



Program Evaluation Survey Manual for Title II Projects

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1. PROGRAM EVALUATION¹

Although this manual focuses on conducting surveys for impact evaluations, it is important to understand the links between monitoring and evaluation and how they fit into the overall scope of the program.

1.1. Monitoring vs. Evaluation

Monitoring and evaluation are usually thought of as a package. It is difficult to do effective evaluation without monitoring, and vice versa. However, monitoring and evaluation are not the same and play different roles in the overall assessment of a project. Monitoring systems track the ongoing progress of the program, while evaluation systems track the impact of project activities.

1.1.1. Monitoring Systems

Monitoring systems focus on program inputs, activities and outputs. To provide an example from a food security program, an input is the financing or staff to manage the program. An activity linked to this input is the training of farmers in improved farming practices. The resulting output is the number of farmers that have completed the training curriculum. Monitoring systems establish that program inputs, activities and outputs have occurred. Additionally, a monitoring system should track progress over time in the access to and the quality of services by beneficiaries. This information is useful for improved management, administration and accountability. Although this information can be used as an initial basis for assessing impacts, monitoring cannot attribute cause and effect, which is the role of impact evaluations.

Monitoring Systems:

Establish that program inputs, activities and outputs have occurred.

Questions answered by Program Monitoring²

1. Were the scheduled activities carried out as planned?
2. How well were the activities carried out?
3. Did the expected changes occur at program level, in terms of:
 - Improved access to services?
 - Improved quality of services?
 - Improved use of services by beneficiaries?

¹ This section is adapted from presentations by Dorothy Scheffel and Bernard Vicary. "Program Design, Monitoring and Evaluation Workshop" conducted by World Vision in Johannesburg, 2001. References: 1.) AusAID. AusGUIDELines: The Logical Framework Approach. Canberra, Commonwealth of Australia, 2000, 2.) CARE'S Impact Guidelines, June 2000, 3.) Cracknell, B.E. Evaluating Development Aid: Issues, problems and solutions. London, Sage Publications, 2000, 4.) IMPACT An Introduction to the Monitoring and Evaluation of US Title II Food Aid Programs. 996, 5.) Levinson, J. Tools to Measure Performance of Nutrition Programs. World Bank. 1999, 6.) WVI Evaluation Department Module, Chapter 10, 2000, 7.) Swindale, A. Monitoring and Evaluation Presentation at World Vision. 1999, and 8.) UNICEF. "A UNICEF Guide for Monitoring and Evaluation." 1991.

² Adapted from Swindale, A 1999.

1.1.2. Evaluation Systems

Evaluation systems are designed to measure impact. Program impacts are results that occur at the community level. These results must be directly attributed to program activities rather than external factors or the program activities must have contributed significantly to the results achieved. Impacts can be intermediate improvements in the capability of program beneficiaries to influence their own lives, such as through improved access to resources, or improved knowledge attained through training programs. More typically, impacts refer to final improvements in the economic and personal wellbeing of individuals who receive goods and services through the program. Impacts are often confused with program outputs, which refer to the quality and quantity of food and services delivered through program activities. Impact evaluations are useful in assessing the effectiveness of programs, especially in their relevance to the issues of concern. They are also used as a basis for future program design.

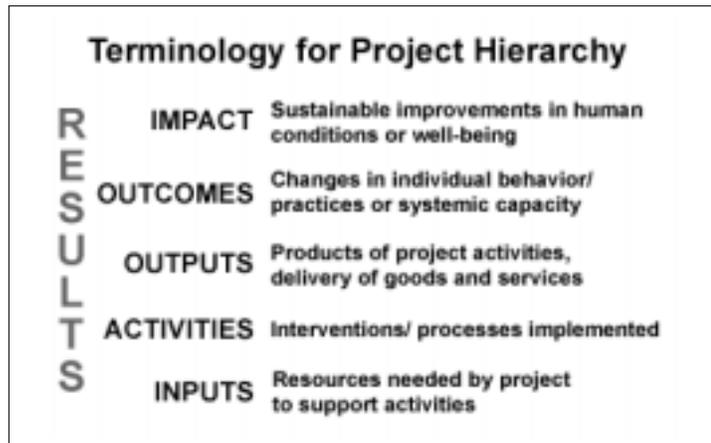
Evaluation Systems:
Measure project impact on communities.

Questions answered by Impact Evaluations

1. Is the program effective in achieving its intended goals?
2. Can the results be explained by some alternative process outside of the program?
3. What change and how much change occurred at the program or beneficiary level that is attributable to the program?
4. What is the cost per unit of output achieved by the program?
5. Is the program an efficient use of resources to meet intended impacts as compared to alternative sources?

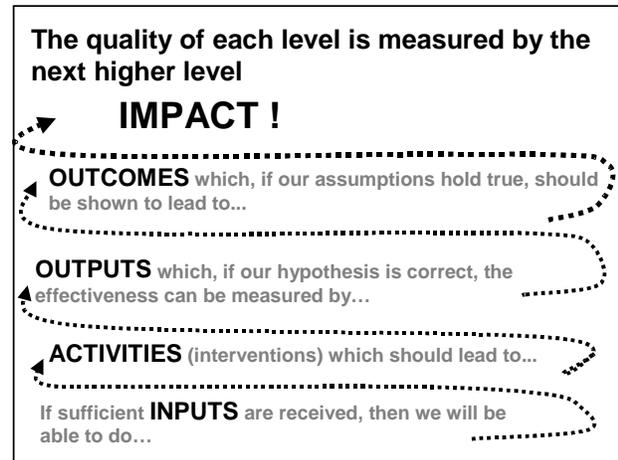
1.2. Program Hierarchy³

Monitoring systems focus on inputs, activities and outputs. Inputs begin a program. They refer to resources needed by the program to support activities. Resources can be money, food, staff or a training center. With these inputs, a program is ready to begin its activities. These activities then lead to outputs such as the delivery of food or services. Outputs lead to outcomes, which occur when beneficiaries actually use their new knowledge or new facilities. Outcomes ultimately lead to impacts. Impacts are the overall goal of the program, and refer to sustainable improvements in human conditions or well being. Evaluations measure these final impacts, which are a result of a chain of events rather than one simple action.

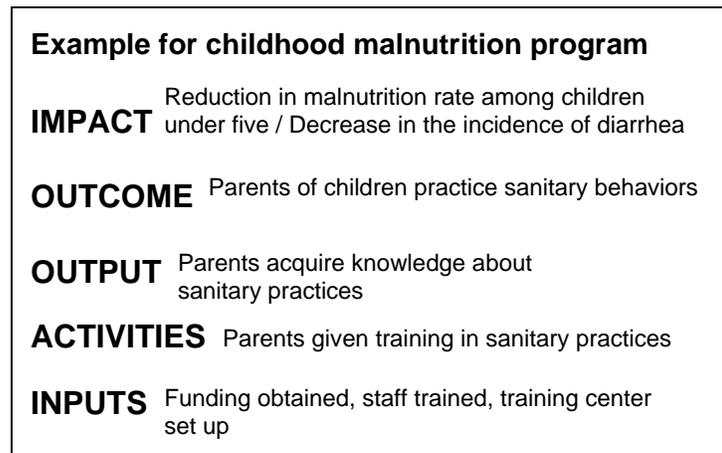


³ Adapted from CARE's "Impact Guidelines" June 2000.

Each level in the program hierarchy is measured by different means. Inputs and activities require ongoing monitoring that can be based on program reports or financial accounts. Program staff generally measure outputs annually. Outcomes can be measured by activity follow-up surveys or by population based surveys conducted for baseline, midterm and final evaluations. Program impacts are always measured by population-based surveys (i.e., baseline, midterm and final evaluations).



In the example below, a child malnutrition program is mapped out according to project hierarchy. The final impact desired in the program is the reduction in malnutrition rate among children under five and a decrease in the incidence of diarrhea.



1.3. Benefits of Monitoring and Evaluation⁴

Program monitoring focuses primarily on the measurement of program-level outputs. It involves the routine collection of information on an ongoing basis to support basic management and accountability functions. Impact evaluations help gauge the extent to which a program results in changes at the community level. These evaluations support the management of current activities, inform resource allocation decisions across program components and support the design or redesign of future interventions. Effective monitoring of program outputs is a critical aspect of evaluating impact. Without knowing who received what quantity and quality of goods and services at what cost, it is difficult to interpret the results of impact evaluations. Using program-monitoring data, it is possible to illustrate linkages between specific program outputs and program impacts.

⁴ Adapted from A. Swindale Presentation 1999.

Key Questions answered by monitoring and evaluation

1. Does the program:
 - Increase access of the target population to program services?
 - Improve community participation in the program?
 - Improve the quality of care to clients?
 - Deliver the expected volume of services?
 - Achieve an acceptable ratio of cost per unit of output?
2. Has the desired change occurred at the household level?
3. To what extent can observed changes be attributed to the program?
4. Which program inputs and activities have the greatest impact on the population?

Monitoring and Evaluation Strengths

MONITORING	EVALUATION
<ul style="list-style-type: none"> • Assess the quantity, quality and timeliness of program inputs • Identify operational constraints to program effectiveness • Determine if a process is meeting accepted standards • Determine whether a program is serving intended beneficiaries • Provide information to improve targeting • Meet donor accountability requirements • Serve as a vehicle to increase community participation • Inform decision-making on the future of a program 	<ul style="list-style-type: none"> • Help identify effects that are attributable to a program • Provide information which will permit cost effective comparisons with other similar programs • Meet donor accountability requirements • Serve as a vehicle to increase community participation • Inform decision-making on the future of a program <p><i>Adapted from Levinson, J. Tools to Measure Performance of Nutrition Programs. World Bank. 1999.</i></p>

Complementarities between Monitoring and Evaluation

ITEM	MONITORING	EVALUATION
Frequency	Periodic, regular	Episodic
Main Action	Keeping track, oversight	Assessment
Basic Purpose	Improve efficiency, adjust work plan, accountability	Improve effectiveness, impact, future programming
Focus	Inputs, process outputs, work plans	Effectiveness, relevance, impact, cost effectiveness
Information Sources	Routine or sentinel systems, field observation, progress reports, rapid assessments	Same, plus surveys, studies
Undertaken By	Program managers Community workers Community (beneficiaries) Supervisors Donors	Program managers Supervisors Donors External evaluators Community (beneficiaries)
Reporting To	Program managers	Program managers

	Community workers Community (beneficiaries) Supervisors Donors	Supervisors Donors Policy makers Community (beneficiaries)
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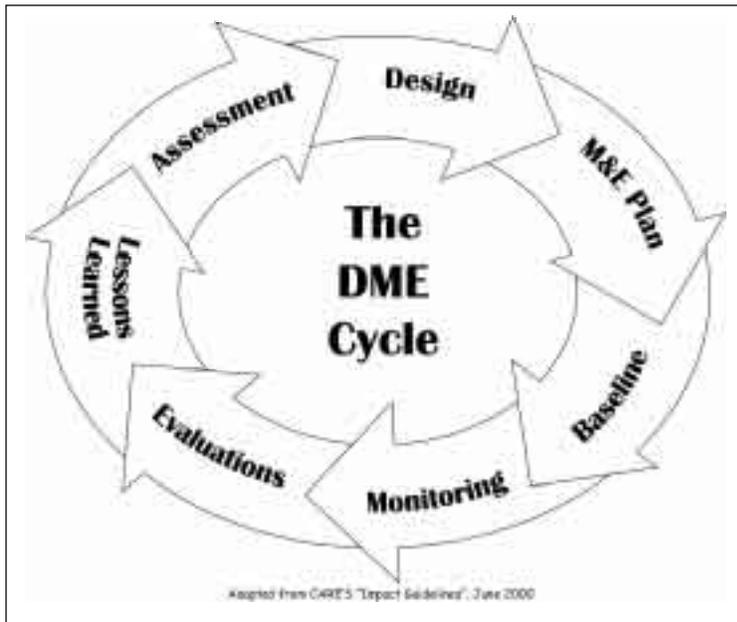
Derived from UNICEF (1991), *A UNICEF Guide for Monitoring and Evaluation*

1.4. Evaluation in the Program Cycle

The design, monitoring and evaluation (DME) cycle is a continual process that begins with a:

1. **Long-range strategic plan** that sets the broader direction of the organization's activities. Programs should never be developed in isolation, but must be embedded in long-term programming that coordinates many projects to achieve their over-arching goals.

2. **Assessment** is the next phase of the DME cycle. Assessment is also called needs assessment. This information allows program planners to design a program that is-in tune with the needs and



opportunities of the beneficiary community. All key stakeholders should be involved in choosing the problems to be addressed in program design.

Before the problem tree analysis is done--or as part of it-- it might be useful to engage the community in a "cause and consequences" to prioritize the key problems that ought to be addressed by the community.

This step should also include a **problem tree analysis**, which analyzes the results of the assessment. This analysis defines

the program's goals, strategic objectives and intermediate results. The problem tree analysis provides guidance in all aspects of program planning and design.

3. **Program design** is the next phase. Program planners create a detailed implementation plan for the project that specifies what types of activities will be implemented and when.

4. The **monitoring and evaluation plan** needs to be completed *before* a program begins.

5. The **baseline study** survey is the first step in the monitoring and evaluation process. This should be completed before program activities begin. In reality, the baseline is normally done a few months after activities

The **monitoring and evaluation plan** is more effective if it is integrated into the project from the beginning planning stages

begin, but it should be done as soon as possible. This survey will serve as a benchmark. For example, the baseline study might indicate that 10 percent of farmers are currently (i.e., before the program) using improved farming techniques. If the program were promoting improved farming techniques, one would be able to find out if more farmers were using improved farming techniques after the program sets up its demonstration plot and gives extension sessions on the improved techniques.

6. **Program monitoring** takes place throughout the life of the program. It is important to keep detailed records of the activities implemented, the number of people reached and what resources were allocated to the project.

7. **Evaluations** are conducted in the middle (i.e., mid-term evaluation) and at the end (i.e., final evaluation) of the program cycle. Post-program evaluations may even occur well after program completion. These evaluations should use the same survey methodology and questionnaire used in the baseline survey. If the same questionnaire is used, it is easy to compare results between different years and at different stages of the project. The quality of these evaluations depends a great deal upon the quality of the baseline survey and program monitoring. At both the mid-term and final evaluation, a qualitative review should take place as well as the review of quantitative survey data.

8. **Applying lessons learned** to the next phase of the program is the most important step. The purpose of evaluation data and analysis is to show what works and what doesn't work in terms of meeting the program objectives.

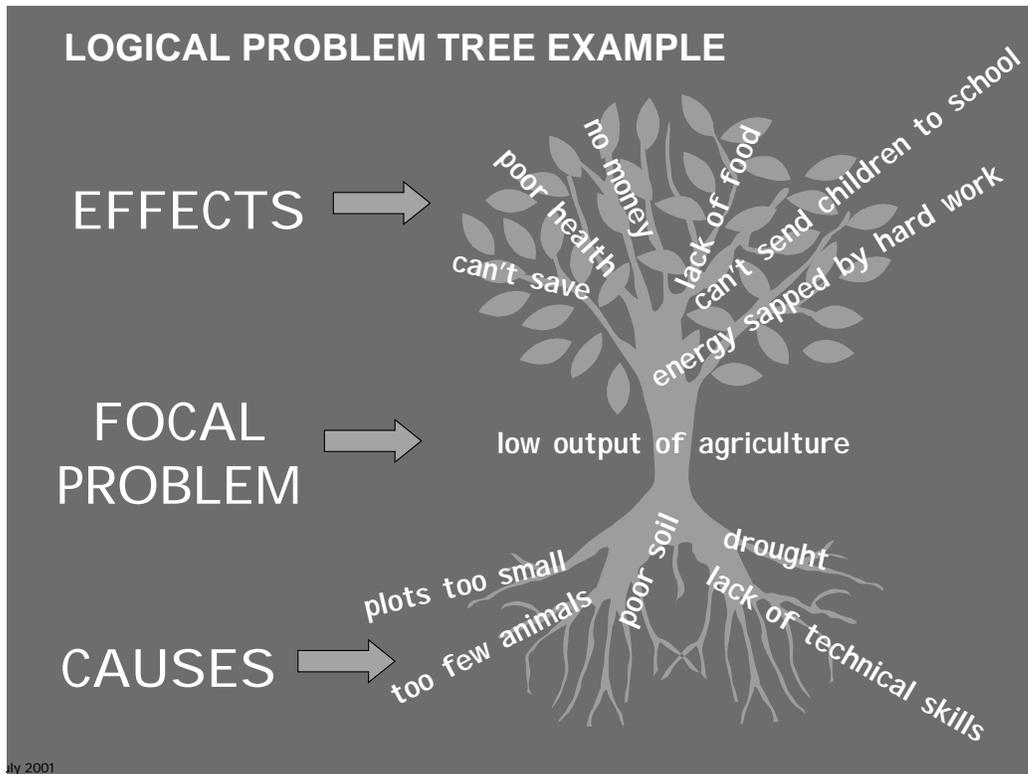
1.5. The Cause and Effect Framework⁵

Converting needs assessment or diagnosis into a logical problem tree is an essential step in program design. The problem tree can be the foundation of any monitoring and evaluation system. Indicators are discussed in greater depth in the next chapter.

Cause and Effect:
Converting diagnosis into a logical problem tree is an essential step in program design

A logical problem tree maps out the causes and effects of problems in the communities in a program area.

⁵ Adapted from a presentation by Bernard Vicary. "Program Design, Monitoring and Evaluation Workshop" conducted by World Vision in Johannesburg, 2001.



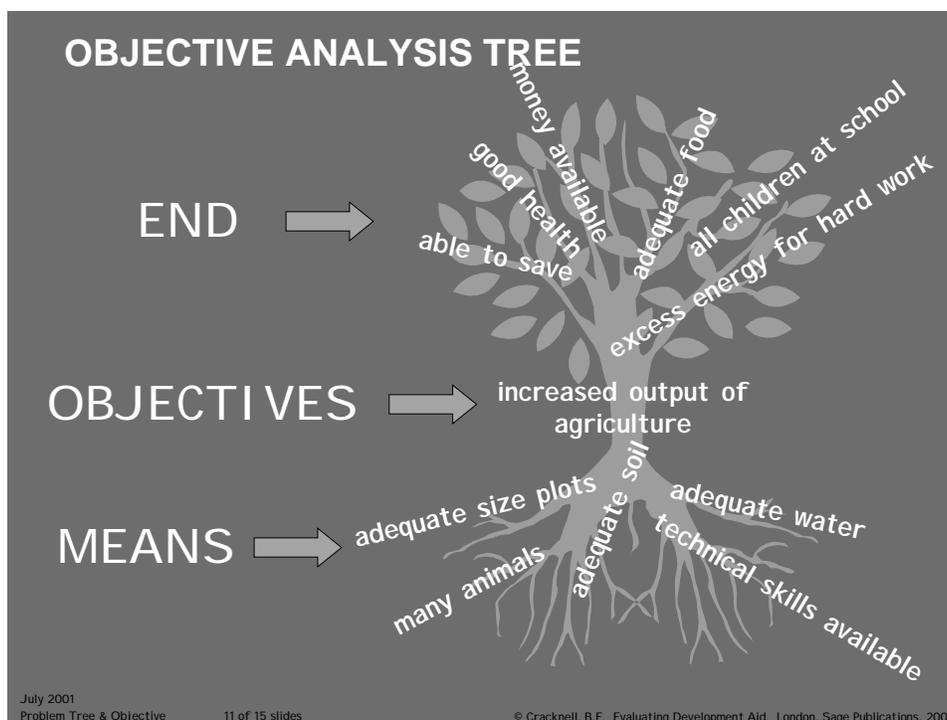
In the sample problem tree above, the needs assessment in the sample community focuses on agriculture. The needs assessment in this community revealed that there are several problems in the community. People had no money, were in poor health, didn't have enough to eat and could not send their children to school. In this case, many of the problems or obstacles voiced by the community and observed by the needs assessment team were linked to one focal problem, low agricultural output. Thus, it is logical to design a program with the goal of increasing agricultural output. Before a program can be designed to increase agricultural production, it is important to understand the causes or the root of the problem. In the sample problem tree, the causes of low agricultural production are small agricultural plots, too few animals, lack of technical skills, poor soil and recurring drought.

The next step is an analysis of objectives. To do this, simply turn the negative statements into positives, or turn a problem into an objective.

In the sample community, one cause of the problem is a 'lack of technical knowledge.' To put this into the objective tree, simply reword the cause of the problem to make it a means or opportunity. In this case, it is 'increased technical knowledge.' Thus the focal problem of low agricultural production becomes an objective of increased agricultural output. Effects of the problem, 'can't send children to school' and 'no money,' turn into ends, 'money available' and 'children at school.' The effects, focal problems, and causes of the sample community are also described on the chart below.

EFFECTS	Can't send children to school	➡	ENDS	Able to send children to school
FOCAL PROBLEMS	Low agricultural output	➡	OBJECTIVES	Increase agricultural output
CAUSES	Plot size too small	➡	MEANS	Adequate size plots

The objectives are mapped out on an objective tree below.



The problem tree is an important step in analyzing a needs assessment. After the problem tree has been turned into an objective analysis tree, the final step is to link the problem tree and objective analysis to the expanded logframe matrix. These relationships are represented in the table below. The two do not match exactly, but are describing the same process in different terms.

Problem Tree	Logframe	Example
Effect	Goal	Increased Food Security
	Strategic Objective	Increased Food Availability
Focal Problem	Intermediate Result	Increased Agricultural Production
Causes	Activities	Teaching Improved Farming Techniques

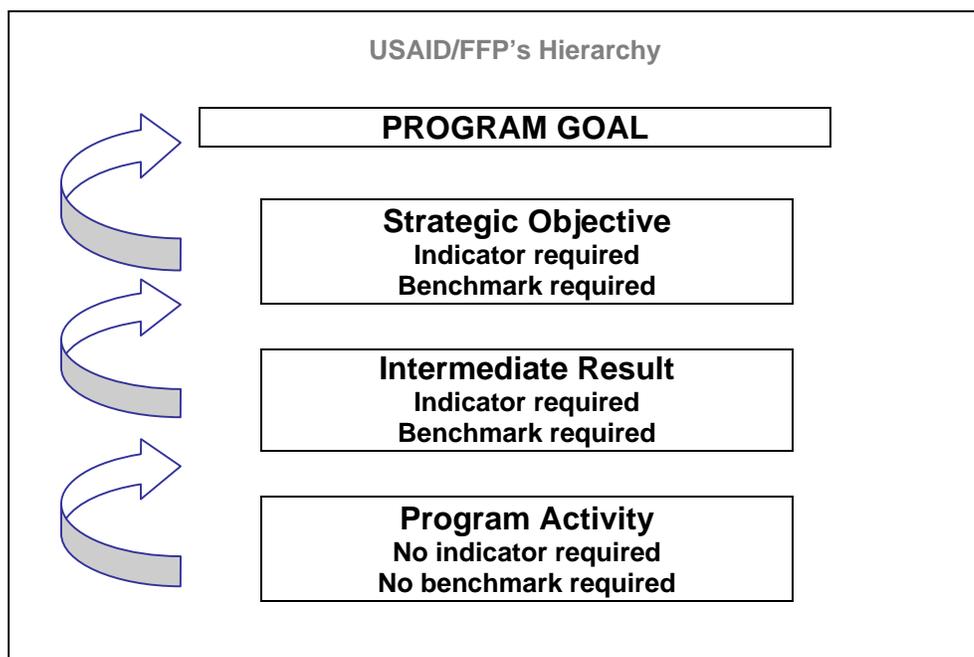
It is important to understand the link between the problem tree and USAID's terminology. The 'effects' of the problem tree (e.g., lack of food) relate to the strategic objectives and goals of the project. A 'goal' might be 'increased food security' and a 'strategic objective' here might be increased food availability. The 'focal problem' relates to 'intermediate result,' which would be

‘increased agricultural production.’ Causes of the problems will relate to the ‘activities’ of the project. For example, ‘lack of technical knowledge’ will relate to an activity of teaching improved farming practices. The expanded logframe matrix will always be based upon the problem tree analysis.

