

PREFACE

This tool kit was developed by The Task Force for Child Survival and Development at the request of the Early Child Development Team of the World Bank, to assist organizations in assessing the needs of children in areas heavily impacted by the HIV/AIDS epidemic. The survey instrument used to collect information was pilot tested with several families in Zimbabwe. Field testing of the kit using cluster sampling is currently underway in several sites.

The tool kit was designed to collect information at a district or city level. For appropriate precision, the survey requires sampling 25 clusters of at least 5 households each. For survey areas smaller than this, the use of simple random sampling or a survey of all households can be done; however, new sample sizes should be calculated. For larger areas, such as national estimates, the survey instrument itself can be used, but technical consultation would be required to assure appropriate sampling. The information collected from this survey will only be valid for the population as a whole. You cannot compare results between clusters. If you want to compare results from 2 or more different areas, you must conduct separate surveys in each area.

--- QUICK GUIDE TO THIS KIT ---

Please review the Table of Contents, which lists the information included in this tool kit.

The CNA Software needed for entering and analyzing data from the CNA questionnaire is loaded on a disk included with this tool kit. The self-extracting files will “unzip” when you install the software. See Appendix IV for instructions on installing and using the software.

A complete survey, in English, is offered in Appendix VII.

The blank survey template in Appendix VIII could be used when translating the survey, working with the English version along side the blank template.

A training manual is also included as a separate document.

We welcome your comments and feedback as you use this kit. Please address comments to Dr. Martha Rogers of the Task Force for Child Survival and Development (mrogers@taskforce.org or 404-592-1431) or to Amber Surrency of the Early Child Development Team of the World Bank (ecd@worldbank.org).

Thank you.

--- INTRODUCTION ---

Purpose and Use

This package is designed to assess the needs of young children in communities heavily affected by the HIV/AIDS epidemic. The assessment provides information about the household, family, the main caregiver of young children, each child under 8 years of age, their basic needs (housing, food, clothes, bedding, daily activities, health, education and childcare), and unmet needs. The information from the assessment is intended to be used to design service programs, targeted to the needs of these young children and their families.

The needs assessment is carried out through use of a survey of households in the area served by the organization, sometimes called the “catchment” area. We have based this survey on the commonly used technique of cluster sampling, because we assumed that the size of the population and lack of accurate mapping and census data would prohibit either a survey of all households in the catchment area or simple random sampling. A survey instrument, definitions, script for the interviewer, and training materials are included in the package. The software that accompanies this package includes a program for analysis and generation of reports.

Limitations of the Package

This survey is of households and will not capture information on children not living in households (e.g., children living on the street or in institutions).

The information collected from this survey will only be valid for the population as a whole. You cannot compare results between clusters. If you want to compare results from 2 or more different areas, you must conduct separate surveys in each area.

The survey instrument used to collect information was pilot tested with several families in Zimbabwe. Field test using cluster sampling is underway in several sites. The CNA Tool Kit will be revised as information from the field testing is analyzed. Updated versions can be obtained from the website: www.taskforce.org.

The tool kit was designed to collect information at a district or city level. For appropriate precision, the survey requires sampling 25 clusters of at least 5 eligible households each. For survey areas smaller than this, the use of simple random sampling or a survey of all households can be done; however, new sample sizes should be calculated. For larger areas, such as national estimates, the survey instrument itself could be used, but technical consultation would be required to assure appropriate sampling.

Intended User

The intended user is a typical non-governmental service organization (NGO), World Bank task manager, or district health office.

Skills Needed

Familiarity with conducting a survey, interviewing, cluster sampling and methodology, using a computer, and interpreting survey results.

INTRODUCTION

Overview of the Survey Domains

The survey is designed to collect information on the following major areas (domains) related to the needs of young children:

- Health care quality and access of both the children and primary caregiver
- Health status of both the children and primary caregiver
- Main caregiver's ability to care for an ill child
- Availability of support for the primary caregiver
- Basic needs such as clothing and bedding
- Nutrition
- Education
- Child care (other than by primary caregiver)
- Legal needs such as loss of property upon death of parent, guardianship
- Discrimination and stigma due to HIV in the family
- Family income and resources
- Living conditions such as housing, sanitation
- Transportation needs
- Psychosocial needs such as consistency in caregiver, stimulating daily activities, and behavioral, emotional and developmental problems (*under development*)

The survey was developed, in part, from the following questionnaires: Horizon's Questionnaires for Children of HIV Positive Parents and Parents Living with HIV, UNICEF's Multiple Indicator Survey, the Child Survival Support Program's KPC2000+, and Demographic and Health Surveys.

Background Information

Many developing countries are hard hit by the HIV/AIDS pandemic, particularly in Africa. India and other Asian countries are also being affected. In some areas, as many as one in every 3 women of child-bearing age are infected with HIV and will succumb to AIDS, probably before their children reach adulthood. The US Census Bureau has estimated that 15.6 million children had lost their mother or both parents to AIDS by the end of 2000. More than 90% of these children are from sub-Saharan Africa.

Because so many young people are dying, the social framework that has been used for generations to care for widows, widowers, and young children is heavily stressed, and the needs of many young children and their families are not being met. Young children, especially those under 5 years of age, are particularly vulnerable to the effects of inadequate care during these early years. Poor health, malnutrition, little stimulation resulting from inadequate care can all effect the child's ability to think, learn, and function effectively. These effects are likely to have long-term consequences that are irreversible.

In response to this devastating problem, the Early Child Development Section of the World Bank has commissioned the development of this assessment tool for use by World Bank Task Managers, NGO service organizations and others in designing programs to assist in meeting some of these needs.

Current Efforts Underway

Children on the Brink, 2000, a report developed by US Agency for International Development (USAID) outlines 5 basic strategies for interventions to meet the needs of young families and their children. [This report can be viewed on the USAID website: www.usaid.gov]

1. Strengthen the capacity of families to cope with their problems.
 - Strengthen the resources of families before AIDS has undermined their capacity to support themselves through interventions such as arranging access to savings and credit mechanisms.
 - Reduce the demands on household members' labor, freeing them to undertake income-producing activities through supporting community-based child care, improving village water supply and sanitation, and enabling artisans to produce fuel-efficient stoves to reduce the time spend collecting firewood.
 - Provide home-care for HIV/AIDS patients to help the family cope with illness.
 - Encourage and support parents ability to write wills, make arrangements for care of children, and talk to their children about the future in which the parents may not be there.
2. Mobilize and strengthen community-based responses.
 - Encourage local leaders to protect the property and inheritance rights of widows and orphans.
 - Organize cooperative child care.
 - Organize orphan visitation programs and provide financial support.
 - Develop community gardens.
3. Strengthen the capacity of children and young people to meet their own needs.
 - Enable children to stay in school through changing policies regarding fees/uniforms, paying school or vocational fees, providing at least one meal a day at school, constructing school facilities or providing needed equipment in exchange for admitting vulnerable children, arranging half-day school hours to permit students to work, arranging apprenticeships with local artisans.
4. Ensure that governments protect the most vulnerable children and provide essential services.
 - Assure the political will of the government to address the impact of the AIDS/HIV epidemic.
 - Examine the adequacy of available services.
 - Provide safety nets for children and families.
5. Create an enabling environment for affected children and families.
 - Change public recognition of HIV/AIDS from "their problem" to "our problem" by providing information, challenging myths and ensuring basic legal protection.
 - Change laws to reduce the vulnerability of children and families.

Data gathered from this assessment package can help service organizations, NGOs, and others to focus their programs on areas of greatest need in their community.

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--- PLANNING THE SURVEY ---

Importance of Collecting Information Before Planning a Program

NGOs, community, and service organizations generally have limited resources, and must carefully target their programs to get the most impact for their resources expended. Gathering data from the community helps organizations make more informed decisions about program content, direction, areas of greatest need, population to be served. Without accurate information, decisions are often made on impressions or opinions, which may not really reflect the needs of the community.