2. INDICATORS⁶

2.1. USAID/Office of Food for Peace Hierarchy

Program evaluation is linked to measurable impacts described in indicators. It is important to understand how indicators fit into the overall project hierarchy and terminology.



2.1.1. Definitions

Program Goal: The highest level of development result, which represents the ultimate purpose for achieving one or more objectives in a strategic plan.

Strategic Objective (i.e., ‘purpose’ in other logframes): A significant, measurable development result that can be achieved, or toward which progress can be made, and for which the operational unit is held responsible.

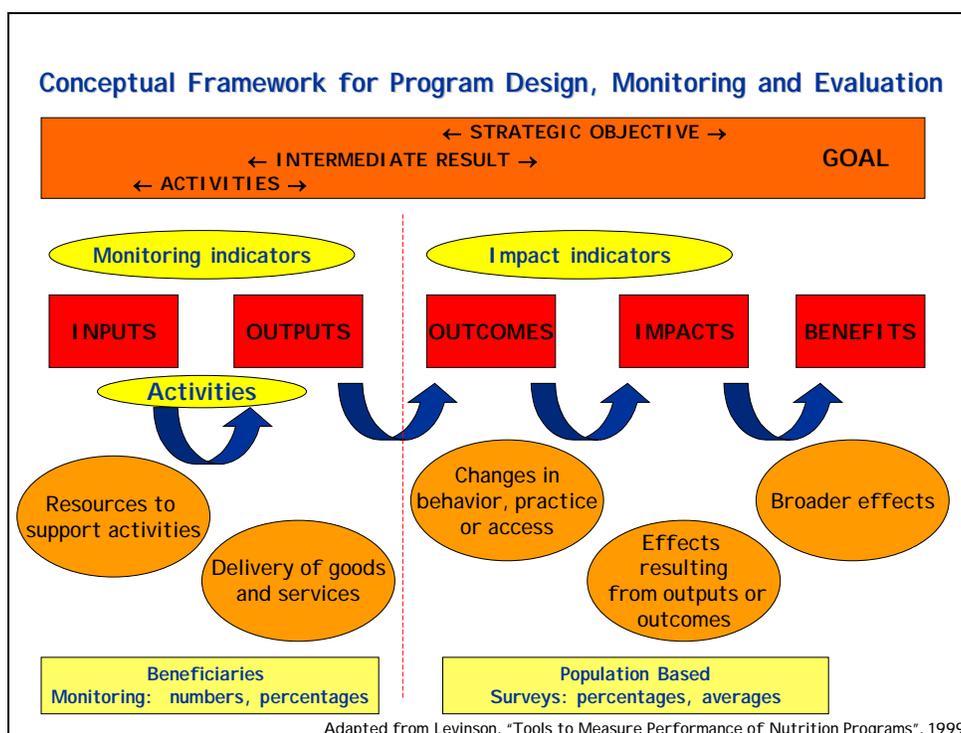
Intermediate Result (i.e., ‘output’ in other logframes): A measurable outcome of one or more activities, which contributes to achieving a higher-order strategic objective.

Program Activity: A specific program component, the outputs of which are designed to contribute to clearly defined results and objectives.

⁶ Adapted from presentations by: Dorothy Scheffel and Bernard Vicary. “Program Design, Monitoring and Evaluation Workshop” conducted by World Vision in Johannesburg, 2001. References: CARE’S “Impact Guidelines”, June 2000; Levinson, J. “Tools to Measure Performance of Nutrition Programs”. World Bank. 1999.

2.1.2. Suggestions for Writing Goals, Objectives, Intermediate Results

1. Goals, Objectives and Intermediate Results do not need to be written in measurable terms; indicators will be developed to measure the objectives and intermediate results.
2. Goals are the broad aims of the project, the significant longer term expected changes, and can be written in broad terms.
 - Goal: “To improve the household (HH) food security of the targeted population”
3. Objectives and Intermediate Results are what the project will focus on and can be written more specifically.
4. Objectives and Intermediate Results specify the results or level of change that is expected; the indicators will define how the results will be measured.
 - Objective: “Improved health status of target population”
 - Intermediate Result: “Improved access to and utilization of appropriate water and sanitation facilities”



Programs do not always address all of one strategic objective because the scope may be too large. When working to improve results in one intermediate result (IR), it is important to remember that other nongovernmental organizations (NGOs) or partner organizations may be working on other IRs within the same strategic objective.

2.2. What is an Indicator?⁷

S.M.A.R.T.: An indicator must be S.M.A.R.T.

- S = specific
- M = measurable
- A = attainable
- R = realistic
- T = time bound

Good Indicators are:

- Simple:* measures one thing
- Defined:* each term has a clear meaning
- Measurable:* in quantitative terms (or qualitative when possible)
- Variable:* can show change between subjects and over time
- Valid:* reflects what it intends to measure
- Reliable:* results will be the same regardless of who collects the data

An indicator is an objectively verifiable measurement that reflects the activity, assumption or effect being measured. An indicator is important because it allows comparisons between different populations or individuals and between measures of the same population or individual at different points in time. USAID uses two types of performance indicators, monitoring and impact indicators.

2.2.1. Monitoring Indicators

Monitoring indicators:

- Are monitored and reported annually;
- Measure coverage of activities;
- Are measured by information that comes from routine reporting systems like Management Information System (MIS); and
- Are usually written as a number or sometimes as a percentage if the denominator is known.

There are two levels of monitoring indicators:

1. Input Indicators
 - Resources used to support the primary activities of the project
 - Not normally included in the indicator tracking table required by USAID
2. Output Indicators
 - Products of activities
 - The delivery of goods and services

⁷ Adapted from Anne Swindale presentation at World Vision, 1999 and Dorothy Scheffel presentation at World Vision's Monitoring and Evaluation Workshop in Johannesburg, 2001.

2.2.2. Impact Indicators

Impact indicators:

- Are normally measured at baseline, mid-term and project end, but sometimes annually as well;
- Measure changes;
- Include information usually from surveying representative samples of a targeted population; and
- Are usually written as a percentage or average.

There are two levels of impact indicators:

1. Outcome Indicators

- Changes in behavior or practice
- Adoption of behaviors and practices
- Increased access to resources
- Increased institutional capacities
- Links outputs (i.e., provision of goods and services) to impacts
- Measured normally only at baseline, mid-term and project end, but sometimes annually as well

2. Impact Indicators

- Improvements in production, income, consumption, health and nutritional status
- Effects resulting directly from project outputs or indirectly through outcomes
- Normally measured only at baseline, mid-term and project end

Example of Impact Indicators

IMPACT INDICATORS: Outcome Level

1. % targeted farmers practicing improved farming technologies
2. % targeted households using improved stoves
3. % targeted women reporting improved diet diversity for children (24-59 months)

IMPACT INDICATORS: Impact Level

1. Average household income from sale of selected agricultural products
2. Average yield of three major food crops (cassava, millet and sorghum)
3. % stunting among children (24-59 months) in targeted households

USAID requires an Indicator Tracking Table such as the one below. See Annex 1 for another example of an Indicator Tracking Table.

Indicator Tracking Table Example

Indicator	Baseline	Target Year 1	Target Year 2	Target Year 3
% stunted children	45%	40%	35%	30%
Average rice production	3,000 kg/ha	3,250 kg/ha	3,500 kg/ha	3,750 kg/ha

x% increased,
x% decreased **are not needed**
in the indicator wording as
increase or decrease will be
specified in the indicator
tracking table

2.2.3. Suggestions for Writing a Good Indicator

Objectively Measurable: An indicator must be objectively measurable. Terms like ‘improved,’ ‘strengthened,’ ‘better’ and ‘adequate’ should be avoided. An example of objectively measurable indicators is ‘the percentage of children who are vaccinated.’

Specific Measurement Units: An indicator must include specific measurement units. Unspecific terms such as ‘health practices’ or ‘eating habits’ should be avoided. An example of indicators written with specific measurement units is ‘the percentage of women who perform hand washing before preparing food on a daily basis.’

Program Linked: An indicator must be program linked. This means that an indicator must be as closely linked to the program as possible so that changes in indicator can be reasonable attributed to those activities.

Impact Oriented: An indicator must be impact oriented. It must address the impacts of activities, including at least one indicator of ‘ultimate food security impact’ for each sector. This includes improvement in production, income, consumption, health, and nutrition.

Standardized: An indicator must be as standardized as possible. The use of one or more Title II generic indicators is required when appropriate. See a list of Title II generic indicators in Annex 2.

3. MONITORING AND EVALUATION PLAN

The monitoring and evaluation plan is a key component in the survey research process. It is important that the monitoring and evaluation plan be completed before the survey begins, even in the case of a baseline survey. The monitoring and evaluation plan should consist of a narrative that explains in words what the plan is and an expanded logframe that gathers detailed information in a chart.

3.1. Narrative Monitoring and Evaluation Plan

The narrative plan should clearly spell out the basics of the project's monitoring and evaluation plan. This plan should provide the following information:

- Summary.
- Detailed Monitoring and Evaluation Plan: This section is usually a reference to the logframe, which will put all of the plan details into an easily readable chart.
- Management Information System: This section outlines the data MIS that will keep track of project monitoring activities.
- Evaluation Design: This section describes the schedule for evaluation surveys in addition to a brief description of methodology. Often, questions that will be addressed in the evaluation surveys will be outlined in this section. In addition to the main household survey, this section will list other surveys to be conducted.
- Monitoring and Evaluation Staff: This section describes the personnel required to carry out the monitoring and evaluation plan.
- Environmental Monitoring: This section details the activities required to monitor the environmental impact of the project.
- Performance Indicators and Targets: This section outlines the procedure for obtaining information on performance indicators and targets.

3.2. Expanded Logframe Monitoring and Evaluation Plan

The logframe monitoring and evaluation plan is a chart that includes all of the information required. The chart is designed with all of the project indicators in the left column (e.g., percentage of children fully immunized). The remainder of the table includes information on data collection for each indicator listed in the first column. The columns are as follows:

Indicator Definition: This box provides a clear definition of the indicator. For example, if the indicator is the percentage of children less than 36 months with diarrhea in the last two weeks, it might not be clear what the exact definition of diarrhea is. The definition of diarrhea in the case below is more than three loose stools passed in a 24 hour period.

Data Source: This column explains where the data required to measure this indicator will be obtained. In this box, the source of the primary data (e.g., household survey, project health reports) and the existence of any secondary data (e.g., data from somewhere else such as government statistics) will be explained.

Data Collection Methodology: This column explains how the data will be collected. This could be through a cluster survey, a management information system or project reports.

Frequency of Data Collection: Some of the data for the monitoring and evaluation system should be collected frequently, some infrequently. Typically, evaluation data should only be collected at the beginning baseline survey the mid-term and final evaluation surveys. Most monitoring data should be collected monthly and quarterly using an internal project reporting system.

Who is responsible: It is important to know who is responsible for collecting the data. Often the monitoring and evaluation coordinator has ultimate responsibility, but often project staff such as the health coordinator or disaster management coordinator is responsible for collection data in their work area. Project staff members are always responsible for some part of data collection.

An abbreviated example of an Expanded Logframe Matrix is below. For a complete example, see Annex 3.

LOGFRAME INDICATOR	INDICATOR DEFINITION	DATA SOURCE	DATA COLLECTION METHODOLOGY	FREQUENCY OF DATA COLLECTION	WHO IS RESPONSIBLE
HEALTH: IR 1.2.: Improved nutritional status of targeted children, women and vulnerable groups					
IMPACT:					
% underweight children 6 – 59 months	<u>Meals</u> = eating occasions in household	<u>Baseline secondary data:</u> not available	<u>Primary data:</u> 30 cluster random household survey, verified by mother's report		<ul style="list-style-type: none"> ▪ M&E Coordinator ▪ Health Director ▪ Project staff
MONITORING:					
# eligible children in nutrition program	<u>Eligible children</u> = Malnourished children z-scores < -2	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project nutrition reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	<ul style="list-style-type: none"> ▪ M&E coordinator ▪ Health Director ▪ Health and Project staff

4. PLANNING THE SURVEY

4.1. Survey Design

It is important to prepare a survey design document that clearly explains the objectives of the survey, and the process for achieving the objectives. This document is especially important in the event that the same staff are not available to coordinate the baseline, mid-term and final survey. The survey design document should include the following elements:

Household Survey Objective. The first and most important step is to determine the survey objective. The objective should start with a few sentences clearly stating the ultimate goal of the survey. The objective should include elements of *time*, *place* and *persons*. It is important to link the objective to the impact indicators that will be measured in the survey. For example, an objective might be to determine malnutrition levels in a specific population, at a given time, using indicators of malnutrition.

Impact indicators should be reviewed to determine how to obtain information on these indicators. Most impact indicators (e.g., incidence of diarrhea, use of improved farming techniques) can be measured by information that can be obtained by an evaluation survey. However, the information for some impact indicators may require information from other sources. For example, an impact indicator that looks at number of children enrolled in school may require a separate school records review. Other information such as agricultural yield may require a survey focused only on agriculture. It is important to make a table that lists all of the impact indicators and the data collection methodology that will be used.

Type of Survey. In this section, the type of survey is specified (e.g., nutritional survey, KPC child survival survey, demographic and health survey, agriculture survey). Some surveys are household multi-indicator surveys that have several components, such as household food security, health status and disaster preparedness. A childhood nutrition survey may have a more focused subject, yet may include a section on nutrition knowledge and practice and another section focusing on anthropometric measurements.

Sampling Unit. The person or persons interviewed should be specified here. See Chapter 5 for more information on sampling.

Questionnaire: This section specifies what steps are needed to create and test the questionnaire. See Chapter 6 for more information.

Sampling Method: This refers to the type of sampling method chosen. Most often this will be a two-stage cluster design. Another option is the random sample. See Chapter 5 for more information.

Sample Size. This section should include the sample size and the justification for the sample size. See Chapter 5 for more information.

Sample Selection: This section builds on the information provided for the sample size and includes the sampling frame or a sample from it that lists the villages and population in the project area. In addition, it is important to show exactly how the villages are selected from the list, as well as how the households will be chosen within each cluster. See Chapter 5 for more information.

Time Frame: The time frame helps determine the budget. It is good practice to develop a chronological timeline of activities detailing how much time the survey will take, from the very beginning preparation stage to the final presentation of findings. This will help identify which activities can be undertaken simultaneously and which ones must be done independently.

Staff Recommended: Include each staff member needed and for which part of the survey activities they are needed. Include a description of their job responsibilities and necessary qualifications here. See Section 4.2.1. for more information.

Logistics Checklist: Prepare a checklist that includes everything that must be done before the survey can start.

4.2. Time and People: Staffing the Survey Process⁸

Adapted from MICAH guide.

4.2.1. Survey Coordinator

As soon as the intervention, target groups and indicators have been identified, the next step is to identify a survey coordinator in collaboration with NGO and government partners.

Qualifications: This person will preferably be a professional in a governmental institution or an NGO who is able to work full-time for the duration of the project (i.e., three to four months). The coordinator may also be an independent consultant but should be acceptable to national counterparts. It is important that the survey coordinator have previous experience in conducting surveys and training in scientific methodology.

Role: The coordinator ensures that the entire process runs smoothly and that basic protocols are followed. These include carrying out the first stages of sampling, selecting and training field workers and supervising overall field activities and processing the data. The survey coordinator is also responsible for facilitating the cooperation of other government agencies.

Scope of Work (SOW): See Annex 4 for an example. When hiring a survey coordinator, it is important to draft a good scope of work. The scope of work must include an objective, a list of specific tasks, a description of process and expectations of the output clearly articulated.

Objective: The objective should state the overall goal of the work to be done by the survey coordinator. This should be brief and clearly stated.

⁸ World Vision Canada. “Design and Implementation of Nutrition Surveys, Excerpt from the MICAH Guide”.

Specific Tasks: The specific tasks of the survey coordinator should be listed followed by detailed descriptions of the tasks.

Process: In this section of the SOW, it is important to include who the survey coordinator will use as their primary point of contact and other people with whom the coordinator should work. This is also the section to outline the timeframe of the project and contingency plans should the timeframe need to be modified. This section should also detail the terms of payment for services and costs such as per diem, transportation and accommodation.

Expected output: This section includes the deliverable required from the survey coordinator at the end of the work—in this case, normally a survey report.

4.2.2. Interviewers and Supervisors

The first staff priority is to identify a survey coordinator. The survey coordinator normally identifies the rest of the staff needed for the survey. This includes hiring and training the team of interviewers. In addition to interviewers, the survey coordinator should hire supervisors, one for each team of interviewers. The supervisors should have the same qualities as the interviewers, with leadership capabilities and good organizational skills.

4.2.3. Data Entry Staff

Data entry should begin soon after the survey begins. In this case, it is good practice to minimize the number of data entry staff as it is easier to monitor the quality with fewer people. The data entry staff should be trained before the survey begins.

4.2.4. Data Analyst and Report Writer

The final step of the evaluation survey is the data analysis and report writing. This is a key position and it is important that the data analyst/report writer has strong skills in data analysis.

4.2.5. Determine How Long the Survey Will Take

Early planning of survey activities is crucial because the full survey cycle, from the beginning planning stages to the final report printing, takes several months. A good planner specifies at the outset what should be learned from the survey and how the information will be used. The report format and dissemination plan to share the information should be decided before the survey begins.

A Guideline for an Evaluation Survey Timeline												
	Weeks											
	1	2	3	4	5	6	7	8	9	10	11	12
Survey Prep	■	■	■									
Questionnaire Prep	■	■	■									
Survey Training				■								
Data Collection					■	■	■					
Data Entry						■	■	■				
Data Analysis									■	■		
Report Writing										■	■	
Info. Dissemination												■

- 3 weeks **Survey preparation:** obtain permission from community/government leaders; obtain and compile population data and sampling frame; choose sample; select survey teams and supervisors; organize logistics, collect/purchase needed materials (e.g., bags, t-shirts, clipboards, pencils, erasers).
- 3 weeks **Questionnaire preparation:** complete first draft of questionnaire; get it checked by field staff; pre-test in at least 20 households using participatory rural appraisal (PRA) techniques; finalize questionnaire; translate into local language; copy questionnaires.
- 1 week **Training of interviewers, supervisors, data entry staff:** training should include: how to select households; how to conduct an interview; review of each question on the questionnaire (i.e., how to ask questions and how to record answers); practice interviewing each other; one day of questionnaire testing in a selected community with each interviewer completing a minimum of three questionnaires.
- 2-3 weeks **Data collection:** length of time to collect data will depend on how many interviewing teams are available and your sample size.

An example from Bangladesh:

Allowing approximately 30-45 minutes per questionnaire for each of 42 households in each village, it should take a maximum of 32 hours of interview time per village.

A team of five interviewers should be able to complete one cluster per day, with each interviewer conducting eight or nine interviews per day.

If there are four teams of five interviewers working, it should take approximately 10 days to complete only the data collection. However, because there will be two to three clusters selected per project area, additional time will need to be allowed to travel between project areas. A total of 15 days should be allowed for the data collection exercise.

- 2-3 weeks **Data entry:** initial data entry and analysis using Access, EPI-Info (windows version now available) or SPSS software should be completed in two to three weeks; entering data should start soon after data collection begins.
- 1-2 weeks **Data analysis:** data analysis should take one to two weeks.
- 2 weeks **Report writing:** an additional two weeks can be allowed for preparation of the survey report.
- 1 week **Information dissemination:** in addition to the survey report being sent to the donor and project management, it is also important that the results of the survey are communicated to the communities who participated in the data collection; this can be done at the level of the district officials, but also at the union and village levels.

This guideline is illustrative. Preparation time may take longer if this is the first time conducting a survey. The length of time for data collection may take longer if the sample size is large or if travel between sites is difficult.

When scheduling the survey, it is important to consider the season. During rainy seasons, it may be impossible to reach remote areas of the project area. Also, for agriculture questions, it might be necessary to conduct the survey after a particular growing season. Diarrhea and malnutrition are also worse during certain times of the year. These seasonal changes must be taken into account not only during the planning phases of the survey, but also in the analysis of results. And finally, it is most useful to conduct baseline, mid-term and final evaluation surveys during the same time period to facilitate comparing data.

Seasonality will affect the planning of the survey and the analysis of the results

5. CHOOSING A SAMPLE

5.1. Why Choose a Sample?⁹

It would be time-consuming and expensive to ask everyone in the program area questions about the program. The purpose of sampling is to reduce the cost of collecting data about a population by gathering information about a sub-set of the population. The portion of the population interviewed is called a sample.

A **sample** is a small group of people to interview within the larger population of the project area you want to study

5.2. Sample Size Calculation

There are several factors to consider before choosing the sample size.

5.2.1. Sample Size Calculation Factors

- **The expected precision:** The greater the precision desired, the more households needed in the sample.
- **The probability of Error Chosen:** The smaller the probability, the more households needed in the sample.
- **The expected prevalence:** The nearer the expected prevalence of what you want to measure is to 50 percent, the greater the sample size required. For example, when measuring malnutrition, there is an expectation of 50 percent of the children being malnourished. A larger sample size is required than if the expectation is that 10 percent of the children are malnourished.

5.2.2. Sample Size Formula

The sample size should be determined by using a standard formula to detect change over time:

Sample Size formula used to detect change over time:

$$n = \text{deff} [(Z_{\alpha} + Z_{\beta})^2 * (P_1 (1 - P_1) + P_2 (1 - P_2)) / (P_2 - P_1)^2]$$

Where:

- n required minimum sample size per survey round
- deff 2, the commonly used expected design effect for cluster surveys
- Z_{α} 1.645 (95 percent confidence, one-tailed test), this corresponds to the degree of confidence with which it is desired to be able to conclude that an observed change of size would not have occurred by chance
- Z_{β} 1.282 (90 percent power, one-tailed test), this corresponds to the degree of confidence with which it is desired to be certain of detecting a change of size
- P1 expected prevalence for first survey

⁹ This section is based on Magnani, Robert. *Sampling Guide*. Washington, DC: Food and Nutrition Technical Assistance project, Academy for Educational Development, 2002.

P2 expected prevalence for follow up survey ($P2 - P1$) = the size of the magnitude of change we want to measure

Sample size calculations ($Z_{\alpha}=.95$ and $Z_{\beta}=.90$):

P 1 Expected prevalence First survey	P 2 Expected prevalence Second survey	Expected % change	Sample Size Needed
10	15	5	1491
10	20	10	428
10	25	15	211
15	20	5	1970
15	25	10	540
15	30	15	257
20	25	5	2382
20	30	10	634
20	35	15	295
25	30	5	2724
25	35	10	711
25	40	15	349
30	35	5	2999
30	40	10	771
30	45	15	349
35	40	5	3204
35	45	10	814
35	59	15	364
40	45	5	3341
40	50	10	840
40	55	15	371
45	50	5	3410
45	55	10	848
45	60	15	371
50	55	5	3410
50	60	10	840
50	65	15	364

5.3. Factors Influencing Sample Size

There are many things to consider when deciding upon sample size. The main considerations are listed below.

5.3.1. Sampling Unit

It is important to decide what the sampling unit is. The sampling unit is a single unit of the population (e.g., a person, a household). Often, more than one sampling unit is required, depending upon the information gathered in a survey. This is important information to have when choosing the sample because it can change the number of households in the sample or

make it impossible to interview someone from each household. For example, if one wants to know the prevalence of diarrhea in children less than 36 months, one would want to interview women with children less than 36 months. This will be important for the sample selection because not every house will have a child of this age. Thus, the sample selection must factor in the need to skip households to find one with a child less than 36 months. If the survey is focused only on one subject, this will not change the actual sample size needed; it will only change the selection procedure.

Multi-indicator surveys that ask questions about several issues such as health, sanitation and agriculture often have more than one sampling unit. For example, the survey may ask questions about water use and access. Women are usually assumed to have more knowledge regarding water issues, thus the sampling unit would be the woman of the household. Usually, there is a woman in every household. But if one wants to ask questions about children less than 36 months, a house with a child less than 36 months is needed.