Periodic surveys can also be used to monitor the impact of the program. By conducting the same survey periodically, say once a year, changes in indicators of program success can be measured. For example, if the program goals included providing training to widowed mothers for income generation, periodic surveys could be designed to measure whether there was a change in the number of widowed mothers who were engaged in income generating activities within the community. However, this survey has been designed with a sample size to accommodate only a single survey. If periodic surveys are done, then a sample size based on measuring the *change* over time would need to be done. In most cases, a larger sample size would be needed.

Ways Information Can be Collected

There are several methods to gather information needed for developing and targeting service programs. Groups may want to use several methods or just choose the method that most fits their needs and abilities. This assessment package only uses the survey methodology, but guidance on other methods may be available from some of the reports listed in the reference materials (See Appendix XII). The following three paragraphs describe the different methods for gathering information and give some guidance on when these different methods might be best used.

Focus groups are a means of gathering information through open-ended questioning of a group of people that are members of the affected population or stakeholders in the issue. The focus group method often provides in-depth information but does not produce quantitative data such as the number of families affected or a quantitative assessment of their most critical needs. The focus group method is best used in situations where the service organization has little idea of the problems facing their target population. Information from focus groups can help guide the development of a survey or other quantitative study.

Surveys are systematic interviews of either the entire population or a representative sample of the population that can be generalized to produce quantitative information about an entire population. Surveys can help assess such issues as the scope and magnitude of the problem, where geographically in the community the greatest need exists, what proportion of the population is affected, a quantitative assessment of their most critical needs, supports that already exist, and any unmet needs. Surveys assume that the organization has some idea of the problems that might face the target population and wishes to get a quantitative assessment of the problems.

Situational analyses are a process of gathering and analyzing information to guide planning and action. It involves gathering information about the problem, its consequences, household and community coping responses, and relevant policies and programs. This type of analysis is best used to bring together and gain consensus from a number of organizations, key stakeholders, government agencies, and others about how and where to direct available resources from a variety of sources.

Thus, each of these methods gives information at different levels and from different perspectives. The focus group method is best for gathering information directly from the affected persons. The survey method is best for assessing a problem from a population perspective. The situational analysis is best for developing an overall community plan that must gain the support of many different agencies.

Survey Methodology

This Tool Kit is designed to collect information using a standardized survey of households with young children in the area and population served by the organization using this kit. The designers of the Tool Kit assume that the population to be surveyed is too large to feasibly survey every household. Thus, a representative sample of households must be chosen, from which reasonable estimates can be made. The designers have also assumed that no reliable census of all households in the population exists; therefore, a sampling methodology called “cluster sampling” has been used. This type of survey methodology has been used widely in the developing world for assessing rates of immunization coverage, diarrheal disease, and other health conditions. A step-by-step process for conducting the survey using this methodology is outlined in the section below called **METHODS FOR CONDUCTING THE SURVEY**.

Staffing for the Project

- **Project Director:**
 - Skills Required: The project director needs to have good management and leadership skills, as they are responsible for supervising all staff working on the project. For large projects with many interviewer teams, additional supervisors may be needed.
 - Duties:
 - Identifies population and geographic area to be surveyed.
 - Identifies and obtains all necessary approvals.
 - Hires staff and obtains necessary resources to carry out the survey.
 - Supervises all staff on the project either directly or through subordinate supervisors.
 - Provides overall direction of the project.
 - Makes all decisions that cannot be handled by subordinate supervisors.
 - Assures overall quality and validity of the survey data.
 - Assures that survey participants are treated with dignity and sensitivity.
 - Handles any major problems arising from conduct of the survey.
 - Interprets data from survey with assistance of the Technical Consultant, if needed.
 - Uses data to design programmatic response to needs of young children identified through use of the survey.