To take the example of a house with small children, one needs to know how many houses will be found with children less than 36 months and how many will be found with no young children. The first thing to do is look at the population data of the region to be surveyed. In Bangladesh, for example, 8 percent of the country's population is under the age of 36 months. If the average family size is six, multiply that by the percentile of population under the age of 36 months, resulting in 48 percent. It can be assumed that about 48 percent or almost half of the households surveyed would have a child less than 36 months. In other words, one out of every two households will have a woman in the house with a child less than 36 months. One can ask her questions both about the water access and diarrhea.

Bangladesh example:

$$0.08 \quad \times \quad 6 \quad = \quad 0.48$$

(of pop < 36months) (avg. family size) (families have child < 36 month)

Do not skip every household that does not have small children or some other sampling unit requirement because this might bias the sample. Perhaps families without small children have different water needs and uses. Thus, to be sure to have enough families with small children, more households than originally estimated by the sample size calculation will have to be interviewed. In this case, the sample size must be doubled to ensure that there are enough responses from women living with children less than 36 months. The selection of sample size for multi-indicator surveys is explained in more detail in the Bangladesh survey design document in Annex 5.

5.3.2. Budget and Logistical Considerations

The ideal objective in determining the sample size is to have the highest degree of precision for the smallest error risk. The limiting factor is the available means. How many surveys can be completed in one day? How much time is allotted for the survey? What is the budget for the survey?

5.4. Sample Selection Method

5.4.1. Probability Sampling

It is important that the sample resembles the actual project area as closely as possible. For example, if 70 percent of the people in the project area are farmers, then it is important that the sample contain about 70 percent farmers. If one out of every four children is malnourished, then it is important that one out of every four children in the sample be malnourished.

It is unlikely that there is detailed information on all of the characteristics of all of the people in the project area. To ensure a reflection of the larger project population one must choose the sample so that each person or household has an equal chance of being chosen. That means that the village chief's family or the households that are easiest to get to by car can't just be chosen for obvious reasons. If the sample is chosen using probability sampling where each household has an equal chance of being chosen, it is likely to result in a portion of people to interview with characteristics resembling the characteristics of the entire population.

Probability Sampling: each sampling unit has an equal probability of being sampled

Random Sampling

Random sampling is the simplest form of probability sampling. Each household in the entire area to be surveyed is listed by a number. Then, using a random number table or a computer, households are randomly chosen. The selection of one household is independent of the selection of another household.

The advantage of this method is that it has the least bias and, therefore, the sample is more likely to resemble the characteristics in the total population being surveyed. However, this method has several disadvantages. It is especially expensive and time consuming. In rural areas, it is very difficult to do random sampling because it is impossible to find a list of all of the households.

A Sampling Example

A bag of stones (or marbles):

- 100 stones in the bag
- Each stone represents a child 6-59 months
- 30 Red stones = 30 malnourished children
- 70 Blue stones = 70 normal children

Random sample:

- Remove 30 stones from the bag without looking at the color
- Calculate the percentage of red stones

Non random sample:

- Place all stones on the table
- Choose 30 red stones only (as directed by village leader)

Systematic Sampling

Systematic sampling is a modification of simple random sampling. Every household should still have the same chance of being surveyed. To conduct systematic sampling, every n^{th} household is chosen. This can be any number (e.g., every fifth household, every tenth household). With this method, care must be taken to ensure that the list is not ordered in any regular way that would bias the sample. For example, if the village leader is always the first on the list and every fifth household is chosen, the chief will always be missed. The drawback to this system is that if the lists are not random, the potential for bias is great. Like random sampling, a complete list of households is needed for this method. In most cases, this is very difficult.

Two Stage Cluster Sampling

Random sampling and systematic sampling produce less bias, but require population data that is often difficult to obtain. Often, in rural areas it is impossible to find a list of houses. It is very costly and time consuming to create such a list and then to find out exactly where every house is. The cluster sampling method has simplified the procedure, selecting groups of households that are close to each other.

Two Stage Cluster Sampling
is often the most feasible method in rural areas where limited population data is available

The first step in the two-stage cluster sampling is to select the cluster or community to be surveyed. The next step is to select the households within that cluster. The advantage of this method is that it is more feasible in rural areas. The disadvantage of this system is that sampling error or potential bias is increased because households are not chosen independently of other households. Instead, the household's neighbors are chosen, and they often influence each other.

When using this system, a minimum of **30** clusters is generally recommended. More clusters can be used if the sampling size is large.

5.4.2. Sampling Frame

The sampling frame is the complete list of clusters in the project area. This complete list must be accompanied by estimated population or number of households if there is no population data available for each village, town or cluster included on the list. This type of population data is usually available at government statistics offices. If this data is not available in the project area, it is important to meet with local leaders and government officials to create an estimated list. All of the data must be collected in a similar way and compiled into one list that includes the entire project area. The cumulative population must continue from one district or region to the next. If census data is used for one region, then it must be used for all regions. If more recent records from local government officials are used in one project area, then they must be used in all project areas. In the same way, if the villages are listed alphabetically in one district or province, then they must be listed alphabetically in all districts or provinces.

It is a good idea to create a chart in a software program such as Excel that will organize the sampling frame. The columns will change for each country, depending upon their political

boundaries. The columns, which will be different for every country, might read something like this:

- Province or State.
- Union or Rural Commune or District.
- Population or Number of Households per Village.
- Cumulative Population or Number of Households. This will usually be cumulative of the entire project area, NOT just one project area or province.
- Cluster Selection. This column will be used to mark the clusters or villages that are selected for the sample.

EXAMPLE FROM BANGLADESH (Abbreviated)

1. District / Thana	2. Union	3. Village	4. Population per village	5. Cumulative Population	6. Cluster selection
BOGRA DISTRICT					
SARIAKANDI THANA					
	FULBARI				
		Chhagaldhara	646	646	3
		Char Domkandi	186	832	
		Domkandi	158	990	1
		Dhapara	172	1162	1
		Sonatala	196	1358	
		Faringa Para	41	1399	1
		Fulbari	1164	2563	4
		Dargahtali	40	2603	
		Majbari	250	2853	1
		Harina	350	3203	1
		Baluatair	138	3341	1
		Amtali	198	3539	
		Ramnagar	370	3909	2
		Char Ramnagar	98	4007	1
		Katakhali	346	4353	
		Chakibari	272	4625	1
		Goalbatan	115	4740	1
		Ramchandrapur	410	5150	1
		Bhita Para	95	5245	
	HATSHERPUR				
		Char Barurbari	111	5356	1
		Nij Barurbari	137	5493	
		Chak Ratinath	161	5654	1
		Dhanar Para	63	5717	
		Hat Sherpur	437	6154	2
		Naya Para	65	6219	
		Karanja Para	74	6293	
		Dhega Para	69	6362	1
		Karnibari char	60	6422	
		Khord Balali	629	7051	2
		Dharband	144	7195	1
		Nij balali	837	8032	3
		Sahanbanda	99	8131	
		Shimulbari	21	8152	
		Tajur Para	109	8261	
		CUMULATIVE TOTAL		8261	30

5.4.3. Cluster Selection

1. Calculate the sample size required.
2. Determine the number of households or individuals needed per cluster.
3. List the names of the all the districts, unions and villages in the area to be surveyed, as listed in the chart above. Fill out columns 1, 2 and 3 for each project area.
4. List either the population or number of households per village in column 4; either population or household number can be used as long as there is consistency throughout the sampling frame.
5. Calculate the cumulative total number of the households or population in column 5.
6. Calculate the sampling interval (i.e., total cumulative population or number of households per 30 clusters). In the above example, the total cumulative population is 8261. Divide this number by 30 to get 275.37. Round to the closest number for the sampling interval (e.g., 275 in this example). Of course, the numbers will be much bigger for the sampling frame because there will be hundreds of villages in the entire project area.
7. Select a random number between zero and the sampling interval calculated in column 4 from the Random Number Table in Annex 6 or the serial number on a bill of currency as shown below.
8. The random number identifies the first village or cluster to survey.
9. Add the sampling interval to that number to find the next cluster.
10. Continue until 30 villages or clusters are identified.

Currency Serial Number

Randomly select a bill of currency from a friend's pocket. Look at the registration number on the bill. The registration number on this bill is **L76901812**. Use the numbers from right to left until you have a number that is as high as possible without being more than your sampling interval. A sampling interval of 296 was used for the above example. On this bill, the first number from the right is 2. The second number is 1. So, our random number is 21. The first cluster is at the site of the 21st household. From there, add 275 to 21 to arrive at 296. The second cluster is at the site of the 296th household, and so on.

Random Number Chart Selection

Another way to choose a random number is to use a random number chart. There is a Random Number Table in Annex 6. To use this chart, one closes his/her eyes and touches a pencil to the chart. The number closest to the pencil is the random number. If a number with more than one digit is needed, add the number to the selected random number's right. Keep adding as necessary. For example, if the pencil is closest to a 4, that is the random number. If the next number to the right of the 4 is a 9, then the random number can also be 49. Decide in advance how many digits are needed for the random number.

Potential problems / challenges with the cluster selection:

The program area will likely include larger towns. If project activities will include town residents, then they will also need to be included in the sampling frame. If they are not part of

the targeted activities, then the towns should not be included in the sampling frame. If the towns are included, there may be two or more clusters selected in each town with a high population. If that occurs, the segmentation method may be the easiest way to select the households to survey.

5.4.4. Selecting Households in Each Cluster

When using the two-stage cluster selection method, it is important to focus on not only how the clusters are chosen, but also on how to choose the households within each cluster. Ideally, there will be a list of each household in the village or cluster and thirty households can be randomly chosen. However, this is not practical in most situations. More practical solutions are listed below. There are two methods, the first being the more preferable.

Segmentation Method (preferred method)

Graphics from Bernard Vicary, WV Ministry Standards, forthcoming.



1. Draw a detailed map of the village that includes all households and geographical boundaries in the village as in the example below. It is a good idea to have someone from the village draw the map, such as a village leader or schoolteacher. It is also a good idea to gather this information before interviewing starts. As a last resort, the survey team supervisor can draw the map upon arrival in the village.
2. Divide selected sample clusters into smaller segments of approximately equal size. The size will be based on the

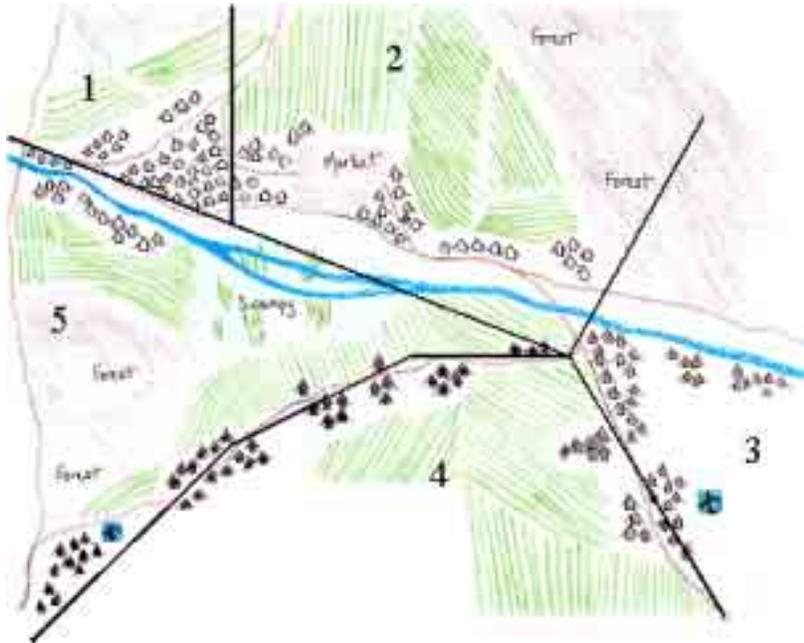
number (i.e., population, households) intended for interview per cluster.

3. Choose one segment randomly from each cluster.
4. Interview all households in that chosen segment.

More Specific Instructions:

1. Calculate the number of segments that will be created per cluster using recent census information.
2. Divide the total number of households in the cluster by the number of households to interview per cluster (e.g., 150 households total / 30 households to interview = 5 segments).
3. Update the cluster map, verify or update external boundaries and enter useful features that could be used to divide the cluster into recognizable segments.
4. Count and indicate the location of households in the cluster on the map.

5. Based on the cluster map, divide the cluster into equal sized segments, as in the example below).



6. Choose one segment at random using currency serial number or random number table, as described above.
7. Interview all households located within the boundaries of the randomly chosen segment. The number should equal approximately 30, although it may vary by as many as five households.

5.4.4.b. RANDOM WALK METHOD

1. Choose a central location in the village or cluster.
2. Randomly select a direction in which to begin to walk by throwing a pencil in the air and walking in the direction that it points when it falls to the ground.
3. Choose a random number between zero and 10 from a random numbers table or from the serial number on a bill of currency. The random number is the last digit of the random number that was chosen.
4. Begin walking in the direction that the pencil has pointed, counting the houses, until the random number that was chosen is reached. That will be the first house to interview.

Systematically choose the remainder of the households in the cluster, for example:

- Go to the next nearest household;
- Go to the second, third or fourth nearest households; or
- Always go to the right after exiting.

An alternative: If the houses are very far apart, steps three and four can be eliminated and the closest house in the direction that the pencil has pointed can be used.

IF THERE IS A TEAM OF 5 INTERVIEWERS: (FOR BOTH OPTIONS)

1. The interviewers can work in teams of two and three, each team spinning a pencil and going in different directions.
2. The interviewers can alternate interviewing the houses they visit until they have completed the required number of houses for that cluster.

Potential Problems / Challenges with Household Selection:

1. The person needed to interview is not home. For example, if one needs to interview mothers with children under five and only the grandmother is at home with the young children.
2. The selected village cannot be reached because there have been heavy rains and you cannot cross the river.
3. The selected village is very small and has fewer households than are to be interviewed in each cluster.
4. Separate households are difficult to identify. For example, three families are living in the same house and eating together.
5. No one is at home.
6. The resident of the household refuses to be interviewed.

If any of the above situations are encountered, a supervisor must be notified, and s/he will make a decision regarding the case. Always make a note so that the problem can be considered during analysis.

6. QUESTIONNAIRE DESIGN¹⁰

6.1. Requirements for a Good Questionnaire

The questionnaire is the main instrument for survey research. A good questionnaire seeks to obtain the information required to meet all survey objectives with as few questions as possible. It should provide reliable data; in other words, the same answer will be provided by the same respondent regardless of who asks the question or where the question is asked. A questionnaire should outline exactly how questions should be asked. Questions and instructions for asking the questions must be clear. This way, each interviewer will ask the question in the same way. The most important quality of a good questionnaire is that every question has a purpose.

Additionally, the questionnaire must be translated in a way that ensures both the interviewer and respondent interpret the meaning in the same way and, thus, have the same understanding about what information is sought. In this way, variability between interviewers is reduced.

6.2. Questionnaire Layout

The layout of a questionnaire is important because it guides the interviewer through the survey process. The easier and clearer the layout, the less chance for error.

6.2.1. Question Order

Indicator

The questionnaire should be designed around indicators. Each question should be essentially linked to an indicator. It is logical to group the questions by indicators. For example, all of the agricultural production questions should be grouped together, and all the water and sanitation questions should be grouped together. Usually, a questionnaire will begin with a section on demographics or household characteristics.

Sampling Unit

Multi-indicator surveys might use several sampling units. A sampling unit is a single member of a sampling population or, in cluster sampling, a collection of sampling units. This often happens when it is necessary, for example, to ask the woman of the household about health and sanitation and to ask the man of the house about cash crops. If this is the case, it is important to group all of the questions for the women together and all of the questions for the man together. Similarly, if there are demonstration questions that involve moving about (e.g., looking at the latrine) or getting out equipment (e.g., for anthropometric measurements), group those questions at the end. These actions will break the flow and concentration of the respondent and it might be hard to get him or her back into answering questions again.

¹⁰ Based upon a presentation in 2001 by Dorothy Scheffel at a VW Ethiopia Monitoring and Evaluation Workshop.

Logical Event Sequence

Never give the answer before the question is asked. For example, it would not make sense to ask a woman if she has ever heard of oral rehydration solution (ORS) and then immediately after ask her what she gives her child when he or she has diarrhea. Because ORS is mentioned in the first question, she might think that this is the desired response and repeat it, aiming to please.

Filter Questions

In every survey, there will be questions that don't apply to every respondent. For example, if the respondent does not have a latrine, then it doesn't make sense to ask how far the latrine is from the house. Similarly, if there is no child less than 36 months in the house, then it doesn't make sense to ask how often a child less than 36 months has diarrhea. By asking these questions, there is a risk of getting false information. To avoid wasted time and biased results, it is important to include filter questions in the survey. For example, "Do you have a latrine?" and "What kind of toilet does your family use?" are filter questions that establish the presence of a latrine or toilet. If the respondents say they "*use the bush*" or do not have a latrine, then skip the questions related to the latrine. The instructions should be clearly spelled out on the questionnaire.

Filter questions are one of the most important elements of a good questionnaire. With well thought-out filter questions, the survey will flow well, save time and ensure accuracy. An example is provided below. For a complete example, see the Bangladesh Baseline Survey Questionnaire in Annex 5.

Example of Skipping Questions

512. Did you seek advice or treatment from someone outside of the home for _____'s (name of child < 36 months) diarrhea?

- | | | |
|--|---------------|-------------|
| | 1. Yes | |
| | 2. No | ⇒ go to 601 |
| | 3. Don't know | ⇒ go to 601 |

Office Use Only

512.

--

513 - 515. Where did you seek advice or treatment?

- | | |
|--|---------------------|
| | 513. Hospital |
| | 514. Village doctor |

Office Use Only
1=yes, 2=no

513.

--

514.

--

SECTION 6: EMERGENCY PREPAREDNESS / RESPONSE:

INSTRUCTIONS: The questions in this section are for the WOMAN in the household, normally the mother.

601 - 602. When was the most recent flood or cyclone in your area?

DEFINITION: Flood = Beyond normal inundation where rising water cuts of transportation routes and damages homesteads. Cyclone = Coastal storm with tidal surges that produces high wind speed that causes property damage (crops, houses, or trees) or causes human or animal death.

	Month	Year	Never	
601. Flood				
602. Cyclone				

Office Use Only

601.

--

602.

--

6.2.2. Boxes for Field Editing

When designing a questionnaire, it is useful to make boxes on the left so the interviewer can mark the answer given by the respondent and boxes on the right for field editing. When in the field, the interviewer will complete the interviews for the day and then take the questionnaires to the team supervisor. The team supervisor can then conduct a field edit of all questionnaires before leaving the field, using the right boxes to verify and rewrite the answers written on the left. By doing the first edit in the field, the supervisor is sure that if there are any problems such as skipped questions (i.e., when there were no instructions to skip the questions) or contradictory answers. For example, if the family does not have a latrine, it is difficult to understand how it could be 100 yards from the house. The field editing boxes on the right make the field edit more accurate and faster. Additionally, it is easier for the data entry staff when doing data entry.

910. Does your household have a place for hand washing?

X	1. Yes	Office Use Only 910. 1
	2. No	
	3. Don't know	

Response recording

Field edit box

The interviewer simply marks the box of the response given, and the supervisor later writes the code into the field edit box.

Some questions are more complex; having many answers requires a box-like format. In this case, it is not possible to have a field edit box. In this case, the supervisor simply looks over the responses. Below is an example of a table used for responses.

	What crops did you cultivate last winter season?	What was the area planted for each crop? (winter) <i>Write #</i>	Unit of Measure for crop area. <i>Circle Unit</i>	What was the production for each crop? (winter) <i>Write #</i>	Unit of Measure for crop production <i>Circle Unit</i>	How much of your crop production was marketed?	Yield <i>Leave blank</i>	Office Use
RICE (improved variety)	801. 1.Yes 2.No	811.	821. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	831.	841. 1.Kg 2. Mond	851.	861. Kg / HA	801-870 Key in figures From table at left
RICE (traditional variety)	802. 1.Yes 2.No	812.	822. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	832.	842. 1.Kg 2. Mond	852.	862. Kg / HA	

The interviewer will fill in the boxes, much like the example provided below. Although the supervisor does not have to write in these boxes because the data entry staff will enter the numbers directly from the table, the supervisor must verify that the interviewer has filled in the boxes accurately.

	What crops did you cultivate last winter season?	What was the area planted for each crop? (winter) <i>Write #</i>	Unit of Measure for crop area. <i>Circle Unit</i>	What was the production for each crop? (winter) <i>Write #</i>	Unit of Measure for crop production <i>Circle Unit</i>	How much of your crop production was marketed?	Yield <i>Leave blank</i>	Office Use
RICE (improved variety)	801. 1. Yes 2. No	811. 1.6	821. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	831. 60	841. 1. Kg 2. Mond	851. 30	861. Kg / HA	801-870 Key in figures From table at left
RICE (traditional variety)	802. 1. Yes 2. No	812.	822. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	832.	842. 1. Kg 2. Mond	852.	862. Kg / HA	

6.3 Coding and Numbers

6.3.1. Numbering Questions

It is important to number all of the information that is needed. This way it will be easier to identify later. Beginning with the first page of the questionnaire, which contains information such as dates, interview name and village, each question and piece of information that will be entered into the database must be numbered.

It is a good idea to number the questionnaire by sections. The first section might be 100 and up, referring to survey details (e.g., village, date). The second section might be 200 and up, containing information on household characteristics. The third section, 300 and up, might contain information on nutrition. Below is an example of sections 4 and 5 of a questionnaire used in Bangladesh. For a complete example of the questionnaire, see Annex 5.

SECTION 4: WATER / SANITATION:

401 – 402. What is the main source of drinking water for members of your household? during the dry and the rainy season?

401.DRY 402. RAINY

<input type="checkbox"/>	<input type="checkbox"/>	1. Piped water
<input type="checkbox"/>	<input type="checkbox"/>	2. Well
<input type="checkbox"/>	<input type="checkbox"/>	3. Spring / river / stream
<input type="checkbox"/>	<input type="checkbox"/>	4. Pond / lake / dam
<input type="checkbox"/>	<input type="checkbox"/>	5. Other _____

Office Use Only

401.	<input type="checkbox"/>
402.	<input type="checkbox"/>

403 - 404. How far is it to your main water source, during the dry and the rainy season?

403.DRY 404.RAINY

<input type="checkbox"/>	<input type="checkbox"/>	1. Inside the house / dwelling
<input type="checkbox"/>	<input type="checkbox"/>	2. Inside the yard / plot
<input type="checkbox"/>	<input type="checkbox"/>	3. 0 – 5 minutes walk from house / yard / plot
<input type="checkbox"/>	<input type="checkbox"/>	4. 5-15 minutes walk from house / yard / plot
<input type="checkbox"/>	<input type="checkbox"/>	5. More than 15 minutes walk from house / yard / plot

Office Use Only

403.	<input type="checkbox"/>
404.	<input type="checkbox"/>

SECTION 5: DIARRHEA:

501. Has _____ (name of child < 36 months) had more than 3 loose or watery stools in a 24 hour period in the last 2 weeks?