- **Technical Consultant:** Dealing with the issues of sampling, choosing clusters, and households to be surveyed requires some technical expertise in survey design. In some cases, the project director may have these skills. If the project director does not have these skills, then a technical consultant may be needed.
 - Skills required: An individual with training in epidemiology and public health will generally have these skills and knowledge.
 - Duties: Assist the Project Director in technical areas such as
 - Defining the area to be surveyed
 - Determining whether sampling is needed
 - Determining the type of sampling needed
 - Selecting clusters to be surveyed
 - Assisting in training of field work teams
 - Data entry and interpretation
 - Program design and development

- **Trainer:** Interviewers and their supervisors will need to be trained in how to conduct the field work. The Project Director or Technical Consultant may be able to serve as Trainer.
 - Skills required: The Trainer needs to have some understanding of survey methodology and be able to follow the guidance provided in the Training Manual.
 - Duties: Carry out the training of the field work teams.
- **Interviewer Supervisors:** A day-to-day supervisor for each interview team should be identified. If only one or two interview teams are needed, then the Project Director or Technical Consultant may be able to provide this day-to-day supervision. If more than two teams are used, then other supervisors may be needed.
 - Duties and Skills required:
 - Be able to master the material in the training manual.
 - Assure that interviewers can locate households to be surveyed. This may require supervisors to go with the team to each cluster.
 - Assure that interviewers are conducting interviews and completing forms appropriately.
 - Debrief each interview team daily during the field work to address any problems arising during the day and to commend the team for good work.
- **Interviewer(s):** We recommend an interview team of two interviewers for safety measures as well as to facilitate interviews and data collection.
 - Skills required: Be able to understand basic concepts of surveying. Be able to engage individuals in the population to be surveyed.
 - Duties: With assistance from supervisor, identify households to be surveyed. Obtain permission and participation from participants. Interviews caregivers, records answers, assures completion of the cluster, follows-up on incomplete interviews, delivers completed questionnaires to data entry personnel.
- **Data Entry Person:**
 - Skills required: Some basic understanding of computers and data bases. Attention to detail and ability to enter data accurately.
 - Duties: Enters data from hard copy to computer data entry screens, saves files, assures data entry accuracy, generates analysis tables.
- **Translator(s) for survey instrument:** Two different translators are recommended, but one can be used for both translation and back translation, if personnel are limited.
 - Skills required: Good command of both languages and experience in translation. Must recognize need to assure the same meaning as English version when translating by using Appendix III.
 - Duties: Translates English version into local language, back translates from local language to English, compares with original version in English, resolves any errors in translation.
- **Other useful staff** might include drivers, clerks/logisticians, and associate supervisors to ensure safety and community acceptance.

Translation of the Survey Instrument

The importance of translating the survey instrument into the local language cannot be understated. For accuracy, the questions need to be asked the same way each time. This is especially an issue when multiple interviewers will be used. We recommend that the English version be translated into the local language by one translator, and then back-translated into English by a second translator, if possible, to verify the first translation. If only one translator is available, then he/she can do both translation and

back-translation. If questions in the back-translated version do not mean the same thing as in the original English version, adjustments in the English to local language translation need to be made. Translation into the local language assures that every interviewer asks the same questions of every household; back translation assures that the original meaning and standardization of the survey questions is maintained.

Training

Interviewers and Their Supervisors:

We recommend the use of interviewers that have had some experience in interviewing patients, families, and others. We have provided a document in Appendix III that gives an explanation of each question in the survey. This document is useful not only for training of interviewers but also in assisting in the translation and back-translation of the questionnaire.

Each interviewer needs to be thoroughly familiar with what information is being elicited by each question; the importance of standardizing how questions are asked; how to probe for answers without compromising the standardization; how to remain neutral and not suggest the “right” answer that might influence how a respondent answers; and how to keep accurate records of households asked to participate, those that participated, and reasons for refusal.

A training manual has been provided to assist in training the field work teams, including interviewers and their supervisors.

Data Entry Personnel:

We recommend the use of data entry clerks who have some knowledge of computer use and ideally, have had experience in data entry. They need to understand that accurate entry of the data is critical to the success of every survey. Thus, data entry requires a person who pays close attention to the details of the questionnaire. The Project Director or Technical Consultant should train the data entry clerk in the use of the EpiInfo 6 software. Appendix IV gives directions for using the CNA software.

Logistics Needed to Conduct the Survey:

- **Computer:** Small surveys can be analyzed by hand tallying or use of a calculator, but this can often be time consuming and subject to error. In designing this assessment package, we assumed that data entry and analysis would be conducted using a computer. The software that comes with this package is based on a non-commercial software called EpiInfo version 6. This software has been widely used in survey research. A standard analysis program is included, so no statistical expertise or research training is necessary. The user needs to be moderately computer literate and should have access to technical assistance from someone familiar with EpiInfo 6. Data entry screens are also included in the software. For those with internet access, the EPI INFO manual can be downloaded from the following website, <http://www.cdc.gov/epiinfo/EI6dnjp.htm>
- **Materials and Supplies:** Items that interviewers may need at the interview site include:
 - Mechanical scale that yields consistently accurate weight measurements
 - Metric measuring board with headpiece and footpiece
 - Maps of the area to be surveyed and any lists of households (The cluster to be surveyed and instructions on how to select households within the cluster should be included.)
 - Enough forms to complete the work plus some extras
 - Consent forms if using
 - Pens and pencils
 - Clipboards
 - Participant incentives if these are being used

- **Travel to Cluster Sites:** Once clusters have been chosen (see below), the logistics of how the interview teams will travel to these locations need to be arranged. Consider the need for meals and lodging if the team cannot complete the cluster within one day.
- **Storage of Survey Forms and Other Materials:** Although we have recommended that the survey forms not include any identifying information for the participant, survey forms and any consent forms used need to be stored in a secure place, preferably a locked filing cabinet. Staff should also know where other materials needed for the project are stored, such as blank forms, anthropologic measuring equipment, pens and pencils, etc.

Issues to Consider

- **The Use of Incentives to Families:** Many groups give a small incentive (e.g., cash, food, vouchers) to participants of a survey to both encourage their participation and to thank them for their participation. The use of incentives should be considered, taking into account the usual practices within the community. The incentive should not be so enticing that participants are coerced into participating in something that they might otherwise not consider.
- **Should identifying information such as full names and locating information be collected on the participants?** When surveys ask “sensitive” data, particularly about HIV, that participants might not want to share with others, data are often collected “anonymously”. Sensitive data refers to information that participants want to keep private. An example of this kind of information is HIV status of family members. *Anonymous* means that the survey interview does not collect information that can be used to identify the participant. In other words, one cannot identify the participant by reading the questionnaire, and information within the questionnaire cannot be linked to an individual. For the purposes of confidentiality, the use of anonymous questionnaires should be strongly considered for this survey, since it contains sensitive information. The questionnaire has been designed not to collect identifying information, once the interview is complete. Participants can be asked to sign a consent form, but this form is kept separate from the survey instrument and cannot be linked by a participant number or other identifying information.
- **What are the ethical aspects, human rights, and consent issues to be considered?** Before performing any survey, the rights of individuals participating in the survey and the community involved must be considered and respected. Many countries have established guidelines for assuring that the rights of and respect for participants are protected. The survey should adhere to these guidelines. As stated above, confidentiality of survey participants should be carefully guarded. However, in general, surveys that are conducted for the purpose of providing information for program design and development are not required to undergo specific review by an Institutional Review Board, since these surveys are not considered to be research. Feedback to the individuals, families, and communities of significant problems identified by the survey should be considered. Although a consent form signed by participants may not be required, we have included a sample consent form (see Appendix XI), if needed. The Project Director is encouraged to determine the possible ethical aspects, human rights issues, and consent issues before conducting the survey.

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--- METHODS FOR CONDUCTING THE SURVEY ---