<input type="checkbox"/>	1. Yes
<input type="checkbox"/>	2. No ⇒ go to 601
<input type="checkbox"/>	3. Don't know ⇒ go to 601

Office Use Only

501.	<input type="checkbox"/>
------	--------------------------

6.3.2. Coding

For each response, there must be a code clearly marked on the questionnaire. The code is a numerical value that is programmed into the computer to represent a certain response. The easiest one is ‘1 for yes and 2 for no.’ Others might be more complex. A response to “How do you go to the market?” might be coded as follows: ‘1 for walk, 2 for bus, 3 for drive,’ etc. This saves the interviewer and the data entry staff from having to write ‘drive’ over and over; ‘3’ is much easier to handle. Here is a coding example, with a coding system from 1 to 6:

888. If you used any of these improved farming practices, how did you decide to use them?

<input type="checkbox"/>	1. Another farmer's advice or demonstration	Office Use Only
<input type="checkbox"/>	2. "Model" farmer's advice or demonstration	
X	3. Extension agent's advice or demonstration	
<input type="checkbox"/>	4. Government extension agent's advice or demonstration	
<input type="checkbox"/>	5. Relative or friend's advice or demonstration	
<input type="checkbox"/>	6. Other _____	
		888. <input style="width: 50px; height: 20px;" type="text"/>

After the interviewer has finished the interview and marked the responses of the respondent, the supervisor will review the questionnaire. In addition to making sure that the boxes are all filled in logically, the supervisor will enter the codes to the right under the 'office use only' column as in the example below:

888. If you used any of these improved farming practices, how did you decide to use them?

<input type="checkbox"/>	1. Another farmer's advice or demonstration	Office Use Only
<input type="checkbox"/>	2. "Model" farmer's advice or demonstration	
X	3. Extension agent's advice or demonstration	
<input type="checkbox"/>	4. Government extension agent's advice or demonstration	
<input type="checkbox"/>	5. Relative or friend's advice or demonstration	
<input type="checkbox"/>	6. Other _____	
		888. <input style="width: 50px; height: 20px; text-align: center; border: 1px solid black;" type="text" value="3"/>

6.3.3. Multiple Response Coding

Some questions are more complicated because they allow multiple responses. In this case, there must be a separate question number for each response. Each response will then be coded as '1 for yes and 2 for no.' Each response will have a separate heading in the database. This also means that there will be a field coding box for each question. For multiple response questions, always provide extra instruction, like 'multiple responses possible,' as indicated in the example below:

626 - 630. Can you briefly describe what help is available when there is a flood or cyclone?
INSTRUCTIONS: *Multiple responses possible. Tick each component of the contingency or evacuation plan they mention.*

		Office Use Only 1=yes, 2=no
<input type="checkbox"/>	626. Shelter location	626. <input type="checkbox"/>
<input checked="" type="checkbox"/>	627. Emergency food supplies available	627. <input type="checkbox"/>
<input type="checkbox"/>	628. Non-food emergency supplies available	628. <input type="checkbox"/>
<input checked="" type="checkbox"/>	629. Boats for relocation available	629. <input type="checkbox"/>
<input type="checkbox"/>	630. Emergency medical treatment	630. <input type="checkbox"/>

Below is an example of the coding for multiple response questions:

626 - 630. Can you briefly describe what help is available when there is a flood or cyclone?
INSTRUCTIONS: *Multiple responses possible. Tick each component of the contingency or evacuation plan they mention.*

		Office Use Only 1=yes, 2=no
<input type="checkbox"/>	626. Shelter location	626. <input type="text" value="2"/>
<input checked="" type="checkbox"/>	627. Emergency food supplies available	627. <input type="text" value="1"/>
<input type="checkbox"/>	628. Non-food emergency supplies available	628. <input type="text" value="2"/>
<input checked="" type="checkbox"/>	629. Boats for relocation available	629. <input type="text" value="1"/>
<input type="checkbox"/>	630. Emergency medical treatment	630. <input type="text" value="2"/>

6.4 Question Design

6.4.1. Linked to Indicators

Each question must have a purpose. An evaluation survey is not the time to conduct a needs assessment. Often, the information gathered in an evaluation survey will provide information valuable to assess the needs of the people living in the project area. However, the purpose of this survey is to provide information that is important to project evaluation. Even limited to this goal, the questionnaire can be too long. It is generally not good practice to collect information that is not directly relevant to project evaluation in this survey.

6.4.2. Use Title II Generic Indicators Where Possible

The questionnaire will have one or more questions to gather information on most of the project's impact evaluation indicators; information on some indicators will come from other sources. It is essential to design questions that will clearly and easily gather information related to these indicators. For Title II projects, many indicators are generic (i.e., used in all projects), so it is important to look at past questionnaires to see how they worded their questions. Below are some indicators and possible questions that can collect relevant information. Each questionnaire is different and should be designed within the specific cultural, economic and geographical context.

For example, seasonality can affect the responses. Conditions for water collection, disease and sanitation are very different during the rainy and dry seasons. For a Summary of Title II Generic Indicators, see Annex 2.

6.4.3. Simple, Clear Language

Questions must be as clear and as simple as possible. Never ask for two pieces of information in one question. Always use simple words for which everyone has the same definition. Also, simple words will be easier to translate. One of the most important things to look for when the survey is field-tested is whether or not people understand the question easily or need to ask for further clarification. If respondents need to ask for clarification, then the question should be re-written.

Indicator	A Sample Question
Health	
% decrease incidence of children < 36 months with diarrhea in last 2 weeks	<ul style="list-style-type: none"> • Has _____ (<i>name of child < 36 months</i>) had more than 3 loose or watery stools in a 24-hour period in the last 2 weeks?
% infants continuously fed during diarrhea	<ul style="list-style-type: none"> • During the last episode of diarrhea, did you give _____ any of the following? <ul style="list-style-type: none"> - Breastmilk - Other liquids - Other mushy (semi-solid) or solid foods • During _____'s diarrhea, did you offer more food/breastmilk/liquid in total, less in total, or about the same?
Nutrition	
Increased number of different food or food groups consumed in targeted households	<ul style="list-style-type: none"> • Which of the following foods did your family consume yesterday? <ul style="list-style-type: none"> - Cereals - Roots tubers - Pulses, legumes - Milk and milk products - Eggs - Meat - Fish and seafood - Oil/fats - Sugar/honey - Fruits - Vegetables • During the previous 24 hour period, did you or anyone in your household consume <ul style="list-style-type: none"> - Any food before a morning meal? - A morning meal? - Any food between morning and midday meals? - A midday meal? - Any food between midday and evening meals? - An evening meal? - Any food after the evening meal?

Water and Sanitation	
% increase household usage of safe water sources in target area	<ul style="list-style-type: none"> • What is the main source of drinking water for members of your household, • During the dry and the rainy season? • How far is it to your main water source, during the dry and the rainy season? • Who maintains the water source, during the dry and the rainy season? • How many other households use this water source, during the dry and the rainy season?
% increase of targeted population with proper hand washing behavior	<ul style="list-style-type: none"> • When do you wash your hands? • Does your household have a place for hand washing? • Can you show me how you wash your hands? • Can I see where you wash your hands?
Agricultural Productivity	
Months of household grain provision	<ul style="list-style-type: none"> • What staple crops does your family consume? (this question is unnecessary if the answer is obvious). • Do you still have food stocks remaining from last year's season? • If yes, how many more weeks do you expect the stock to last? • If no, when did the stocks run out?

For more information on standard survey questionnaires or survey questions for standard indicators, the following websites might be useful:

Food and Nutrition Technical Assistance: www.fantaproject.org. The FANTA project publishes an informative series of indicator guides that help to design surveys. There are currently the following indicator guides on FANTA's website:

- Agricultural Productivity Indicators Measurement Guide
- Anthropometric Indicators Measurement Guide
- Food Security Indicators and Framework for Use in the Monitoring and Evaluation of Food Aid Programs
- Infant Child Feeding Measurement Guide
- Measuring Household Food Consumption: A Technical Guide
- Sampling Guide
- Water and Sanitation Indicators Measurement Guide

The **Knowledge, Practice and Coverage (KPC) Survey** is a standard questionnaire designed to measure health knowledge, practice and coverage relating to child survival. Part of this entire questionnaire may be useful to a project. More information on the KPC and copies of the questionnaire are available at www.childsurvival.com/kpc2000/kpc2000.cfm.

The **Demographic and Health Survey (DHS)** is another standard survey that might provide some useful examples. The DHS website can be reached at www.measuredhs.com.

7. PREPARING FOR DATA COLLECTION¹¹

7.1. Logistical Arrangements

7.1.2. Contact Local Authorities

It is always important to contact local authorities in advance for consent to carry out the survey. Experience has shown that when people are notified of the survey in advance, interviewers usually have few problems in the field. In addition to notifying the local authorities in advance, interview teams should first visit the local authorities (i.e., government, traditional authorities) upon arrival in the area. The team should be introduced and an explanation should be provided to the local authorities on the purpose of the visit and what the survey process entails.

7.1.3. Transportation and Accommodation

Most program areas are often large and public transportation is usually difficult, slow and unreliable. It is important to organize efficient and reliable transportation. As a general rule, one vehicle per survey team for the entire length of field interviews is required. Drivers who are familiar with the area are a valuable asset to the team. Vehicles should accommodate the appropriate number of people on the team and be able to navigate the often poor quality roads in the project area. Logistics also include organizing accommodations for the survey teams.

7.1.4. Get Local Maps

Maps are helpful during the survey for several reasons. Local maps make it easier to find a small and remote village that might have been chosen as one of the clusters. Village maps make it possible to create the segments that will be needed for the two-stage cluster selection method. Regional maps are often available from the Census Bureau or another government agency. Village maps must indicate each household and are often difficult to find. If no village map is available, a team member should be dispatched in advance to sit with a local leader to draw the village map. It is important to include households and village landmarks such as rivers, churches or mosques, fields and large trees. Copies of all of these maps should be made in advance for survey team members to take to the field. If possible, the survey research team should include someone from the area where the survey will take place. This will make it easier to find places and might facilitate a good working relationship with the community being surveyed.

7.2. Translating the Questionnaire

7.2.1. Local Language Translation

Translating the questionnaire is a crucial part of the survey research process. It is important that the questionnaire that will be used in the field is written in the local language.

¹¹ Adapted from World Vision Canada “Design and Implementation of Nutrition Surveys, Excerpt from the MICAH Guide.” Reference: UNICEF “Monitoring Progress Toward the Goals of the World Summit for Children, A Practical Handbook for Multiple Indicator Surveys.” 1995. (Chapter 5).

7.2.2. Double Blind Translation

Translating the questionnaire into the local language makes sure that everyone is asking the same questions. However, it is important to be sure that the translated questionnaire is really saying what the surveyor wants it to say. Often, the survey coordinator does not speak the local language, and in this case it is especially important to be sure that the translated questionnaire does not stray even slightly from the original intended meaning. For example, ‘emergency supplies’ can mean many things, and it is important to be sure that it is translated to have the intended meaning.

To check for translation accuracy, use ‘double blind translation.’ Using this technique, the survey coordinator will give the English version of the survey to a translator who will translate the survey into the local language. When the translator is done writing the questionnaire in the local language, it is a good idea to look it over with a local language speaker to see if there are any notable mistakes. The next step is to take the local language version to a different translator who will then translate the questionnaire back into English. Then compare this second translation into English to the first English questionnaire to see if they still have the same meaning. If the meaning of certain questions has changed, it is important to confirm whether the initial translation is correct.

Double Blind Translation: Translate the questionnaire into the local language and then back to English to check for accuracy

If there are several languages spoken in the survey area and there is no common language spoken by everyone, the survey should be translated into all of the languages spoken. In extreme circumstances, some interviewers may have to translate on the spot. This is of course much less desirable and accurate.

7.3. Pre-testing the Questionnaire

Pre-testing the questionnaire is the next important step. Before beginning the actual evaluation survey, the questionnaire should be tested in *at least 20 households*.

During the pretest, it is likely that a number of problems and glitches emerge. A pretest allows the team time to fix these problems before the actual survey begins. It enables the team to further check the accuracy of the translation, and investigate whether or not the respondents all have the same understanding of the questions. A good technique to use during the pre-test is to use the interview team supervisors as pretest interviewers. This enables the supervisors to become even more familiar with the survey before the training and actual survey begins.

Some things to look for during the pre-test include the following:

- A respondent that does not understand the question;
- A respondent that gives a response that does not make sense in the context of the question;
- Many respondents that give an answer to a question that is not listed among responses on the questionnaire; and
- The questionnaire taking too long.

Pretest the questionnaire in an area that is in the program area, but an area that has not been chosen as part of the sample. The people or community interviewed in the pre-test cannot be interviewed again for the actual survey.

Test the questionnaire early so that there is enough time to make needed changes.

7.4. While the Survey is in Process

7.4.1. Communication

The survey coordinator should be in contact with the survey teams in the field. Especially in the first few days of the survey, many questions or unforeseen problems surface, and the survey coordinator must be on hand to answer questions or aid teams in solving the problems they encounter. Ideally, every team would have access to a telephone or cell phone. If this is not possible, each team should have a radio it can use to contact the survey coordinator. During the first week or first two weeks of the survey, the survey coordinator should be in the field, visiting all survey teams to be sure everything is running smoothly. If possible, request the help of the technical resource people to advise the interview team during the first few days of the survey.

The survey coordinator or a technical resource person should try to visit each team during the first two days of the survey.

7.4.2. Returning Questionnaires to Central Office

Completed questionnaires should be collected and checked by the supervisor at the end of each day in the field. The supervisor should put the completed questionnaires in a large sealed envelope and mark the date, team and cluster number on the outside of the package. Instructions should be clear for the delivery of questionnaires to the selected office. Make these arrangements in advance and set out clear guidelines for questionnaire delivery to the central office.

7.4.3. Interviewer Observation

The supervisor of each team should observe around 10 percent of the interviews each day, with a goal of observing each interviewer every few days. The purpose of these observations is to help the team improve its interviewing skills and look for mistakes that could bias the results of the survey.

8. TRAINING INTERVIEWERS AND SUPERVISORS

Training for the interviewers and supervisors should be scheduled just before the beginning of the survey. The training should last three to four days. The last day of the training should be in the field where interviewers can practice interviewing.

Interviewer training should include the following elements:

- Purpose of the survey: Explain the purpose and importance of the survey.
- Survey Methods: provide an introduction to survey methods.
- Logistics: Discuss how the survey will happen, including schedules and rules to follow to ensure that the survey runs smoothly.
- Respondents: Explain village and household selection and who to interview in each household.
- Interviewing: Discuss building a good relationship with the respondent and how to conduct a good interview in general. It is important to explain the process of obtaining verbal consent from the respondents before beginning an interview.
- Questionnaire Use: Review each questions and define any terms that are unclear.
- Interview Practice: Have the interviewers practice interviewing each other before they practice in the field.
- Field Practice: Interview practice in the field. Each interviewer should conduct three interviews in the field. Supervisors should monitor interviewers as they conduct their interviews.
- Practice Discussion: After the field interview practice sessions, it is important to gather as a group to discuss the experience. Do the interviewers feel comfortable? Did they encounter any problems with the questionnaire? Are there any questions?
- Review: Finally, it is important to review how to use the questionnaire, and how the survey will happen. Go over important logistical arrangements again.

The following is an example of an interviewer's manual:

EXAMPLE FROM BANGLADESH

Food Security Enhancement Initiative

Baseline Survey Interviewer and Supervisor's Manual

TABLE OF CONTENTS

- 1. Purpose of the survey**
 - Purpose of the survey
 - Importance of the data that is collected
- 2. How the survey will happen**
 - Logistics overview
 - Survey schedule
 - Everyday routine
 - Rules and regulations
 - Questions
- 3. Who to interview**
 - What villages will be selected
 - What households to interview in each village
 - Who to interview in each household
 - Questions
- 4. How to conduct an interview**
 - Building a good relationship with the respondent
 - Verbal consent
 - Tips in conducting an interview
 - Questions
- 5. How to use the questionnaire**
 - Review of each question
 - Definition of terms
 - Practice interviewing each other
 - Practice interviewing in the community
 - Questions
- 6. Review of practice / questionnaire**
 - Questions
- 7. Review of how the survey will happen**
 - Questions

INTRODUCTION

PURPOSE OF THE SURVEY:

Over the next few weeks you will be working as an interviewer, and you will be collecting different kinds of information from people who live in 13 districts across Bangladesh. You will be asking questions about farming practices, about drinking water, about hygiene, about children's health, about disaster preparedness and other questions.

The information that is gathered will help the project staff to understand the situation in the communities where we work. After 2 years another survey will be done, and we will be able to see if there have been any improvements, which may have happened because of the activities we have been doing through our programs.

IMPORTANCE OF THE DATA THAT IS COLLECTED:

This is not a census. We are not collecting information that can be used for taxes. The information will not be used in a way that will harm anyone. The information that is collected is very important in helping us to understand the progress we are making, and to improve the services we provide to the communities.

The United States government provides all the money for doing this food security program. They ask many questions as to how we use the money. Vehicles are expensive, salaries are expensive, training is expensive. Do we really need to do all of this, or are we wasting the money that is given to us?

Our donor has asked us to do this survey. The donor wants to know what the current situation is in the communities, what the needs are, and what changes may have happened because of our program.

What you will be doing the next few weeks will be hard work, but it is very important. You have been chosen to assist in this important exercise.

HOW THE SURVEY WILL HAPPEN

LOGISTICS OVERVIEW:

40 villages in 16 Upa-zillas will be surveyed. These villages will be in program areas where the NGO is currently working, or where there are plans to work in the future.

You will be given a list of the 40 selected villages, and will be given assignments every day, regarding which village you are supposed to survey.

You will interview 42 households in each of the villages for a total of 1680 households.

There will be 4 survey teams, with 7 interviewers and 1 supervisor on each team. That means that each interviewer will be required to do 6 interviews each day to complete the 42 households in each village.

The supervisor will:

1. Give you your daily assignments;
2. Assist you in selecting which households to interview;
3. Help solve any problems;
4. sometimes observe how you do the interviews; and
5. Check each questionnaire at the end of the day.

SURVEY SCHEDULE:

We want to try to accomplish this work in three weeks time. If each of the 4 teams manages to do one village per day, it will only take 10 days to collect all the information we need. We have budgeted in extra time for travel. We will be on the road or in the field for the entire three weeks.

EVERYDAY ROUTINE:

Report to the program area office by 7:30 am every day to receive village assignments for the day, and to prepare your materials.

Everyone should be ready to leave the office for the field by 8:00 am, including the supervisors.

You must be responsible for taking the following materials with you every day:

1. 8 blank questionnaires (6 questionnaires will have the first page completed by your supervisor and there will be 2 extras)
2. Your interviewer's manual
3. Clipboard
4. 2 pencils
5. Eraser
6. Pencil sharpener
7. Water bottle

Each team will be taken to their assigned village, with arrangements made to be picked up again in the afternoon. We will try to be back to the program area where we are staying or the Dhaka office no later than 5:30 p.m. each day.

RULES AND REGULATIONS:

What rules do you think we need to have, so that the survey will be a success?

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

WHAT QUESTIONS DO YOU HAVE ON HOW THE SURVEY WILL HAPPEN?

WHOM TO INTERVIEW

WHAT VILLAGES WILL BE SELECTED:

If you wanted to find out what is the main source of drinking water in Bangladesh, what would you do? You could go to every household in Bangladesh and ask that question, but that would take a very long time to gather all that information.

Instead of going to every household, all of the Upa-zillas in which the NGO is planning to implement the food security program were listed, then all the unions, and finally all of the villages. From that list, 40 villages were randomly selected to survey. These villages have been very carefully selected, not because a certain Matobour (traditional leader) lives in that village, and not because we know this village has a high number of tube wells, but because we picked them randomly. Each village had an equal chance of being selected.

The information we get from these 40 villages will represent what is happening in all of the Upa-zillas where the NGO is implementing the food security program. If we find out that 50% of the households drink water from tube wells in these 40 villages, then we can guess or assume that about 50% of the households in all these upa-zillas are doing the same.

Since these 40 villages have been carefully selected it is important that we only go to those villages. If for some reason, one village is inaccessible, then your supervisor will choose another village. Usually he / she would choose the one that is closest to the one that was first chosen.

Each morning when you report for duty, you will be told which village you will be going to that day.

When you arrive in a village, it is important to take time to meet the union parishad chairman or the village matbar (local leaders). Explain to them why you are there and the purpose of the survey. They may have been informed beforehand that their village might be chosen for the survey. The union parishad chairman may be willing to accompany you as you do the survey, and this can be very useful.

Sometimes the matbar or community leader will want you to go to his house first. It is **very important** that you explain to him that there is a special way we choose which house to go to first, so that every house has an equal chance of being chosen. His house may or may not be chosen.

WHAT HOUSEHOLDS TO INTERVIEW IN EACH VILLAGE:

42 households will be interviewed in each village. If the village is very small, and there are not 42 households, you should interview as many households as possible, then proceed to the next village to finish the 42 questionnaires assigned to your team.

7 interviewers will be working on each team. Each team will be assigned a segment of the village or town that has been previously chosen. Between the seven members of your team, you will interview every household in that segment.

1. Look at the village (or town) map. Your supervisor will have already divided the area into equal segments and will have numbered the segments.
2. Randomly select the segment of the town or village that your team will interview. One person on the team will put the numbered cards (up to the number of segments) into his or her hat. Another team member will draw a card. The number on that card indicates the segment where your team will conduct your interviews.
3. Once you have determined in which segment you will be conducting your interviews, first verify boundaries of the segment. Can you see where the segment boundaries are?
4. Then, you and your supervisor must divide the segment between the seven members of the team.
5. Once you know which houses to interview in the segment, walk to this area and begin interviewing. Normally, you will have six households to interview, but sometimes you will have more. It is important that the entire team keeps interviewing until all houses in the segment have been interviewed. Be sure to mark the houses you have interviewed on the map so that your team can keep track of the houses interviewed.
6. If there is no adult woman at home, skip that household and go on to another household in the segment. Return later in the day to interview an adult woman at this household.

When your team of 7 interviewers have finished interviewing 42 households (6 per interviewer), you should meet back at a central point that was agreed on, and the supervisor will check all the questionnaires before departing. If any mistakes are found or missing information, you may need to return to the household to get additional information.

Remember, it is VERY IMPORTANT that your questionnaire is filled out completely and correctly.

WHO TO INTERVIEW IN EACH HOUSEHOLD:

When you arrive at a household, introduce yourself and explain what you are doing. Ask for their permission before you proceed. (There will be more information in the next section with specific tips in conducting an interview.)

Who should answer the questions?

1. You will need to speak to an adult woman in the household, preferably the mother of the household. If there is more than one mother, then ask to speak with the mother of the youngest children in the household.
2. The on-farm agriculturist of the household (usually the man) should answer questions in section 7b and 8. It might be difficult to find the man of the household home during the day. If the on farm agriculturist is not home at the time of the interview, send a child to find him in the fields or in the market. It is useful to ask about his whereabouts at the beginning of the interview so someone can find him while you are interviewing the mother of the household. If it is impossible to locate the man at that time, return to the house during lunch time to complete the interview.
3. Section 9 is the demonstration section of the questionnaire. The woman interviewed in the first six and a half sections should demonstrate hand washing and show you her latrine and hand washing area.

WHAT QUESTIONS DO YOU HAVE ON WHOM TO INTERVIEW?

HOW TO CONDUCT AN INTERVIEW

ROLE PLAY

BUILDING A GOOD RELATIONSHIP WITH THE RESPONDENT:

Normally the interviewer and the respondent are strangers to each other, and one of the main tasks of the interviewer is to build a good relationship. The respondent's first impression of you will influence his / her participation in the survey. Be sure your appearance is neat, and your manner is friendly as you introduce yourself.

1. Make a good first impression. Do your best to make him/her feel comfortable. Begin your introduction with a smile.

A good introduction might be: "My name is _____. I am an extension agent who works with [the name of the NGO]. We are conducting a survey in 13 districts asking households about their agricultural practices, where they get their drinking water and many other things. I would like to ask you some questions.

2. Always have a positive approach. Don't apologize by saying, "Are you too busy?" or "Would you mind answering some questions?" If you say this, many people may refuse before you even start. Tell the respondent "I would like to ask you some questions."

3. Stress confidentiality of answers. Explain that the information will remain confidential, that their name will not be mentioned, and that the information is not used for government purposes. Never mention other interviews or show completed questionnaires to other interviewers or supervisors in the presence of the respondent.

4. Interview the respondent alone. If a third person is present during an interview, the respondent may not answer honestly. It is very important that the interview is conducted privately and that the respondent answers all questions. If other people are present as you begin an interview, explain to the respondent that some of the questions are private, and ask where is the best place where you can speak with them alone.