Overview

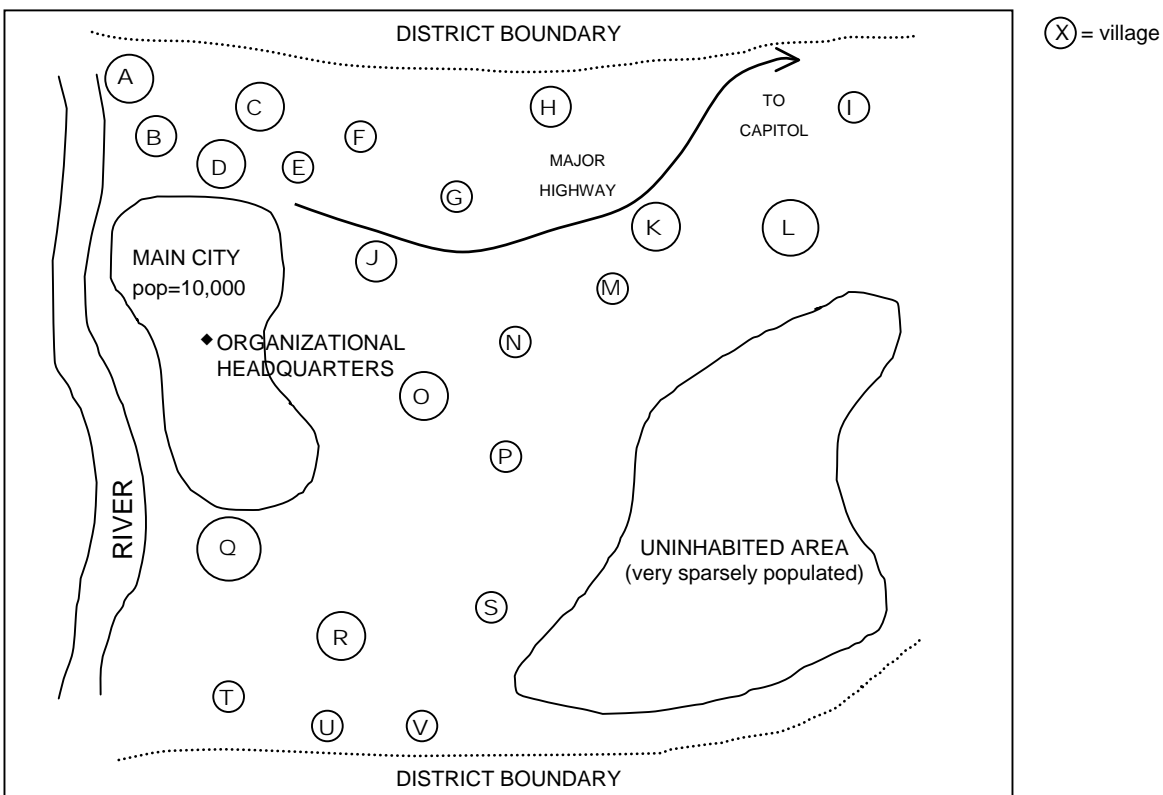
The following methodological steps will need to be carried out before the survey field work begins. The Project Director and Technical Consultant will need to carry out these steps prior to carrying out the field work. In addition, there will be a number of logistical steps as well. These are covered in the next section, “Performing the Survey—the Field Work,” as well as in the training manual. However, first you must:

1. Define the geographic bounds of the area to be surveyed;
2. Decide whether sampling is necessary;
3. If sampling is necessary, determine what type of sampling scheme to use;
4. Assuming that cluster sampling is needed (meaning that sampling is necessary and that no reliable census exists), define natural groupings of populations (neighborhoods, villages) that will serve as the “clusters” within the geographic boundaries; and
5. Select the clusters to be surveyed.

These steps are detailed below.

Defining the Area to be Surveyed

One of the first steps in assessing community needs is to define the community to be surveyed. The methodology used in this survey assumes that a service organization wishes to collect information from households with young children living in a defined geographic area. Thus, the **geographic bounds** of the area of interest will need to be well defined. This will usually represent the area served by the organization and for which the program of services for children and families will be developed. This is also sometimes called the “catchment” area. Obtaining a map or creating one that represents the geographic area to be surveyed is a good way to both define the community/area to be surveyed as well as to monitor progress in the field work. An example of a map of a hypothetical survey area is below.



Decide if Sampling is Necessary

When conducting a survey, you must first determine if it is possible to survey every household within the catchment area of the organization. If this is feasible, then no sampling is necessary—every household is surveyed.

To determine whether sampling is needed, you must know the following:

- How many households are in your catchment area?
- How many households can be interviewed in one day? To do this you must consider travel time to the site, the number of interview teams you can field, and the number of interviews that can be done in a day. We have estimated that about 5 households can be interviewed in one day with one interview team.
- How long you want the field work to take? We suggest that you try to carry out the field work (interviewing) within one month or less.
- How many interview teams you can put into the field?