VERBAL CONSENT:

It is important that you obtain permission from the respondent before proceeding with the survey.

You can say something like this:

- I am working with [name of NGO], and in an effort to get more information about life in this district, we are conducting a survey of the households in 16 Upa-zillas in Bangladesh. Your household has been selected in this Upa-zilla. I would like to ask you some questions related to your agricultural practices and about your water and health.

- The information you provide will help us to understand how people live in this Upazilla, and will be useful in planning future programs.
- The local authorities have given us permission to do this survey, but your participation is voluntary and you can choose not to participate.
- The information you give will be confidential. The information will be used to prepare general reports, but will not include your name. There will be no way to identify that you are the one who gave this information.

If you have any questions about the survey, you can ask me, or someone from the program in the District in which you are working.

TIPS IN CONDUCTING AN INTERVIEW:

1. Be neutral throughout the interview. Most people are polite, and will tend to give answers they think you want to hear. It is very important that you remain neutral as you ask the questions. Do not use the expression on your face or the tone of your voice allow the respondent to think he or she has given the “right” or “wrong” answer to the question. **Remember, there are no “right” or “wrong” answers to these questions.**

A respondent may ask you questions during the interview, and get you side tracked from the questionnaire. Be polite, but tell them you are interested in their opinions. Otherwise it can take a long time to finish the questionnaire.

The questions are all intended to be neutral, and remember that one answer is not necessarily better than another answer.

2. Never suggest an answer to the respondent. If a respondent’s answer is not one of those listed, do not encourage her by saying something like, “I suppose you mean _____.” If you say this, usually he / she will agree with your interpretation of the answer, even if that was not meant. Let him / her come up with the answer. Never read out the list of answers to the respondent unless you are instructed to do so in that question.

If the respondent gives an answer that is not clear, try to probe for an answer in a neutral way such as:

“Can you explain a little more?”

“There is no hurry. Take a moment to think about it.”

3. Do not change the wording or order of the questions. The wording of the questions and their order in the questionnaire must not be changed. If the respondent does not understand the question, you should repeat the question slowly and clearly.

4. Speak with hesitant respondents tactfully. Sometimes the respondent may say “I don’t know”, or give an inappropriate answer, or may act tired or bored, or choose not to answer the question. If so, try to get them interested in the conversation again.

If the respondent gives very long answers, do not be rude or interrupt. Listen to the answers, and then ask them to focus the answer on the original question again.

If the respondent does not want to answer a specific question, try to overcome this by explaining that the same questions are being asked to many people in the district. If he/she still chooses not to answer, write REFUSED next to the question and continue on as if nothing has happened. Remember not to push too much for an answer.

5. Do not hurry the interview.

Ask the questions slowly in order to make sure the respondent understands. After you ask a question, give the respondent time to think. If he/she feels rushed, they may respond with “I don’t know” or give a different answer.

WHAT QUESTIONS DO YOU HAVE ON HOW TO CONDUCT AN INTERVIEW?

SUPERVISOR'S RESPONSIBILITIES

SUPERVISOR CHECKLIST:

- Defines correct cluster location and boundaries, including those clusters that include two villages.
- Divides the cluster among the seven interviewers on his / her team.
- Assist interviewers in choosing which household they should interview first.
- Spot checks or monitors 5-10% of the interviews performed to determine accuracy.
- Audits all completed questionnaires before the interviewer leaves the cluster location, filling in the boxes on the right hand side of the questionnaire.
- Collects all 42 questionnaires from each cluster and seals them inside an envelope marked with the village name, cluster number, date and his / her signature.
- Provides on site assistance to interviewers regarding all facets of interviewing; answers survey related questions and registers unusual events or situations on the pertinent interview form.
- Actively participates during interviewer training sessions.

INTERVIEWER CHECKLIST:

- Arrives on time.
- Is dressed appropriately for work.
- Uses the correct procedure for selecting respondents.
- Reminds respondents that participation is voluntary and that all responses will be confidential.
- Asks questions in a conversational manner.
- Records responses fully and legibly.
- Questionnaires are completed and accurate, with any mistakes corrected before leaving the village.

DAILY RESPONSIBILITIES:

Every morning, before departure:

1. Give your team members their daily assignments.
2. Complete the front page on 42 questionnaires, assigning them to individual interviewers.
3. Write the cluster # and household # on each page of the questionnaire.
4. Check for missing pages in each questionnaire.
5. Give 6 of the questionnaires to each interviewer.
6. Give an additional 2 blank questionnaires to each interviewer in case there are any missing pages.
7. Take extra questionnaires, extra pencils and extra random number tables with you.

During the day, at the village:

1. Inform the chief or local authority what you will be doing and obtain their permission.
2. Assist the interviewers in choosing which direction they begin walking, and which households to interview first.
3. Observe some interviewers each day. Observe half of your team doing at least one interview each day.
4. Assist with any problem solving during the day.

At the end of the day, before leaving the village:

1. Audit every questionnaire, filling in the boxes on the right hand side of the questionnaire. If there is missing or contradicting information, clarify it with the interviewer and send them back to the household to complete the questionnaire if necessary.
2. Put the 42 completed questionnaires in an envelope, making sure it is marked with the name of the village, the cluster number, the date, and your signature.

Back at the office:

1. Give the sealed envelope with the 42 completed questionnaires to the survey coordinator at the end of each day.
2. Report any problems encountered during the day to the survey coordinator.

PROBLEM SOLVING:

What would you do in the following situations?

1. Only the grandmother is at home with the young children. Should the interviewer proceed with the interview?
2. The mother is home with 2 young children. But her husband who is responsible for on farm agriculture is not home. What do you do?
3. The selected village cannot be reached because there have been heavy rains and you cannot cross the river. What will you do?
4. The selected village is very small and only has 16 households in the village. What will you do?
5. Separate households are difficult to identify, for example, 3 families are living in the same house and eating together. What will you do?
6. No one is at home. What will you do?
7. The resident of the household refuses to be interviewed. What should you do?

9. PRESENTING FINDINGS¹²

9.1. Survey Report Objectives

Many times survey reports are written to fulfill a requirement to the donors to provide evidence that the program is meeting its objectives. However, the survey report should also provide information that is valuable to other stakeholders that often have different information needs. Before writing a survey report, it is important to identify the audience or audiences. For example, communities might be more interested in data from their specific region, whereas government ministries will usually want aggregated data for the entire country. Some examples of the groups that might be interested in the survey include the following:

- Communities
- Government or local authorities
- Program management
- Program partners
- Private donors
- Government donors
- Other NGOs
- Universities/research institutions

9.2. Clear Presentation of Data

9.2.1. Summary

A survey report should always begin with a summary of the major findings. The summary should be short and to the point. Inclusion of this information at the beginning of the report will let the reader know what to look for in the following pages. For those who do not have time to read the entire report, they will read only key findings and facts in this paragraph.

9.2.2. Simple Language

Avoid complex technical language when writing the report. Although different groups are often interested in different types of information, all groups need to see data that is clearly presented and easy to understand.

Clear and Concise: More is not always better

9.2.3. Tables and Figures

- It is much easier to understand what the data is saying when it is presented outside of the text in the form of a table or figure (i.e., graph). However, tables and figures don't help the reader at all unless they are well done. Table information is presented with

Include **at least one table or graph** for each impact indicator.

¹² Adapted from a presentation by Dorothy Scheffel at World Vision Ethiopia, 2001.

numbers whereas figures information is presented visually. Often visual information is easier to understand. See examples on the following pages.

- Tables and figures must be self-explanatory. The reader should not need to look for the explanation in the text.
- Each table or figure needs a header that includes the number of the table or figure, followed by the title. The table or figure number can then be referred to in the text. Tables and figures should be numbered separately in sequence through the report.
- The title of a table or figure should summarize briefly the information in the table or figure.
- Each column in a table should have a header.
- Use the same style for tables throughout the document.
- Precise units of measurement should be used whenever possible (e.g., ‘percentage,’ ‘months’).
- If a table or figure is taken from another publication, the source must be identified.
- Whenever percentages are used in tables, the raw figures should be included. This assists the reader in checking the validity of interpretation. See the example below:

	Boys (n=4)		Girls (n=40)		Total (n=44)	
	(n)	(%)	(n)	(%)	(n)	(%)
Visible Goiter	2	50	10	25	27.3	

9.2.4. Confidence Intervals

Precision, margin of error, standard error and confidence interval are all terms that are used interchangeably. To calculate sample size, the expected prevalence is estimated at the desired precision, or the confidence interval.

Using **confidence intervals** in the data presentation will add credibility to the survey report.

Generally, a 95 percent confidence interval is used, meaning an expected error of 5 percent, or there is reasonable confidence that 95 percent of the population will fall between the confidence interval.

Confidence intervals are used because they allow the findings to reflect the fact that sample data will vary slightly from the realities in the total population. The use of a confidence interval allows the reader to understand the expected variability between the findings with the sample and the situation existing in the larger population. Of course, smaller confidence intervals are desirable because they are more precise. However, the smaller the confidence interval, the larger the sample size needed in the survey. The need for precision is balanced against the costs involved in doing a very extensive survey.

Confidence Interval Calculation

Confidence intervals can be calculated three ways:

1. By hand, using this formula:

$$95 \text{ percent confidence interval} = \pm z \sqrt{\frac{(p)(q)(deff)}{n}}$$

Where

n = sample size

z = parameter related to the error risk, equals 1.96 for an error risk of 5 percent

p = expected prevalence of the indicators in the population expressed as a fraction of 1
q = 1-p), expected proportion of the population not showing the indicator (e.g., not malnourished, no access to clean water)

deff = the expected design effect, 2 is commonly used for cluster surveys

An example: If 20 percent of the children are estimated to be malnourished in the entire program area population and the sample size is 600, what is the confidence interval?

$$95 \text{ percent confidence interval} = \pm 1.96 \sqrt{\frac{(0.20)(0.80)(2)}{600}}$$

$$95 \text{ percent confidence interval} = \pm 4.5$$

In other words, the malnutrition rate in the entire program area population is 20 percent with a 95 percent confidence interval of 15.5 to 24.5 percent.

2. With EPI-Info, using this command:

Freq variable / c

One will not always be able to calculate the confidence intervals using EPI-Info, depending on how the frequencies are run.

3. Using SPSS: In SPSS, it is easier to calculate the standard error (SE). The SE x 2 equals the confidence interval. Instead of giving the range of values, it just gives a value that can be added or subtracted from the data value to find the range. To find the standard error in SPSS, follow the following commands:

1. Click on 'analyze'
2. Click on 'descriptive statistics'
3. Click on 'frequencies'
4. Click on 'statistics'
5. Click on 'SE Mean'
6. Click on 'continue'
7. Click on 'OK'

9.3. Recommended Survey Report Outline

1. COVER PAGE
2. TABLE OF CONTENTS
3. LIST OF FIGURES
4. LIST OF TABLES
5. ABBREVIATIONS
6. GLOSSARY, if needed

7. **SUMMARY.** The first page should include a short summary, covering the objectives of the survey, the methodology used, the main results and recommendations.

8. **INTRODUCTION/BACKGROUND.** The context in which the survey was carried out should be described in this section. It is important to include a description of the population surveyed, when they were surveyed and in what area they were surveyed. Other relevant background information should be included here.

9. **SURVEY OBJECTIVES.** Explain what was measured in the evaluation survey, in which population and why.

10. **METHODOLOGY.**

- **SURVEY AREA.** Describe the area where the survey was conducted.
- **QUESTIONNAIRE.** Explain the type of questionnaire and how it was designed.
- **DETERMINATION OF THE SAMPLE SIZE.** Describe in detail how the sample size was chosen.
- **DATA COLLECTION.** This section should include who collected the data and the schedule of data collection.
- **DATA ANALYSIS.** Explain how the data was analyzed (e.g., using frequencies) and using which statistical analysis program.
- **LIMITATIONS.** Discuss the limitations of the survey. Be sure to include limitations due to *selection bias* and *measurement bias*.

11. **RESULTS.** Clearly present the results. It is a good idea to link the results to the indicators that they are intended to measure. Generally, there will be one section for each section of the survey, usually beginning with household characteristics. For example, 1) Household characteristics, 2) Agriculture, 3) Water/Sanitation, etc.

12. **INTERPRETATION OF RESULTS, DISCUSSION.** This discussion puts the results back into the context. Comparison can be made with previous surveys. Tentative explanations may be provided.

13. **RECOMMENDATIONS.** A report should always include practical recommendations. Stakeholders should agree on what recommendations will be included.

14. APPENDICES. Include any maps, the sampling frame and questionnaire.

9.4. When and Where to Present Findings

Frequently, evaluation surveys are conducted as a donor requirement. However, it is important to present findings to the range of program stakeholders, including collaborating NGOs, government partners and other concerned groups. Most importantly, it is crucial to share the findings with the population surveyed. An added value to this is that the local population can help check the validity of the findings. The presentation of findings to the local population can also serve as a participatory exercise for future program planning.

ANNEX 1: HAITI INDICATOR TRACKING TABLE

Indicator	Base-line	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs Target	FY 05 Target	FY 05 Achieved	FY 05 % Achieved vs Target	FY 06 Target	FY 06 Achieved	FY 06 % Achieved vs Target	LOA Target	LOA Achieved
SO 1, IR 1.1: IMPROVED ACCESS AND UTILIZATION OF HEALTH SERVICES OF TARGETED HOUSEHOLDS																		
IMPACT:																		
% children (12-23 months) fully immunized	30%	NA			NA			50%			NA			80%			80%	
% children < 36 months with diarrhea in last 2 weeks	27% < 59 months	NA			NA			20%			NA			15%			15%	
IMPACT (Outcome Level):																		
% households with access to health facilities	TBD	NA			NA			+ 5%			NA			+ 10%			+ 10%	
% households with access to potable water	31%	NA			NA			35%			NA			40%			40%	
MONITORING:																		
# health facilities equipped	0	0			2			1			1			0			4	
# health facilities constructed/rep aired	0	1			1			0			0			0			2	
# water sources rehabilitated	0	1			1			1			1			1			5	
# community health workers trained	0	230			230			230			230			230			230	

Indicator	Base-line	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs Target	FY 05 Target	FY 05 Achieved	FY 05 % Achieved vs Target	FY 06 Target	FY 06 Achieved	FY 06 % Achieved vs Target	LOA Target	LOA Achieved
# women receiving health education	0	11,500			11,500			11,500			11,500			11,500			11,500	

SO 1, IR 1.2: Improved health and nutritional status of targeted children, women and vulnerable groups

IMPACT:

% underweight children 6–59 months	28%	NA			NA			25%			NA			20%			20%	
% stunted children 6–59 months	32%	NA			NA			30%			NA			25%			25%	

IMPACT (OUTCOME LEVEL):

% households with improved diet diversity	TBD	NA			NA			+5%			NA			+10%			+10%	
Average number of meals per day per household	2	NA			NA			3			NA			3			3	

MONITORING:

# eligible children in nutrition program	0	29,700			35,100			44,250			45,000			36,000			190,050	
# pregnant /lactating women in nutrition program	0	8,000			10,500			13,000			15,500			15,800			62,000	

Indicator	Base-line	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs Target	FY 05 Target	FY 05 Achieved	FY 05 % Achieved vs Target	FY 06 Target	FY 06 Achieved	FY 06 % Achieved vs Target	LOA Target	LOA Achieved
SO 2, IR 2.1: Enhanced adoption of improved genetic and production technologies																		
IMPACT:																		
% of targeted households with increased targeted assets	TBD	NA			NA			+5			NA			+10			+10	
Average production of targeted crops	TBD	NA			+10%			+40%			+50%			+60%			+60%	
IMPACT (OUTCOME LEVEL):																		
% targeted farmers using improved technologies	TBD	NA			NA			+25			NA			+45			+45	
Average months (after harvest) of hh food supplies	3	4			5			5			6			6			6	
% targeted hh producing charcoal	TBD	NA			NA			-5			NA			-10			-10	
MONITORING:																		
# on-farm trials established	0	144			144			144			144			NA			576	
# farmers trained in the use of improved technologies	0	1,080			1,080			1,080			1,080			1,080			5,400	
Average quantity of improved seeds produced and distributed	990 kg* (M: 720 P: 144 S: 72)	3015 kg (M: 2070 P: 414 S: 342)			3015kg			3015kg			3015kg			NA			13.05 Mt	

Indicator	Base-line	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs Target	FY 05 Target	FY 05 Achieved	FY 05 % Achieved vs Target	FY 06 Target	FY 06 Achieved	FY 06 % Achieved vs Target	LOA Target	LOA Achieved
SO 2, IR 2.2: Diversified household farm production for increased household assets																		
IMPACT:																		
% of households with increased targeted assets	TBD	NA			NA			+5			NA			+10			+10	
IMPACT (OUTCOME LEVEL):																		
% targeted farmers producing targeted vegetable crops for market	TBD	NA			+2			+5			+7			+10			+10	
Average area planted with plantains (110 hh/year)	TBD	+5.5 ha			+27.5 ha													
MONITORING:																		
# farmers trained in bio-intensive market gardening	0	500			+55			+55			+55			+55			720	
# plantain suckers planted and survived	0	13,750			13,750			13,750			13,750			13,750			68,750	
SO 2, IR 2.3: Productive infrastructures rehabilitated																		
IMPACT:																		
Average production of targeted commercial fruits	Avocad TBD Mango TBD	NA			NA			+5%			NA			+10%			+10%	

Annex 1: Haiti Indicator Tracking Table

Indicator	Base-line	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs Target	FY 05 Target	FY 05 Achieved	FY 05 % Achieved vs Target	FY 06 Target	FY 06 Achieved	FY 06 % Achieved vs Target	LOA Target	LOA Achieved
IMPACT (OUTCOME LEVEL):																		
Average area of land planted with fruit trees	TBD	NA			32			32			16			16			96	
Average area of watershed planted with fuelwood/forest trees	TBD	NA			16			16			8			8			48	
% farmers using natural resource management practices	TBD	NA			NA			40%			NA			70%			70%	
MONITORING:																		
# grafted fruit tree seedlings planted and survived	0	20,000			20,000			10,000			10,000			10,000			70,000	
# fuelwood/forest tree seedlings planted & survived	0	10,000			10,000			5,000			5,000			5,000			35,000	
# km vegetative contour barriers and/or solid structures built on hillside and gullies	0	5			5			5			5			5			25	
# farmers trained in watershed & natural resource management	0	1,100			1,100			1,100			1,100			1,100			5,500	

Indicator	Base-line	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs Target	FY 05 Target	FY 05 Achieved	FY 05 % Achieved vs Target	FY 06 Target	FY 06 Achieved	FY 06 % Achieved vs Target	LOA Target	LOA Achieved
SO 3, IR 3.1: Improved quality in primary education																		
IMPACT:																		
Average primary school completion rates of school children in participating schools	TBD	NA		+5%				NA			NA			NA			NA	
IMPACT (OUTCOME LEVEL):																		
Average attendance rates of school children in participating schools	TBD	NA		+10%				NA			NA			NA			NA	
MONITORING:																		
# children receiving school meals	NA	14,000			10,500			0			0						22,000	

NA: "Not Applicable"; indicates those impact indicators which will only be measured 3 times during the life of the project (at baseline, mid-term and for the final evaluation);

SO2 and SO3 impact indicators: data for some of these impact or outcome indicators will be collected on an annual basis

TBD: "To Be Determined", secondary data is not available for these indicators, the baseline numbers will be determined after the baseline survey is completed

Other: Targets for impact indicators will be adjusted as required after the baseline data is collected

*: Foundation seeds of Maize (M), Peanuts (P), Pigeon Peas (Pp), and Sorghum (S)

ANNEX 2: SUMMARY OF TITLE II GENERIC INDICATORS

Category	Level	Indicator
Health, nutrition and MCH	Impact	% stunted children 24-59 months (height/age z-score)
		% underweight children by age group (<36, 36-59, or 12-36 mos -weight/age z-scores)
		% infants breastfed w/in 8 hours of birth
		% infants under 6 months breastfed only
		% infants 6-10 months fed complementary foods
		% infants continuously fed during diarrhea
	Annual monitoring	% infants fed extra food for 2 weeks after diarrhea
		% eligible children in growth monitoring/promotion
		% children immunized for measles at 12 months
		% of communities with community health organization
Water and sanitation	Impact	% children in growth promotion program gaining weight in past 3 months by gender
		% infants with diarrhea in last two weeks
		liters of household water use per person
		% population with proper hand washing behavior
	% households with access to adequate sanitation (also annual monitoring)	
Annual monitoring	% households with year-round access to safe water	
% water/sanitation facilities maintained by community		
Household food consumption	Impact	% households consuming minimum daily food requirements
		number of meals/snacks eaten per day
		number of different food/food groups eaten
Agricultural productivity	Impact	annual yield of targeted crops
		yield gaps (actual vs. potential)
		yield variability under varying conditions
		value of agricultural production per vulnerable household
		months of household grain provisions
		% of crops lost to pests or environment
	Annual monitoring	annual yield of targeted crops
		number of hectares in which improved practices adopted
Natural resource management	Impact	number of storage facilities built and used
		imputed soil erosion
		imputed soil fertility
	Annual monitoring	yields or yield variability (also annual monitoring)
		number of hectares in which NRM practices used
seedling/sapling survival rate		
FFW/CFW road	Impact	agriculture input price margins between areas
		availability of key agriculture inputs
		staple food transport costs by seasons
		volume of agriculture produce transported by households to markets
		volume of vehicle traffic by vehicle type
	Annual monitoring	kilometers of farm to market roads rehabilitated
		selected annual measurements of the impact indicators

ANNEX 3: HAITI EXPANDED LOGFRAME MATRIX

LOGFRAME INDICATOR	INDICATOR DEFINITION	DATA SOURCE	DATA COLLECTION METHODOLOGY	FREQUENCY OF DATA COLLECTION	WHO IS RESPONSIBLE
HEALTH IR 1.1: Improved Access and Utilization of Health Services of Targeted Households					
IMPACT:					
% children (12-23 months) fully immunized	Fully immunized = child has received all MOH recommended immunizations before 12 months (BCG, DPT, Polio and Measles)	<u>Baseline secondary data:</u> from EMMUS-III, 2000 <u>Primary data:</u> from household survey	Primary data: 30 cluster random household survey, immunization status verified by MOH immunization card and mother's report	Baseline, mid-term, evaluation	M&E Coordinator Health Director Project staff
% children < 36 months with diarrhea in last 2 weeks	Diarrhea = more than 3 loose stools passed in a 24 hour period	<u>Baseline secondary data:</u> from Emmus-III, 2000 <u>Primary data:</u> from household survey	Primary data: 30 cluster random household survey, verified by mother's report	Baseline, mid-term, evaluation	M&E Coordinator Health Director Project staff
IMPACT (OUTCOME):					
% households with access to health facilities	<u>Access to health facilities</u> = the home is ≤ 30 minutes walk from a health facility	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household survey	Primary data: 30 cluster random household survey, verified by mother's report	Baseline, mid-term, evaluation	M&E coordinator Health coordinator Project staff
% households with access to potable water	<u>Potable water</u> = water from a faucet, protected well or other protected water source <u>Access to potable water</u> = the home is connected directly to a piped system, or the water source is ≤ 15 minutes walk from the home	<u>Baseline secondary data:</u> from EMMUS-III, 2000 <u>Primary data:</u> from household survey	Primary data: 30 cluster random household survey, verified by mother's report	Baseline, mid-term, evaluation	M&E coordinator Health coordinator Project staff
MONITORING:					
# health facilities equipped	<u>Health facilities equipped</u> =	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project health reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff

ANNEX 3: HAITI EXPANDED LOGFRAME MATRIX

LOGFRAME INDICATOR	INDICATOR DEFINITION	DATA SOURCE	DATA COLLECTION METHODOLOGY	FREQUENCY OF DATA COLLECTION	WHO IS RESPONSIBLE
# health facilities constructed		<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project health reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff
# water sources rehabilitated	<u>water sources</u> = protected springs	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project health reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff
# community health workers trained	Trained = training curriculum on: immunizations, nutrition, breast feeding, diarrhea, HIV/AIDS, family planning; 3 days training per quarter	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project health reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff
# women receiving health education	<u>Health education</u> = training curriculum on: immunizations, nutrition, breast feeding, diarrhea, HIV/AIDS, family planning;	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project health reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff
HEALTH: IR 1.2 Improved nutritional status of targeted children, women and vulnerable groups					
IMPACT:					
% underweight children 6 – 59 months	Underweight = weight for age < -2 z-scores	<u>Baseline secondary data:</u> from EMMUS-II, 1995 <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey; anthropometric measurement of children	Baseline, mid-term and evaluation	M&E Coordinator Health Director Project staff
% stunted children 6 – 59 months	Stunted = height for age < -2 z-scores	<u>Baseline secondary data:</u> from EMMUS-II, 1995 <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey; anthropometric measurement of children	Baseline, mid-term and evaluation	M&E Coordinator Health Director Project staff

IMPACT (OUTCOME):					
% households with improved diet diversity	<u>Diet diversity</u> = average number of food groups consumed in household in 24 hour period (FANTA definition, using FAO list of food groups)	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by mother's report	Baseline, mid-term and evaluation	M&E Coordinator Health Director Project staff
Average number of meals per day per household	<u>Meals</u> = eating occasions in household	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by mother's report	Baseline, mid-term and evaluation	M&E Coordinator Health Director Project staff
MONITORING:					
# eligible children in nutrition program	<u>Eligible children</u> = Malnourished children with Gomez classification of M2 or M3 (or z-scores < -2) <u>nutrition program</u> = receiving growth monitoring, food rations, mothers receiving nutrition education	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project nutrition reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff
# pregnant or lactating women in nutrition program	<u>Nutrition program</u> = Pregnant and lactating women receive rations and nutrition education	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project nutrition reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Health Director Health and Project staff

HOUSEHOLD ECONOMY: IR 2.1 IMPROVED ENVIRONMENTALLY SUSTAINABLE AGRICULTURAL PRODUCTIVITY OF TARGETED HOUSEHOLDS					
IMPACT:					
% targeted households with increased targeted assets	Targeted assets = animals (goats, pigs, cattle, guinea fowls, land, oxen farming tools) (proxy indicator for household income)	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by farmer's report;	Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project agriculture extension workers
Average production of targeted crops	<u>Production</u> = kg per hectare <u>Targeted crops</u> = maize, sorghum, pigeon pea, peanuts, plantain, cassava and sweet potato	<u>Baseline secondary data:</u> maize: 1-2.5 t/ha Cassava: 4.0 t/ha (fresh tubers) <u>Primary data:</u> from agriculture surveys, verified with household surveys	<u>Primary data:</u> Agriculture survey conducted with targeted farmers; 30 cluster random household survey, verified by farmer's report;	Annual agriculture surveys Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers
IMPACT (OUTCOME):					
% targeted farmers using improved technologies	<u>Improved technologies</u> Include: improved varieties or breeds, improved farming practices such as incorporating crop debris, use of organic manure, legume trees/shrubs, etc.	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by farmer's report	Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers
Average months (after harvest) of household food supplies	<u>Household food supplies</u> = staple food groups (cereals, pulses, roots and tubers) stored by household for their own consumption	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from agriculture surveys, verified with household surveys	<u>Primary data:</u> Agriculture survey conducted annually with targeted farmers; 30 cluster random household survey, verified by farmer's report;	Annual agriculture surveys Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers

% households producing charcoal	Households cutting trees and burning them to obtain charcoal	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by farmer's report	Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers
MONITORING:					
# on-farm trials established	<u>On-farm trials</u> = trials at farmers' fields under their own conditions	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
# farmers trained in the use of improved technologies	<i>Trained = have received on-the-job training on how to</i>	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
Average quantity of improved seeds produced and distributed	<u>Improved seeds</u> = seeds of improved varieties	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
HOUSEHOLD ECONOMY: IR 2.2 Diversified household farm production for increased household assets					
IMPACT:					
% of households with increased targeted assets	<u>targeted assets</u> = (see above) (proxy indicator for household income)	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by farmer's report;	Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers
IMPACT (OUTCOME):					
% targeted farmers producing targeted vegetable crops for market	<u>Targeted vegetable crops</u> = pumpkins, garden eggs, tomato, carrots, onions, etc.	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from household surveys	Primary data: 30 cluster random household survey, verified by farmer's report	Baseline, mid-term and evaluation Annual agriculture surveys	M&E coordinator Agriculture director Project extension workers

Average area of land planted with plantains (110 households per year)	<u>Area</u> = m ² or hectare	<u>Baseline secondary data</u> : not available <u>Primary data</u> : from agriculture surveys	Primary data: Agriculture survey conducted with targeted farmers	Annual agriculture surveys	M&E coordinator Agriculture director Project extension workers
MONITORING:					
# farmers trained in bio-intensive market gardening	<u>Bio-intensive market gardening</u> = Highly diversified homestead gardening, with also a commercial goal	<u>Baseline secondary data</u> : none or not applicable <u>Primary data</u> : Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
# plantain suckers planted and survived	<u>Plantain suckers</u> = plantain shoots used as planting material for vegetative propagation	<u>Baseline secondary data</u> : none or not applicable <u>Primary data</u> : Project ag reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
HOUSEHOLD ECONOMY: IR 2.3 Productive infrastructures restored					
IMPACT:					
Average production of targeted commercial fruit trees	<u>Production</u> = kg of fresh fruit per hectare	<u>Baseline secondary data</u> : not available <u>Primary data</u> : from agriculture surveys, verified with household surveys	Primary data: Agriculture survey conducted with targeted farmers ; 30 cluster random household survey, verified by farmer's report;	Annual agriculture surveys Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers
IMPACT (OUTCOME):					
Average area of land planted with fruit trees	<u>Area of land</u> = in hectares <u>Fruit trees</u> = grafted mango and avocado trees	<u>Baseline secondary data</u> : not available <u>Primary data</u> : from agriculture surveys	Primary data: Agriculture survey conducted with targeted farmers and farmer groups	Annual agriculture surveys	M&E coordinator Agriculture director Project extension workers

Average area of watershed planted with fuelwood/ forest trees	<u>Watershed</u> = an area of land bounded by topographic features that drains water to a shared destination such as lakes, streams. <u>Fuelwood/ forest trees</u> = fast growing trees to be used as energy source or for timber	<u>Baseline secondary data</u> : not available <u>Primary data</u> : from agriculture surveys	Primary data: Agriculture survey conducted with targeted farmers and farmer groups	Annual agriculture surveys	M&E coordinator Agriculture director Project extension workers
% farmers using natural resource management practices	<u>Natural resource management practices</u> = practices that outline the sustainable use of renewable resources of nature	<u>Baseline secondary data</u> : not available <u>Primary data</u> : from household surveys	Primary data: 30 cluster random household survey, verified by farmer's report;	Baseline, mid-term and evaluation	M&E coordinator Agriculture director Project extension workers
MONITORING:					
# grafted fruit tree seedlings planted and survived	<u>Grafted fruit tree seedlings</u> = little fruit trees produced with grafting techniques	<u>Baseline secondary data</u> : none or not applicable <u>Primary data</u> : Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
# fuelwood / forest tree seedlings planted and survived	<u>Fuelwood/ forest tree seedlings</u> = little fuelwood/forest trees raised in nurseries transplanted in a given area	<u>Baseline secondary data</u> : none or not applicable <u>Primary data</u> : Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers

# km vegetative contour barriers and/ or solid structures built on hillside and gullies	Vegetative contour barriers = erosion control structures built with vegetation (trees, shrubs), perpendicularly to the slope <u>Solid structures</u> = erosion control structures built with stones, perpendicularly to the slope	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
# farmers trained in watershed and natural resource management	<u>Watershed management</u> = controls the quantity and quality of water releases and influences the wise and effective use of water resources for irrigation, drinking water, etc.	<u>Baseline secondary data:</u> none or not applicable <u>Primary data:</u> Project agriculture reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Agriculture director Project extension workers
EDUCATION: IR 3.1 Improved quality in primary education					
IMPACT:					
Average primary school completion rates of school children in participating schools	Primary school completion rates = official rates of children completing of Primary grade 6	<u>Baseline secondary data:</u> from national statistics <u>Primary data:</u> from school surveys	Surveys of records of participating schools	Annually	M&E coordinator Project education staff
IMPACT (OUTCOME):					
Average attendance rates of school children in participating schools	Attendance rates = Average # days school attended / # school days Per child	<u>Baseline secondary data:</u> not available <u>Primary data:</u> from school surveys	Surveys of records of participating schools	Annually	M&E coordinator Project education staff
MONITORING:					
# children receiving school meals	School meals = one meal per day, at or before 10:30 am, typically a porridge made from SFB, lentils and cooking oil	Baseline: not applicable <u>Primary data:</u> Project education / school reports	Management information system, including analysis of project reports and records	Monthly and quarterly internal reports Annual report for CSR4	M&E coordinator Project education staff

ANNEX 4: SCOPE OF WORK

Consultant to World Vision Mauritania

25 Days During the Time Period of September XX to November XX, 2001

Objective:

To facilitate the design, planning, training, implementation, analysis and report writing of the Baseline Household Survey in targeted project areas in World Vision Mauritania (WVM).

Specific Tasks:

- **Survey Design:** in collaboration with key WVM and Doulous staff, prepare a brief document outlining details of the survey design. (This document is intended as a guide that can be used again for the mid-term and final surveys.)
- **Survey Planning/ Preparation:** in collaboration with key WVM and Doulous staff, prepare a detailed logistic plan and timeline on how the survey will happen.
- **Questionnaire Preparation:** in collaboration with key WVM and Doulous staff, draft the survey questionnaire which will address the indicators in the M&E plan; in addition provide training on how the questionnaire should be pre-tested and then translated into the local language.
- **Data Base Design:** prepare the data base based on the questionnaire and provide training on how data will be entered.
- **Survey Training:** provide training of trainers for key WVM staff (or local consultants) who will supervise the data collection and data entry.
- **Data Collection:** *will be done by field staff*
- **Data Entry:** *will be done by field staff*
- **Data Analysis:** analyze the data using either EPI-Info or SPSS, whichever software package the consultant prefers
- **Written Report:** draft the survey report following the format of a survey report example which will be provided
- **Entry of data into the Indicator Tracking Table:** Once the data is collected from the survey, enter the data into the Performance Indicator Tracking Table, and provide advice on re-adjusting targets.
- **Possible additional task (if time allows):** work with key WVM staff to develop a monitoring system for project activities, and which will track the monitoring indicators.

Process:

- Working in close collaboration with XX, the consultant will develop a process for meeting the above objective and completion of the specific tasks. The consultant will expect timely feedback and communication from World Vision to ensure that the objectives are being met in a satisfactory manner.
- It is anticipated that this process will take a maximum of 25 working days, with a completion date of November 30, 2001. If additional time is needed, WV will be informed at least 2 weeks before the agreed upon deadline.
- Time spent in Mauritania will be approximately 7 – 10 days, with an anticipated arrival date of September 22nd.

- The final survey report will be prepared in electronic format, in Microsoft Word, and using the format of the survey report example provided.
- The consultant will be paid \$XXX per day over the indicated time period, (not to exceed 25 working days). When traveling internationally, all accommodations, transport, and daily expenses will be paid by WVM and World Vision, Inc.

Expected Output:

- A survey report, in both hard and electronic copy, will be submitted to WVM and World Vision United States, upon completion of the consultancy.

ANNEX 5: BANGLADESH BASELINE SURVEY QUESTIONNAIRE

WORLD VISION BANGLADESH FOOD SECURITY ENHANCEMENT INITIATIVE

October / November 2000

SECTION 1. HOUSEHOLD IDENTIFICATION

This section is to be completed by the SUPERVISOR for each household visited, except where indicated.

101. Name of District

102. Name of Upa-Zilla

103. Name of Union

104. Name of Village (or Town)

105. Name of Ward (in towns only)

106. Cluster number

107. Household number (within cluster)

108. Interviewer number

Day: Month: Year:

109. Date of Interview

110. Record Number from SPSS

Data entry clerk to complete

On the following pages:

1. The interviewer writes the answers by marking the boxes on the left side of each form.
2. The supervisor fills the right hand column designated "Office use only" as they perform the field edit **BEFORE** leaving the cluster.
3. Any gaps or missing information must be obtained immediately before leaving the village.

	Field Edited By:	Office Edited By:	Keyed in By:
NAME			
DATE			

SECTION 2. HOUSEHOLD CHARACTERISTICS**INSTRUCTIONS:**

*The questions in this section are for the **WOMAN** in the household, normally the mother. If there is more than one mother, interview the mother of the youngest children in the household. After asking this question, continue with the other questions about each person in the household*

201. – 250. Can you tell me the names of all the members of the household who live here, sleep here more than half the week and eat from the same bowl, including yourself? Please include children, relatives or orphans but do not count temporary visitors.

HOUSEHOLD MEMBER LISTING FORM:

	A. First name of household member	B. Relation To hh head	C. Gender	D. Date of birth	E. Highest Level of school Completed	F. Enrolled In school now	Office Use Only
		1.head 2.spouse 3.child 4.relative 5.other	1.male 2.female	Write in date of birth(month/ year)	Write grade level. Use 13 for post degree.	1.yes 2.no	
1.		201.	202.	203.	204.	205.	201 – 250 Key in figures from table at left
2.		206.	207.	208.	209.	210.	
3.		211.	212.	213.	214.	215.	
4.		216.	217.	218.	219.	220.	
5.		221.	222.	223.	224.	225.	
6.		226.	227.	228.	229.	230.	
7.		231.	232.	233.	234.	235.	
8.		236.	237.	238.	239.	240.	
9.		241.	242.	243.	244.	245.	
10.		246.	247.	248.	249.	250.	

SECTION 3. FOOD CONSUMPTION/DIETARY DIVERSITY

INSTRUCTIONS:

The questions in this section are for the WOMAN in the household, normally the mother. If there is more than one mother, interview the mother of the youngest children in the household.

301. – 312. Yesterday, did you or anyone in your household consume any of the following foods?

Food Group	Yesterday, did you or anyone in your household consume any of the following foods?	Food Group	Yesterday, did you or anyone in your household consume any of the following foods?
CEREAL: Rice, wheat	301. 1. Yes 2. No 3. Don't know	FISH:	307. 1. Yes 2. No 3. Don't know
ROOTS / TUBERS: Potato, sweet potato, shimoul	302. 1. Yes 2. No 3. Don't know	OIL / FAT:	308. 1. Yes 2. No 3. Don't know
LEGUMES: Beans, dal,	303. 1. Yes 2. No 3. Don't know	SUGAR / HONEY / MOLASSES:	309. 1. Yes 2. No 3. Don't know
MILK / MILK PRODUCTS:	304. 1. Yes 2. No 3. Don't know	FRUITS: banana, mango, papaya, pineapple, guava, jackfruit, orange, jamboura, blackberry	310. 1. Yes 2. No 3. Don't know
EGGS:	305. 1. Yes 2. No 3. Don't know	VEGETABLES: greens, eggplant, pumpkin, tomato, ladyfinger, oram, squash	311. 1. Yes 2. No 3. Don't know
MEAT: Beef, mutton, pork	306. 1. Yes 2. No 3. Don't know	POULTRY: chicken, duck, pigeon	312. 1. Yes 2. No 3. Don't know

301. – 312.
Key in figures
From table at
left.

SECTION 4. WATER/SANITATION**INSTRUCTIONS:**

The questions in this section are for the WOMAN in the household, normally the mother.

401. – 402. What is the main source of drinking water for members of your household, during the dry and the rainy season?

401.	402.		
		DRY	RAINY
			1. Piped water
			2. Deep tube well with hand pump
			3. Shallow well with hand pump
			4. Open well without cement cover (ring well)
			5. Spring / river / stream
			6. Rainwater tank
			7. Pond / lake / dam
			8. Other _____

401.	<input type="text"/>
402.	<input type="text"/>

403. – 404. How far is it to your main drinking water source, during the dry and the rainy season?

403.	404.		
		DRY	RAINY
			1. Inside the house / dwelling
			2. Inside the yard / plot
			3. 0 – 5 minutes walk from house / yard / plot
			4. 5-15 minutes walk from house / yard / plot
			5. More than 15 minutes walk from house / yard / plot

403.	<input type="text"/>
404.	<input type="text"/>

405. – 406. Who maintains the drinking water source, during the dry and the rainy season?

405.	406.		
		DRY	RAINY
			1. Person in household
			2. Neighbor (or other owner)
			3. Co-maintained by neighbor and person in the household
			4. Village committee
			5. Municipality
			6. Other _____

405.	<input style="width: 50px; height: 20px;" type="text"/>
406.	<input style="width: 50px; height: 20px;" type="text"/>

407. – 408. How many other households use this water source, during the dry and the rainy season?

407.	408.		
		DRY	RAINY
			Write in actual number
			99. Don't know

407.	<input style="width: 50px; height: 20px;" type="text"/>
408.	<input style="width: 50px; height: 20px;" type="text"/>

409. – 410. Has the water source ever been tested for arsenic, during the dry and the rainy season?

409.	410.		
		DRY	RAINY
			1. Yes, tested positive
			2. Yes, tested negative
			3. No
			4. Don't know

409.	<input style="width: 50px; height: 20px;" type="text"/>
410.	<input style="width: 50px; height: 20px;" type="text"/>

411. – 419. When do you wash your hands?

INSTRUCTIONS:

DO NOT PROMPT FOR ANSWERS. Tick any of the following that the mother mentions (1=yes, 2=no).

<input type="checkbox"/>	411. Before food preparation	411.	<input type="checkbox"/>
<input type="checkbox"/>	412. Before eating	412.	<input type="checkbox"/>
<input type="checkbox"/>	413. Before feeding children	413.	<input type="checkbox"/>
<input type="checkbox"/>	414. After defecation	414.	<input type="checkbox"/>
<input type="checkbox"/>	415. After cleaning babies	415.	<input type="checkbox"/>
<input type="checkbox"/>	416. After returning from outside	416.	<input type="checkbox"/>
<input type="checkbox"/>	417. After handling garbage	417.	<input type="checkbox"/>
<input type="checkbox"/>	418. Before praying	418.	<input type="checkbox"/>
<input type="checkbox"/>	419. Other _____	419.	<input type="checkbox"/>

420. What kind of toilet (or latrine) do most members of your household use?

<input type="checkbox"/>	1. Flush toilet		
<input type="checkbox"/>	2. Katcha (latrine no cement)		
<input type="checkbox"/>	3. Latrine improved with cement		
<input type="checkbox"/>	4. Hanging latrine over canal or river		
<input type="checkbox"/>	5. No facility / uses bush or field ⇒ go to 501.		
<input type="checkbox"/>	6. Other _____		
		420.	<input type="checkbox"/>

421. Do you share this toilet (or latrine) with other households?

<input type="checkbox"/>	1. Yes		
<input type="checkbox"/>	2. No		
<input type="checkbox"/>	3. Don't know		
		421.	<input type="checkbox"/>

422. Do you use this toilet (or latrine) everyday?

<input type="checkbox"/>	1. Yes		
<input type="checkbox"/>	2. No		
<input type="checkbox"/>	3. Yes, except when flooded during monsoons		
		422.	<input type="checkbox"/>

423. – 427. Who else in the family uses the toilet (or latrine) most of the time?

	423. All children between 12-59 months	423.	
	424. All children between 5-15 years	424.	
	425. All other adults	425.	
	426. Other _____	426.	
	427. No one	427.	

428. – 429. What happens with the stools of babies and young children in your household who do not use the toilet facility?

	428.	429.		
BABIES		CHILDREN		
			1. Thrown in toilet or latrine	
			2. Buried in yard	
		428.	3. Not disposed of / left on ground	
		429.	4. Other _____	

430. Who maintains the toilet (or latrine)?

	1. Member of household		
	2. Neighbor (or other owner)		
	3. Co-managed by household member and neighbor		
	4. Village committee		
	5. Municipality		
	6. Other _____	430.	

SECTION 5. DIARRHEA**INSTRUCTIONS:**

*The questions in this section are for the **WOMAN** in the household, normally the mother. THIS SECTION CAN BE SKIPPED IF THERE IS NO CHILD IN THE HOUSEHOLD LESS THAN 36 MONTHS.*

501. Has _____ (*name of child < 36 months*) had diarrhea (more than 3 loose or watery stools in a 24-hour period) in the last 2 weeks?

	1. Yes		501.	
	2. No ⇒ go to 601.			
	3. Don't know ⇒ go to 601.			

502. – 509. What was given to treat the diarrhea?

INSTRUCTIONS:

Tick each of the following that the mother mentions (1=yes, 2=no).

	502. Nothing	502.	
	503. Fluid from ORS packet	503.	
	504. Home made fluid	504.	
	505. Pill or syrup	505.	
	506. Injection	506.	
	507. Intravenous	507.	
	508. Home remedies / herbal medicines	508.	
	509. Other _____	509.	

510. When _____ (*name of child < 36 months*) had diarrhea, was he/she offered less than usual to drink, about the same amount, or more than usual to drink?

	1. Less		510.	
	2. Same			
	3. More			
	4. Nothing to drink			
	5. Don't know			

511. Was _____ (*name of child < 36 months*) offered less than usual to eat, about the same amount, or more than usual to eat?

	1. Less		511.	
	2. Same			
	3. More			
	4. Nothing to eat			
	5. Don't know			

512. Did you seek advice or treatment from someone outside of the home for _____'s (*name of child < 36 months*) diarrhea?

	1. Yes		512.	
	2. No ⇒ go to 601.			
	3. Don't know ⇒ go to 601.			

513. – 523. Where did you seek advice or treatment (**1=yes, 2=no**)?

	513. Hospital		513.	
	514. Thana Health Complex		514.	
	515. Family Welfare Center (Union)		515.	
	516. Clinic or dispensary (private)		516.	
	517. NGO clinic		517.	
	518. Community health worker		518.	
	519. Village doctor		519.	
	520. Traditional doctor (herbalist)		520.	
	521. Religious practitioner		521.	
	522. Neighbor		522.	
	523. Other _____		523.	

SECTION 6. EMERGENCY PREPAREDNESS/RESPONSE

INSTRUCTIONS: *The questions in this section are for the WOMAN in the household, normally the mother.*

601. – 602. When was the most recent flood or cyclone in your area (flood = beyond normal inundation where rising water cuts off transportation routes and damages homesteads. cyclone = coastal storm with tidal surges that produces high wind speed that causes property damage (crops, houses, or trees) or human or animal death)?

Month	Year	Never		
			601. Flood	601. <input type="text"/>
			602. Cyclone	602. <input type="text"/>

603. During the most recent flood or cyclone in your area, did your household have access to emergency relief supplies (emergency relief supplies = food, lantern, plastic sheet, water pot/purification tablets, clothes and other basic necessities)?

<input type="text"/>	1. Yes	
<input type="text"/>	2. No ⇒ go to 629.	
<input type="text"/>	3. Don't know ⇒ go to 629.	603. <input type="text"/>

604. – 618. If your household did have access to emergency relief supplies, what “emergency relief supplies” did you obtain (1=yes, 2=no)?

<input type="text"/>	604. Rice	604. <input type="text"/>
<input type="text"/>	605. Cooking oil	605. <input type="text"/>
<input type="text"/>	606. Chira / mori	606. <input type="text"/>
<input type="text"/>	607. Salt	607. <input type="text"/>
<input type="text"/>	608. Dal	608. <input type="text"/>
<input type="text"/>	609. Molasses / sugar	609. <input type="text"/>
<input type="text"/>	610. Khichuri	610. <input type="text"/>
<input type="text"/>	611. Chapati / bread / rooti	611. <input type="text"/>
<input type="text"/>	612. Lanterns / kerosene / Matches	612. <input type="text"/>
<input type="text"/>	613. Plastic sheet	613. <input type="text"/>
<input type="text"/>	614. Water purification tablets / water pot	614. <input type="text"/>
<input type="text"/>	615. ORS	615. <input type="text"/>
<input type="text"/>	616. Tin roofing	616. <input type="text"/>

<input type="checkbox"/>	617. Lungis / sari	617.	<input type="checkbox"/>
<input type="checkbox"/>	618. Medical supplies	618.	<input type="checkbox"/>
<input type="checkbox"/>	619. Cooking materials	619.	<input type="checkbox"/>
<input type="checkbox"/>	620. Other _____	620.	<input type="checkbox"/>

621. – 628. Who provided the emergency relief supplies (1=yes, 2=no)?

<input type="checkbox"/>	621. Government	621.	<input type="checkbox"/>
<input type="checkbox"/>	622. NGOs	622.	<input type="checkbox"/>
<input type="checkbox"/>	623. World Vision	623.	<input type="checkbox"/>
<input type="checkbox"/>	624. Purchased themselves	624.	<input type="checkbox"/>
<input type="checkbox"/>	625. Relative	625.	<input type="checkbox"/>
<input type="checkbox"/>	626. Neighbor or friend	626.	<input type="checkbox"/>
<input type="checkbox"/>	627. Religious Groups	627.	<input type="checkbox"/>
<input type="checkbox"/>	628. Other _____	628.	<input type="checkbox"/>

629. In the event of a flood or a cyclone, is there a contingency or evacuation plan?

<input type="checkbox"/>	1. Yes		629.	<input type="checkbox"/>
<input type="checkbox"/>	2. No ⇒ go to 701.			
<input type="checkbox"/>	3. Don't know ⇒ go to 701.			

630. – 634. Can you briefly describe the components of the contingency or evacuation plan (1=yes, 2=no)?

<input type="checkbox"/>	630. Shelter location	630.	<input type="checkbox"/>
<input type="checkbox"/>	631. Emergency food supplies available	631.	<input type="checkbox"/>
<input type="checkbox"/>	632. Non-food emergency supplies available	632.	<input type="checkbox"/>
<input type="checkbox"/>	633. Emergency medical treatment	633.	<input type="checkbox"/>
<input type="checkbox"/>	634. Boats for relocation available	634.	<input type="checkbox"/>

SECTION 7. HOUSEHOLD INCOME/DIVERSIFICATION

SECTION 7a: HOMESTEAD AGRICULTURE

INSTRUCTIONS:

*The questions in this section are for the **HOMESTEAD AGRICULTURE FARMER**, usually the woman. Questions 701 – 724 all refer to the chart below. Read these instructions carefully before filling in the chart:*

701, 705, 709, 713, 717, 721. Do you have any of these animals (**circle yes or no for each animal**)?

702, 706, 710, 714, 718, 722. How many animals do you have right now (write the number the farmer gives)?

703, 707, 711, 715, 719, 723. How much of this product was consumed by your household (for eggs, poultry, and milk, the number listed should be the average amount consumed per MONTH; for beef, sheep, goats and pigs, the number listed should be the average consumed per YEAR)?

704, 708, 712, 716, 720, 724. How much of this product was marketed (for eggs, poultry, and milk, the number listed should be the average amount consumed per MONTH; for beef, sheep, goats and pigs, the number listed should be the average consumed per YEAR)?

ANIMAL OWNERSHIP / PRODUCTION

	Poultry for eggs	Poultry for meat	Cattle for milk	Cattle for fattening	Sheep and Goats	Pigs	Office use only
Do you have any of these animals?	701. Yes No	705. Yes No	709. Yes No	713. Yes No	717. Yes No	721. Yes No	701-724 Key in figures From table at left
How many do you have?	702.	706.	710.	714.	718.	722.	
How much of this product was consumed by your household?	703. _____ Number of eggs/ month consumed (average)	707. _____ Number of poultry / month consumed (average)	711. _____ Liters of milk / month consumed (average)	715. _____ Number of cows / year consumed (average)	719. _____ Number of sheep, goats / year consumed (average)	723. _____ Number of pigs / year consumed (average)	
How much of this product was marketed?	704. _____ Number of eggs/ month marketed (average)	708. _____ Number of poultry / month marketed (average)	712. _____ Liters of milk / month marketed (average)	716. _____ Number of cows / year marketed (average)	720. _____ Number of sheep, goats / year marketed (average)	724. _____ Number of pigs / year marketed (average)	

SECTION 7b: INCOME DIVERSIFICATION**INSTRUCTIONS:**

The questions in this section are for the ON FARM AGRICULTURALIST, usually the man. The fish questions refer only to fish harvested from fish farming ponds.

725. Do you have any fish in ponds?

	1. Yes		725.	
	2. No ⇒ go to 753.			

726.– 752. What species of fish did you grow this year in fish ponds, and how much was harvested of each species (for household consumption and for marketing)?

SPECIES	HARVEST FROM PONDS FOR HOUSEHOLD CONSUMPTION	HARVEST FROM PONDS SOLD (KG)
726. Ruhu 1.Yes 2.No	727. Kg / year	728. Kg / year
729. Catla 1.Yes 2.No	730. Kg / year	731. Kg / year
732. Mrigal 1.Yes 2.No	733. Kg / year	734. Kg / year
735. Carp 1.Yes 2.No	736. Kg / year	737. Kg / year
738. Thai 1.Yes Shorputi 2.No	739. Kg / year	740. Kg / year
741. Nilotica 1.Yes 2.No	742. Kg / year	743. Kg / year
744. Pangus 1.Yes 2.No	745. Kg / year	746. Kg / year
747. Shrimp 1.Yes 2.No	748. Kg / year	749. Kg / year
750. Other 1.Yes 2.No	751. Kg / year	752. Kg / year

726. – 752.
Key in figures
from table at
left

753. – 766. What are the sources of income for your household over the previous year? Multiple answers are possible. Tick each one indicated by the farmer (1=yes 2=no).

<input type="checkbox"/>	753. Don't know	753.	<input type="checkbox"/>
<input type="checkbox"/>	754. Selling agricultural products (other than vegetables)	754.	<input type="checkbox"/>
<input type="checkbox"/>	755. Selling vegetables	755.	<input type="checkbox"/>
<input type="checkbox"/>	756. Selling fish	756.	<input type="checkbox"/>
<input type="checkbox"/>	757. Selling animal products	757.	<input type="checkbox"/>
<input type="checkbox"/>	758. Selling animals	758.	<input type="checkbox"/>
<input type="checkbox"/>	759. Day laborer (agriculture or non)	759.	<input type="checkbox"/>
<input type="checkbox"/>	760. Self employed (carpenter, etc)	760.	<input type="checkbox"/>
<input type="checkbox"/>	761. Salary	761.	<input type="checkbox"/>
<input type="checkbox"/>	762. Domestic work	762.	<input type="checkbox"/>
<input type="checkbox"/>	763. Small business (shop)	763.	<input type="checkbox"/>
<input type="checkbox"/>	764. Rickshaw driver	764.	<input type="checkbox"/>
<input type="checkbox"/>	765. Truck driver	765.	<input type="checkbox"/>
<input type="checkbox"/>	766. Other _____	766.	<input type="checkbox"/>

767. Which of the following income sources was the primary source of income for your household over the past year? Tick only one answer.

<input type="checkbox"/>	1. Don't know
<input type="checkbox"/>	2. Selling agricultural products (other than vegetables)
<input type="checkbox"/>	3. Selling vegetables
<input type="checkbox"/>	4. Selling fish
<input type="checkbox"/>	5. Selling animal products
<input type="checkbox"/>	6. Selling animals
<input type="checkbox"/>	7. Day laborer (agriculture or non)
<input type="checkbox"/>	8. Self employed (carpenter, etc)
<input type="checkbox"/>	9. Salary
<input type="checkbox"/>	10. Domestic work

<input type="checkbox"/>	11. Small Business (shop)		767.	<input type="checkbox"/>
<input type="checkbox"/>	12. Rickshaw driver			
<input type="checkbox"/>	13. Truck / car driver			
<input type="checkbox"/>	14. Other _____			

SECTION 8. AGRICULTURAL PRODUCTION

INSTRUCTIONS:

*The questions in this section are for the **ON FARM AGRICULTURALIST**, usually the man. Questions 801 – 870 refer to the chart below. Read the following instructions before filling in the chart:*

801. – 807. What crops did you cultivate last winter season (circle yes for each crop)?

808. – 814. What was the area that you planted for each crop? Repeat for each crop. Write the information however the farmer lists his acreage, either bigha, pakhi, kani or acres (winter season only). The calculations to HA will be done later.

815. – 821. Write the unit of measurement for crop area planted.

822. – 828. What was the production for each crop? Write the information however the farmer lists his production, either monds or kilograms (winter season only).

829. – 835. Write the unit of measurement for crop production (the calculations to Kg will be done later).

836. – 842. How much of your crop production was marketed? Write in the amount marketed from the winter season harvest. Use the same units of measurement as listed in the total production.

843. – 849. Leave these shaded boxes blank. The calculations will be done later.

AGRICULTURAL PRODUCTION/ PRODUCTIVITY: (last winter season only)

	What crops did you cultivate last winter season?	What was the area planted for each crop? (winter) <i>Write #</i>	Unit of Measure for crop area. <i>Circle Unit</i>	What was the production for each crop? (winter) <i>Write #</i>	Unit of Measure for crop production <i>Circle Unit</i>	How much of your crop production was marketed? <i>Write #</i>	Yield <i>Leave blank</i>	Office Use
RICE (improved variety)	801. 1.Yes 2.No	808.	815. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	822.	829. 1.Kg 2. Mond	836.	843. Kg / HA	801-849 Key in figures From table at left
RICE (traditional variety)	802. 1.Yes 2.No	809.	816. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	823.	830. 1.Kg 2. Mond	837.	844. Kg / HA	
WHEAT (improved variety)	803. 1.Yes 2.No	810.	817. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	824.	831. 1.Kg 2. Mond	838.	845. Kg / HA	
WHEAT (traditional variety)	804. 1.Yes 2.No	811.	818. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	825.	832. 1.Kg 2. Mond	839	846. Kg / HA	
SUGAR CANE	805. 1.Yes 2.No	812.	819. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	826.	833. 1.Kg 2. Mond	840.	847. Kg / HA	
LEGUME	806. 1.Yes 2.No	813.	820. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	827.	834. 1.Kg 2. Mond	841.	848. Kg / HA	
OILSEED	807. 1.Yes 2.No	814.	821. 1. Acre 2. Bigha 3. Pakhi 4. Kani 5. Decimal	828.	835. 1.Kg 2. Mond	842.	849. Kg / HA	

850. – 855. What is the total area or acreage you have cultivated last winter season? Write the information however the farmer lists his acreage (the calculations to HA will be done later).

<input type="text"/>	850. Bigha	850.	<input type="text"/>
<input type="text"/>	851. Pakhi	851.	<input type="text"/>
<input type="text"/>	852. Kani	852.	<input type="text"/>
<input type="text"/>	853. Decimals	853.	<input type="text"/>
<input type="text"/>	854. Acres	854.	<input type="text"/>
<input type="text"/>	855. HA	855.	<input type="text"/>

856. Did you use any improved farming practices this year (improved farming practices include row planting, spacing, using cropping patterns, improved seeds, soil and water conservation and proper storage)? Do not give suggestions.

<input type="text"/>	1. Yes ⇒ go to 878.		
<input type="text"/>	2. No ⇒ go to 889.		
<input type="text"/>	3. Don't know ⇒ go to 889.	856.	<input type="text"/>

857. – 866. If you used any improved farming practices this year, what were they? Multiple answers are possible. Tick each one indicated by the farmer (1= yes, 2=no).

<input type="text"/>	857. Don't know	857.	<input type="text"/>
<input type="text"/>	858. Row planting	858.	<input type="text"/>
<input type="text"/>	859. Spacing between rows	859.	<input type="text"/>
<input type="text"/>	860. Cropping pattern/rotation	860.	<input type="text"/>
<input type="text"/>	861. Improved seeds	861.	<input type="text"/>
<input type="text"/>	862. Soil and water conservation	862.	<input type="text"/>
<input type="text"/>	863. Airtight seed storage	863.	<input type="text"/>
<input type="text"/>	864. Pesticide	864.	<input type="text"/>
<input type="text"/>	865. Fertilizer	865.	<input type="text"/>
<input type="text"/>	866. Other _____	866.	<input type="text"/>

867. If you used any of these improved farming practices, how did you decide to use them?

	1. Another farmer's advice or demonstration	
	2. WV "model" farmer's advice or demonstration	
	3. WV extension agent's advice or demonstration	
	4. Government extension agent's advice or demonstration	
	5. Relative or friend's advice or demonstration	
	6. Other _____	
		867. <input style="width: 50px; height: 25px;" type="text"/>

868. Did you know the majority of the prices you would get when you went to the market this year to sell your agricultural and other products (other products = milk, eggs, fish)?

	1. Yes ⇒ go to 890.	
	2. No ⇒ go to 910.	
	3. Don't know ⇒ go to 910.	
		868. <input style="width: 50px; height: 25px;" type="text"/>

869. – 880. Where did you get your market information this year when you were selling your agricultural and other products (market or selling information = information on price of crops and market location)? Multiple answers are possible. Tick each one indicated by the farmer (1=yes 2=no).

	869. Don't know	869.	
	870. Another farmer	870.	
	871. A relative or friend	871.	
	872. A World Vision "model" farmer	872.	
	873. A World Vision extension agent	873.	
	874. Market vendors	874.	
	875. Marketing agents / buyers	875.	
	876. Government officials	876.	
	877. Radio	877.	
	878. Newspaper or other publication	878.	
	879. Posters	879.	
	880. Other _____	880.	

SECTION 9. PRACTICAL DEMONSTRATION

INSTRUCTIONS: *The questions in this section are for the WOMAN in the household, normally the mother.*

910. Does your household have a place for hand washing?

<input type="checkbox"/>	1. Yes		910.	<input type="checkbox"/>
<input type="checkbox"/>	2. No			
<input type="checkbox"/>	3. Don't know			

911. – 915. Can I see where you wash your hands (1=yes, 2=no)?

INSTRUCTIONS: *Observe handwashing site that is shown to you, then tick any of the following items that are seen.*

<input type="checkbox"/>	911. Water / hand pump / tap	911.	<input type="checkbox"/>
<input type="checkbox"/>	912. Soap, ash	912.	<input type="checkbox"/>
<input type="checkbox"/>	913. Leaves or mud	913.	<input type="checkbox"/>
<input type="checkbox"/>	914. bowl/bucket/gamla	914.	<input type="checkbox"/>
<input type="checkbox"/>	915. Other hand washing material	915.	<input type="checkbox"/>

916. – 922. Can you show me how you wash your hands (1=yes, 2=no)?

INSTRUCTIONS: *Go to handwashing site and observe handwashing technique that is demonstrated, then tick any of the following techniques that are observed.*

<input type="checkbox"/>	916. Uses water	916.	<input type="checkbox"/>
<input type="checkbox"/>	917. Uses soap, ash or other cleaning agent	917.	<input type="checkbox"/>
<input type="checkbox"/>	918. Washes both hands	918.	<input type="checkbox"/>
<input type="checkbox"/>	919. Rubs hands together at least 3 times	919.	<input type="checkbox"/>
<input type="checkbox"/>	920. Dries hands hygienically (by air drying or using a clean cloth)	920.	<input type="checkbox"/>
<input type="checkbox"/>	921. Other _____	921.	<input type="checkbox"/>
<input type="checkbox"/>	922. Refused to demonstrate handwashing	922.	<input type="checkbox"/>

923. – 929. May I see the toilet or latrine (1=yes, 2=no)?

INSTRUCTIONS:

Observe toilet or latrine that is shown to you, then tick any of the following items that are seen.

<input type="checkbox"/>	923. Feces on floor, with flies	923.	<input type="checkbox"/>
<input type="checkbox"/>	924. No feces on floor, dirty, with flies	924.	<input type="checkbox"/>
<input type="checkbox"/>	925. No feces on floor, clean, few flies	925.	<input type="checkbox"/>
<input type="checkbox"/>	926. Worn path from house to toilet	926.	<input type="checkbox"/>
<input type="checkbox"/>	927. Building maintained / in good condition	927.	<input type="checkbox"/>
<input type="checkbox"/>	928. Other _____	928.	<input type="checkbox"/>
<input type="checkbox"/>	929. Refused to show toilet or latrine	929.	<input type="checkbox"/>

ANNEX 6: RANDOM NUMBER TABLE*Random Number Table*

39634	62349	74088	65564	16379	19713	39153	69459	17986	24537
14595	35050	40469	27478	44526	67331	93365	54526	22356	93208
30734	71571	83722	79712	25775	65178	07763	82928	31131	30196
64628	89126	91254	24090	25752	03091	39411	73146	06089	15630
42831	95113	43511	42082	15140	34733	68076	18292	69486	80468
80583	70361	41047	26792	78466	03395	17635	09697	82447	31405
00209	90404	99457	72570	42194	49043	24330	14939	09865	45906
05409	20830	01911	60767	55248	79253	12317	84120	77772	50103
95836	22530	91785	80210	34361	52228	33869	94332	83868	61672
65358	70469	87149	89509	72176	18103	55169	79954	72002	20582
72249	04037	36192	40221	14918	53437	60571	40995	55006	10694
41692	40581	93050	48734	34652	41577	04631	49184	39295	81776
61885	50796	96822	82002	07973	52925	75467	86013	98072	91942
48917	48129	48624	48248	91465	54898	61220	18721	67387	66575
88378	84299	12193	03785	49314	39761	99132	28775	45276	91816
77800	25734	09801	92087	02955	12872	89848	48579	06028	13827
24028	03405	01178	06316	81916	40170	53665	87202	88638	47121
86558	84750	43994	01760	96205	27937	45416	71964	52261	30781
78545	49201	05329	14182	10971	90472	44682	39304	19819	55799
14969	64623	82780	35686	30941	14622	04126	25498	95452	63937
58697	31973	06303	94202	62287	56164	79157	98375	24558	99241
38449	46438	91579	01907	72146	05764	22400	94490	49833	09258
62134	87244	73348	80114	78490	64735	31010	66975	28652	36166
72749	13347	65030	26128	49067	27904	49953	74674	94617	13317
81638	36566	42709	33717	59943	12027	46547	61303	46699	76243
46574	79670	10342	89543	75030	23428	29541	32501	89422	87474
11873	57196	32209	67663	07990	12288	59245	83638	23642	61715
13862	72778	09949	23096	01791	19472	14634	31690	36602	62943
08312	27886	82321	28666	72998	22514	51054	22940	31842	54245
11071	44430	94664	91294	35163	05494	32882	23904	41340	61185
82509	11842	86963	50307	07510	32545	90717	46856	86079	13769
07426	67341	80314	58910	93948	85738	69444	09370	58194	28207
57696	25592	91221	95386	15857	84645	89659	80535	93233	82798
08074	89810	48521	90740	02687	83117	74920	25954	99629	78978
20128	53721	01518	40699	20849	04710	38989	91322	56057	58573
00190	27157	83208	79446	92987	61357	38752	55424	94518	45205
23798	55425	32454	34611	39605	39981	74691	40836	30812	38563
85306	57995	68222	39055	43890	36956	84861	63624	04961	55439
99719	36036	74274	53901	34643	06157	89500	57514	93977	42403
95970	81452	48873	00784	58347	40269	11880	43395	28249	38743
56651	91460	92462	98566	72062	18556	55052	47614	80044	60015
71499	80220	35750	67337	47556	55272	55249	79100	34014	17037
66660	78443	47545	70736	65419	77489	70831	73237	14970	23129
35483	84563	79956	88618	54619	24853	59783	47537	88822	47227
09262	25041	57862	19203	86103	02800	23198	70639	43757	52064

ANNEX 7: CREATING A DATABASE

Creating a Database

The first step in preparing for data entry is to create a database for entering the data. It is important to do this as soon as the questionnaire is completed. Creating the database can also serve as another check for the flow and accuracy of the survey.

Using Microsoft Access to Create your Database

A database can be created using a number of software programs SPSS, EPI-Info, or Excel. Access is a good program to use because:

- It is user friendly.
- It allows for transferring the database into other programs to statistically analyze the data (e.g. SPSS and EPI-Info).
- It can create internal checks that will verify the accuracy of the data and data entry.
- You can create a data entry form that looks similar to the questionnaire and is easy to use.

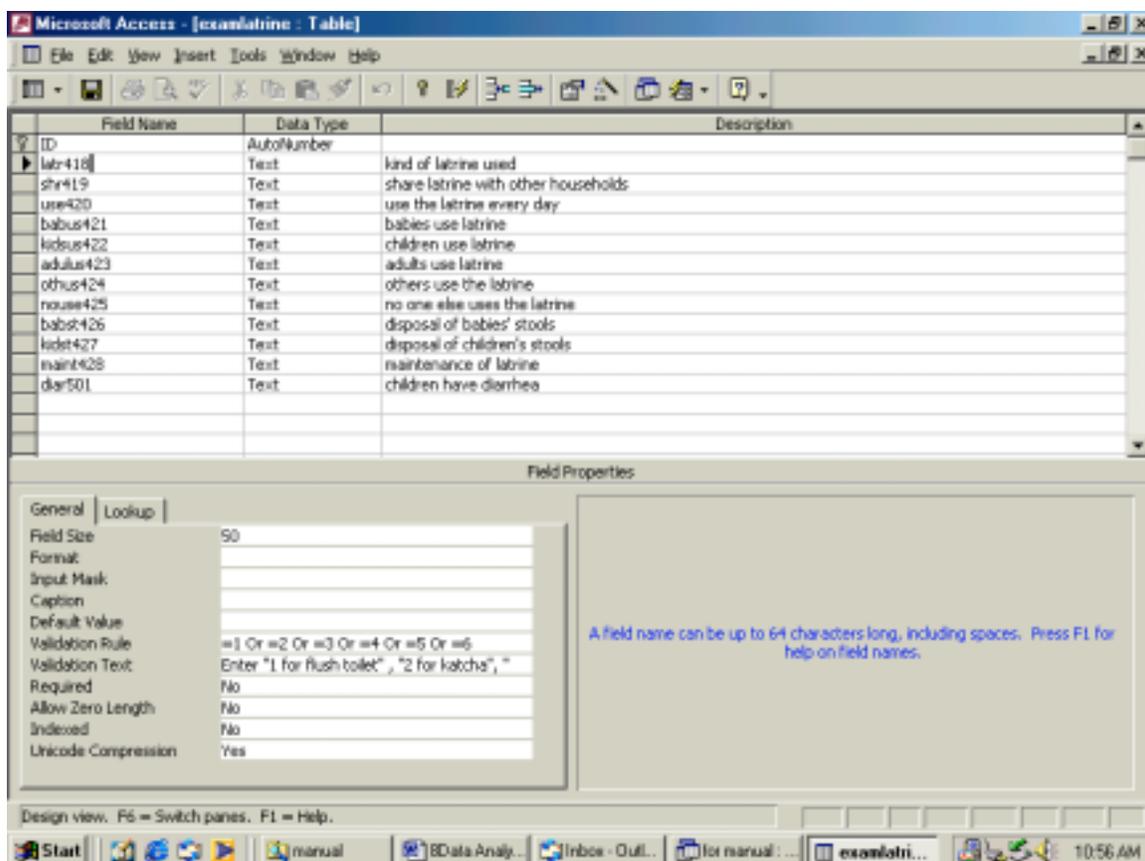
Creating a Table

The first step in creating your database is to create a table. This table will set up categories for each piece of data entered for each respondent. To create a table, follow these steps.

1. Open Microsoft Access
2. Select 'Blank Access Database'
3. Save the database with a new name and location (i.e. 'survey data' in wv folder)
4. Click on 'create'
5. Select 'Create table in design view'
6. Write in a field name for each field of data that you will enter. It is a good idea to include the number of the question in the field name. For example, for the question "What did you eat yesterday?", you might enter 'EAT301'. *Be sure to also fill in the description of this field name because it is easy to forget the creative abbreviation you made up a month before.

Also, this makes it easier for others to use your database.

- In the 'validation rule' box, type in any instructions. For example '=1 or =2' should be included for yes/no questions. Include more numbers as appropriate. This will instruct the table not to accept any numbers beyond the responses allowed on the questionnaire. For example, if the data entry assistant mistakenly enters '11' instead of '1', the table will not accept the number and will prompt the data entry assistant to correct the error.
- In the 'validation text' box, type in an explanation box that will appear as an error message should a number bigger than the programmed responses be entered into the box. For example: 'please enter "1 for yes" or "2 for no"'. Another example might be "1 for always", "2 for sometimes" or "3 for never". These should be the same responses and codes that are on your survey.

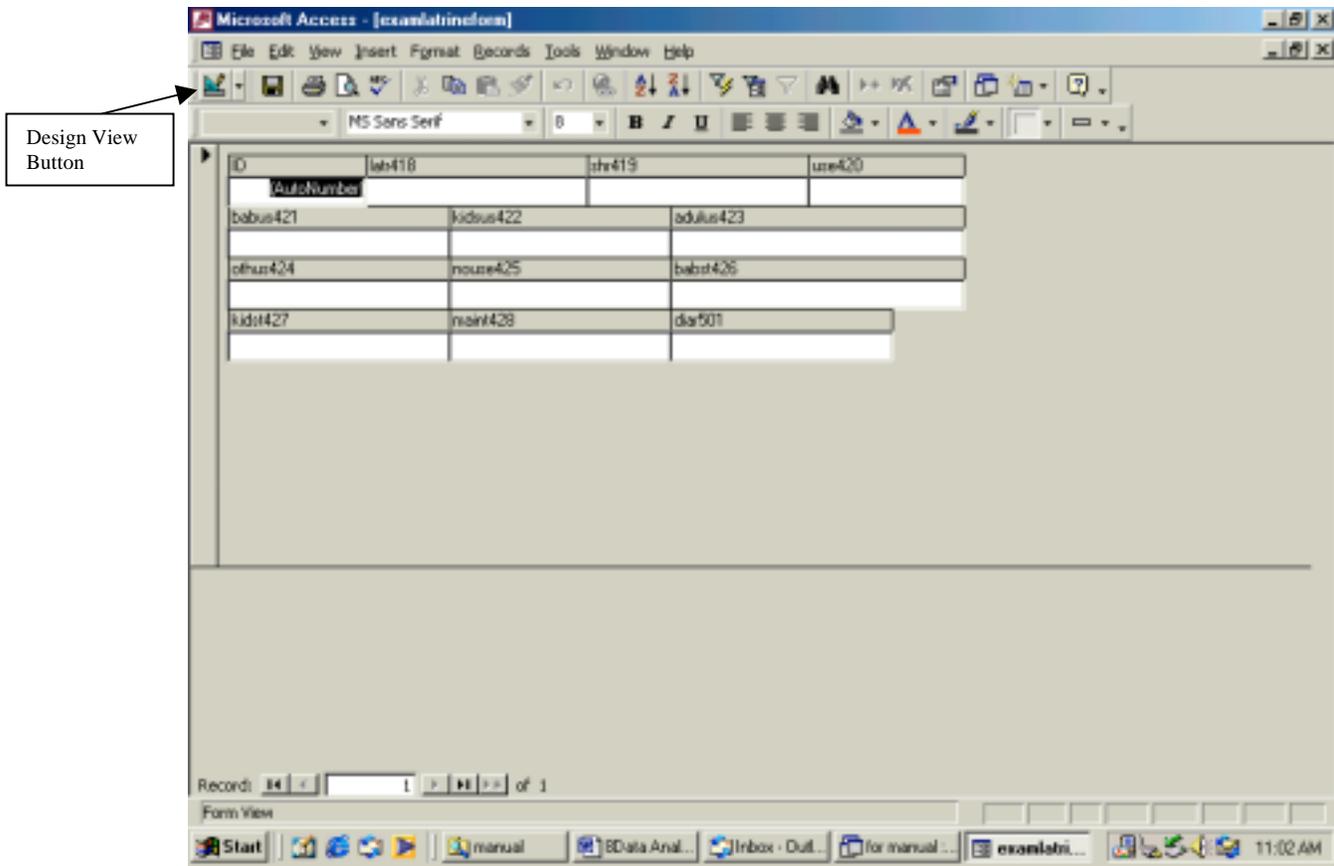


Creating a Form

The next step in creating a database is to create a form that will be used for data entry. It is possible to enter data directly into the tables, but this can easily lead to data **entry errors**. With a table, it is easy to get started in the wrong box and make repeated data entry mistakes because you are entering the data one box to the left or right. Data entry forms can be made to closely resemble the questionnaire, which makes it easier for data entry assistants to verify that they are entering the correct data to the correct box. To create a form:

The table must be completely finished before you create the form. Changes you make on the table won't show up in your form so you will have to recreate your form again to reflect changes.

1. Open your database
2. Click on 'forms'
3. Click on 'create form using wizard'
4. Select fields for your forms using < / >
5. Click on 'next'
6. Choose your form layout ('justified' forms often look more like the survey, and can be modified later to look even more like the survey)
7. Choose your form style (standard is the gray and blue, but there are also beach scenes, etc.)
8. Rename the form if desired
9. Finish



*Modify this form as necessary by clicking on the design icon in the upper left hand corner (located near the 'File' tab). You can click on the boxes and drag them around to new positions on the form. Drag these boxes around until it looks like your survey.

To provide an example, see the abbreviated survey below and the following form created to resemble it.

418. What kind of toilet (or latrine) do most members of your household use?

- | |
|--|
| |
| |
| |
| |
| |
| |
1. Flush toilet
 2. Katcha (latrine no cement)
 3. Latrine improved with cement
 4. Hanging latrine over canal or river
 5. No facility / uses bush or field → 501
 6. Other _____

Office Use Only

418.

419. Do you share this toilet (or latrine) with other households?

- | |
|--|
| |
| |
| |
1. Yes
 2. No
 3. Don't know

Office Use Only

419.

501. Has _____ (name of child < 36 months) had diarrhea (more than 3 loose or watery stools in a 24-hour period) in the last 2 weeks?

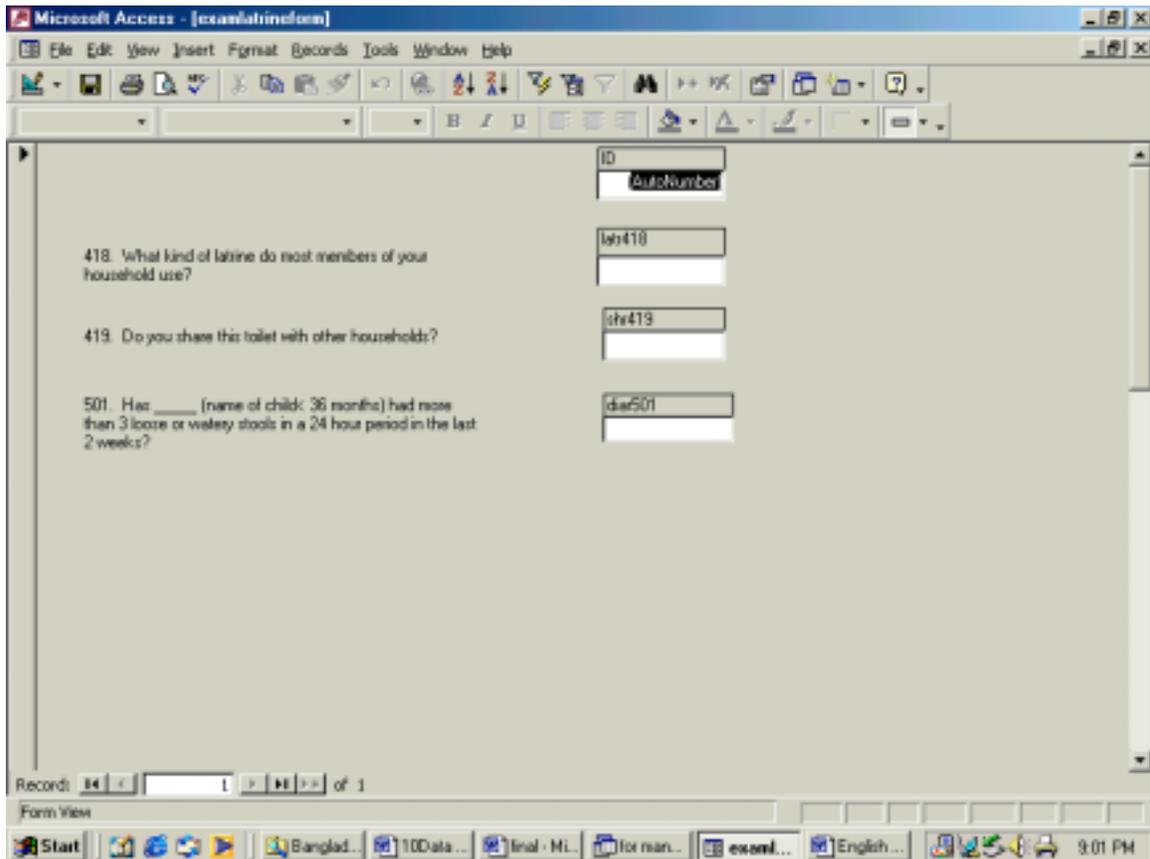
- | |
|--|
| |
|--|
1. Yes

Office Use Only

|

	2. No ⇒ go to 601	
	3. Don't know ⇒ go to 601	501. <input type="text"/>

Below is an example is a form that has been changed to resemble more closely the questionnaire.



Programming Data Entry Forms

Creating a form for data entry greatly reduces error, but with Microsoft Access, it is possible to program data accuracy checks and aids right into the form. For example, if you ask a respondent if she has children less than 36 months, often a 'no' answer will mean that the interviewer should skip the next few questions. Access can automatically do this for you to be sure that the interview was done correctly (no answers to questions that don't apply to the respondent) and will help the data entry assistant to be sure they are always entering their data into the right box.

To program skips in your data entry form, you must first open the form in 'design view' (press on the icon under the file tab).

1. Click on the data box (white) where you want to program the commands.
2. Choose the 'All' tab.
3. Scroll down to 'On Exit'

4. Double click on ‘...’ button
5. Click on ‘code builder’
6. Type in the command you want.

To take the example of latrines, your first question might ask if the family has a latrine. If the family has a latrine, there will be questions following that will ask how far away it is, do all the family members use it, etc. But if the family does not have a latrine, these next questions should be skipped. These instructions must be clear on the questionnaire, but programming can also avoid error at the time of data entry. This example will follow the abbreviated questionnaire above.

A sample command for the first question in the survey and on the access form would be:

```
Private Sub latr418_Exit(Cancel As Integer)
  If latr418.Text = 5 Then
    Me.diar501.SetFocus
  Else
    Me.shr419.SetFocus
  End If
End Sub
```

What this command is saying is that if people do not have a latrine (variable name ‘Latr418’ = 5) then skip to (diar501). For all other responses, go to the next question (shr419). Remember, this command to skip the latrine questions for those who do not have a latrine (Latr418 = 5) should be in your access database and should be CLEARLY written as an instruction on the questionnaire.

If you do not have experience in computer programming, you will probably need to request assistance from a computer programmer. It is possible to do the data entry without programming the data entry form. However, a programmed form will make data entry easier and will minimize the risk of data entry error.

Data Entry

Data Entry Equipment

You will need one desk and one fairly new computer (Windows 95 or better) to begin data entry. If your dataset is large and you have decided to have more than one data entry assistant, you will need two or three desks or computers. Be sure that data entry assistants have enough light and space to do their work. You will have to load whatever software you are using for your survey such as Microsoft Access (recommended), SPSS or Epi-Info.

Checking for Errors in Data

Field Edits

The first check for inaccuracies in the data should occur in the field. The boxes on the right hand side of the survey are designed not only to make data entry easier, but also to perform a preliminary check on the data collected in the field. Because the supervisors do this editing in the field, before the interview team leaves the village, there is still time to go back to clear up any confusion or inconsistencies. In their field edits, the supervisors who do the field editing should be looking for:

- **Inconsistencies** in the answers. For example, if the respondent tells you that there are no children in the house, then it is impossible that the ‘child’ in the house has suffered from diarrhea in the last two weeks.
- **Missing data.** Unless the questionnaire instructions state that a question should or can be skipped, the respondent must answer every question. If any questions are not answered, the supervisor must send the interview back to the house a second time to ask the question.
- **Multiple answers** when only one answer is permissible. Follow the questionnaire instructions closely, they will instruct the interviewer whether or not multiple answers are possible or not for each question.

Data Entry

Entering the data is another opportunity to look for errors in the data. The first job of the data entry assistants is to enter the data accurately. However, at the same time they should keep an eye out for any gaps or inconsistencies in the data. If you design your database well enough, there should be checks built in. For example, if there are no children in the house, the data entry form should skip directly over the questions pertaining to children.

Begin data entry while interviewers are still in the field. If there are major problems, you can correct them before it is too late.

In addition to looking for errors in data collection, have assistants report any problems with data entry or the survey in general. If they do this early enough, there might be enough time to correct problems before the survey is completed.

Spot Check

- The survey coordinator should spot check the work of the data entry assistants to be sure they are on the right track.
- The coordinator should **completely review the first 10 surveys** to be sure that the data entry assistant is not making errors (especially repeated errors). This will ensure that the assistant is careful in his or her work, and will make sure that he or she has understood the process.
- After establishing that the data entry is off to a good start, the survey coordinator should **check at random at least 10 % of the questionnaires entered** to be sure that there are no major errors.

Frequencies

The final and most important step in checking for data accuracy is for the survey coordinator to run frequencies for each variable (this will be explained in depth in the following section). Upon running frequencies, it will be easy to see if there are any numbers in the data that don't belong. For example, if the possible responses are "1 for yes" and "2 for no" and you see a 22, you can be sure that the data entry assistant mistakenly entered two two's instead of just one. When you see an error like this one, ALWAYS refer back to the original questionnaire to be sure that no other errors occurred on the same survey. It is possible that this error caused the data entry assistant to get behind or ahead of the sequence and to begin entering the data in the box to the left or the right of the correct box.

Data Analysis

When conducting data analysis, always be on the safe side. If you are unsure of what exactly you are doing, ALWAYS request help from your technical resource person. Statistics will always spit out numbers for you that can look impressive or fancy. However, if done incorrectly, these numbers don't mean much and can provide false or misleading results. This is especially true when working with cross tabs.

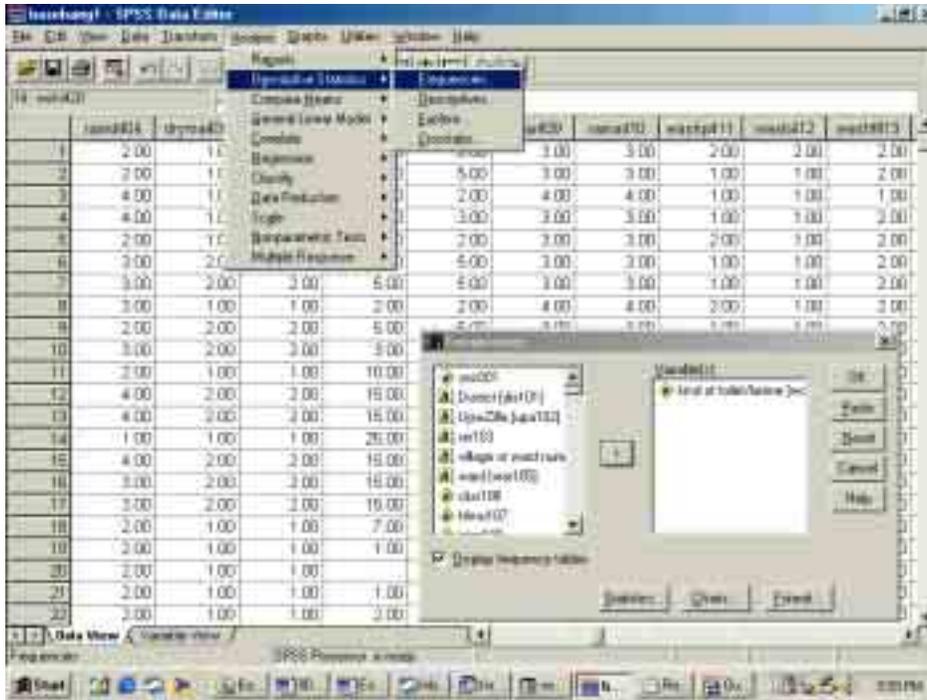
Frequencies

Frequencies are the best place to start your data analysis. They provide you with the basic number of responses for each variable or question.

Frequencies in SPSS

1. Click on 'Analyze'
2. Click on 'Descriptive Statistics'
3. Click on 'Frequencies'
4. Select desired variables
5. Click on 'Statistics'
6. Click on 'S.E. Mean'
7. If this is a numerical variable, also click on 'Mean'
8. Click on 'continue' and then 'OK'

The **standard error** (SE) provides a measure of variance found in the sample population. When the SE is multiplied x 2, it provides a confidence interval within which the true value for the population can be reasonably assumed to fall.



Below is an example of the output you will receive.

The screenshot shows the SPSS Output Viewer window displaying the 'Frequencies' output for the variable 'kind of toilet/latrine'. The output includes a 'Statistics' table and a main frequency table. Three callout boxes provide explanations: one for 'Frequency' (number of responses in that category), one for 'Standard Error' (measure of variance, smaller SE indicates stronger data), and one for 'Valid Percent' (percent of respondents excluding missing cases).

Statistics

kind of toilet/latrine	Valid	503
	Missing	1
Std. Error of Mean		5.695E-02

kind of toilet/latrine

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid flush toilet	5	1.0	1.0	1.0
katcha	185	36.7	36.8	37.8
latrine (cement)	162	32.1	32.2	70.0
hanging	21	4.2	4.2	74.2
no latrine	111	22.0	22.1	96.2
other	19	3.8	3.8	100.0
Total	503	99.8	100.0	
Missing System	1	.2		
Total	504	100.0		

Frequency = number of responses in that category

Standard Error = measure of variance. A small SE shows less variance, stronger data

Valid Percent: Percent of respondents (excluding missing cases)

Frequencies in EPI-INFO

*Always press enter at the end of each command

1. Select 'Programs'
2. Select 'Analysis of Data'
3. At the 'EPI6>' prompt, type 'read'
4. Select your database
5. At the 'EPI6>' prompt, type 'freq'
6. Press the 'F3' button on top of your keyboard to see a list of variables
7. Select the variables on which you want to run frequencies
8. Choose more than one variable by pressing 'F3' again.
9. Press 'enter' to run the frequencies

```

EPI6 - ANALYSIS
Dataset: D:\DORT\EPIINFO\SUDAN\TONJ96.REC (420 records)   Free memory: 285K
Criteria: All records selected                               Time: 0.11 sec

----- Output - Screen -----
=====> BROWSE

=====> read d:\dort\EPIinfo\Sudan\tonj96.rec
Only European dates found. Automatic SET EUROPEAN=ON performed.

=====> BROWSE

=====> freq SCH

SCH | Freq  Percent  Cum.
+   |    23    6.7%    6.7%
-   |   321   93.3%  100.0%
Total |   344  100.0%

----- Commands -----
EPI6>
EPI6> freq SCH
EPI6>

F1-Help  F2-Commands  F3-Variables  F4-Browse  F5-Printer on  F9-DOS  F10-Quit

```

Above is an example of the output you will receive with Epi-Info. In this example, we are looking at respondents who have been to school in southern Sudan. We can see that 23 respondents have been to school (+), or 6.7% of the sample. 321 respondents have not been to school (-) or 93.3% of the total sample of 344.

Crosstabs

Crosstabs (or cross tabulations) are useful when you want to see how two or more variables interact. For example, crosstabs can help you determine the percent of respondents with latrines who

Always ask for help or advice from your technical resource person when using statistics.

have children with diarrhea versus the percent of respondents without latrine who have children with diarrhea. Crosstabs work best when there are only a few categories in each variable. Crosstabs can provide valuable information in certain situations. However, they are not appropriate for all kinds of data. Be sure to ask for advice if you are not sure, you would not want to hurt the integrity of your entire survey just because you used crosstabs incorrectly.

Crosstabs in SPSS

1. Click on 'analyze'
2. Click on 'descriptive statistics'
3. Click on 'crosstabs'
4. Select the desired variables in each row and column. It is a good idea to put the independent variable (the one that doesn't change) in the column, and the dependent variable in the rows.
5. Click on 'statistics' and select the desired statistics, depending upon whether or not your data are nominal or ordinal (if you don't understand this, then you should request help from your technical resource person).
6. Click on 'cells'
7. Click on 'row'. This will calculate percentages across in rows. Think about this one, it is usually confusing. Sometimes it makes more sense to get your percentages in columns, in which case you should click on 'column'.
8. Click on 'continue'
9. Click on 'OK'

Below is an example of the output you will receive.

The screenshot shows the SPSS Output2 Viewer window. The main content area displays two tables. The first table is a 'Case Processing Summary' for the variable 'child under 36 months had diarrhea in last two weeks * kind of toilet/latrine'. The second table is a 'Crosstabulation' showing the relationship between 'child under 36 months had diarrhea in last two weeks' and 'kind of toilet/latrine'.

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
child under 36 months had diarrhea in last two weeks * kind of toilet/latrine	174	34.5%	330	65.5%	504	100.0%

			kind of toilet/latrine					Total
			katcha	latrine (cement)	hanging	no latrine	other	
child under 36 months had diarrhea in last two weeks	yes	Count	17	10	2	16	1	46
		% within kind of toilet/latrine	23.9%	21.7%	28.6%	34.8%	25.0%	26.4%
	no	Count	54	36	5	30	3	128
		% within kind of toilet/latrine	76.1%	78.3%	71.4%	65.2%	75.0%	73.6%
Total		Count	71	46	7	46	4	174
		% within kind of toilet/latrine	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In the example above, we can see that of those respondents with no latrine, 34% had children with diarrhea in the last two weeks. However, of those respondents with a cement latrine, only 21.7% had children with diarrhea in the last two weeks.

Crosstabs in EPI-INFO

*Always press enter at the end of each command

1. Select 'Programs'
2. Select 'Analysis of Data'
3. At the 'EPI6>' prompt, type 'read'
4. Select your database
5. At the 'EPI6>' prompt, type 'tables'
6. Press the 'F3' button on top of your keyboard to see a list of variables
7. Select the variables for which you want cross tabulations
8. Choose more than one variable by pressing 'F3' again.
9. Press enter to run the crosstabs

Below is an example of the output you will receive in EPI INFO.

The screenshot shows the EPI6 - ANALYSIS software interface. The main window displays the following information:

- Dataset: A:\TONJ96.REC (420 records)
- Criteria: All records selected
- Free memory: 272K
- Time: 0.00 sec

The main output area shows a cross-tabulation table titled "Tables TOI DIAR". The table has the following structure:

TOI	DIAR					Total
	0	1	2	3	4	
F	201	79	45	11	1	337
P	1	9	0	1	1	12
Total	202	88	45	12	2	349

Below the table, the following chi-square test results are displayed:

```

An expected value is < 5. Chi square not valid.
Chi square = 33.01
Degrees of freedom = 4
p value = 0.00000119 <---

```

The interface also shows a "Commands" section with the following text:

```

EPI6>
EPI6> Tables TOI DIAR
EPI6>

```

At the bottom of the window, a menu bar is visible with the following options: F1-Help, F2-Commands, F3-Variables, F4-Browse, F5-Printer on, F9-DOS, F10-Quit.

In the above example, the columns list the number of children with diarrhea in the household, and the rows list whether or not the family has a pit latrine (P) or uses the field (F). We can see that of the total sample, only 12 families have a pit latrine. Eleven of those families had at least one child with diarrhea.