For example, in one month's time (assuming 22 working days), one interview team could survey about 100 households. Thus, if your catchment population contains about 100 households, then you do not need to sample. On the other hand, if your population consists of 500 households, then you have the option of either employing 5 interview teams at once to survey every household or sampling from the 500 households.

Determine What Type of Sampling Scheme to Use

In most cases, the number of households within the catchment area of the organization will be too large to feasibly survey every household. In this case, you must pick a representative sample of households. Sampling means that only some of the households in the catchment area are picked for survey. The concept of “representative” is important and means that the sample of households interviewed must reasonably represent the entire group. To accomplish this, a *random* sample needs to be chosen. In situations where there is a complete listing of all households in the catchment area, then households can be randomly chosen by various means such as picking every fifth household or using a random numbers table (see Appendix II). In situations where there is no complete listing of households, a methodology called “cluster” sampling has been developed.

In designing this assessment package, we assumed that a reliable and accurate listing of all households in the area does not exist. In fact, this is the case in most developing country settings. The cluster sampling method has been used widely in developing countries to assess health measures such as immunization levels among children less than 2 years of age (Expanded Program on Immunizations, EPI).

Cluster Sampling

The cluster survey in this kit has been designed based on a scientific paper by Steve Bennett and colleagues, published in the World Health Statistics Quarterly, 1991; 44(3):98-106, entitled “A Simplified General Method for Cluster-Sample Surveys of Health in Developing Countries.” We recommend that you obtain a copy of this paper for your reference.

To conduct the survey using this method, you must work through the following steps:

1. Define the geographic bounds of the area to be surveyed.
2. Define natural groupings of populations (neighborhoods, villages) that will serve as the “clusters” within the geographic boundaries.
3. Determine the number of households within each cluster.
4. Select the clusters to be surveyed.
5. Select the households within each cluster to be surveyed.

6. Determine who within the household is the primary caregiver to the young children, as this person will be the respondent within each household that will be interviewed.

Steps 2 through 6 are described in detail below.

Defining the Clusters

Within the geographic area, natural groupings of populations need to be defined, such as villages, neighborhoods, districts, city blocks, or other communities, which will serve as the “**clusters**” from which samples of households will be selected. Clusters may vary in size, but each must contain enough households so that the number of eligible households within each cluster can be interviewed. In our case, we want to interview 5 households in each cluster. If your clusters are too small (with fewer than 10 households), then combine them with other neighboring clusters. We have also decided that at least 25 clusters are needed for our survey. Your list of clusters can contain far more than 25 but must contain at least 25.

Using the map that you created for defining the geographic bounds of your catchment area, identify each grouping of households that will serve as a “cluster”. For makeshift communities such as refugee camps, clusters may be defined by using a map of the area to delineate clusters. If refugee tents are organized by blocks, then these may be used to define the clusters. Again, if you have a map that identifies all households within the refugee camp, then you may either survey all households (no sampling), if feasible, or use simple random sampling as described above.

Determining the Number of Households Within Each Cluster

For each of the clusters, you must know the **total number of households**. If you do not have a listing of all the households, then the total number can be estimated from the total population. [HINT: If you know the total population and can estimate the average size of each household, divide the total population by the average size of households to calculate the number of households.]

$$\text{Total population} \div \text{Average size of households} = \text{Total number of households}$$

For example: If a village has an approximate population of 500 people, and the average size of each household is about 5 people, then there are about 100 households in this village.

Selecting the Clusters to be Surveyed

Cluster sampling involves a two-step process. First, you must select which clusters to survey. Then, within each of the selected clusters, you must select which households to survey.

To select the clusters to be surveyed, you will be using a method for sampling called *probability proportional to size*. But before you select the clusters you must know the right number of clusters to select, since you will only be surveying a sample of the clusters. This is called *sample size calculations*. It is important to determine the right number of clusters and households within those clusters so that the information you collect will accurately represent the entire population and provide the level of accuracy you wish to obtain. **For this survey we have concluded that in general, about 25 clusters of 5 households each is an appropriate sample size.** [See Appendix I for details.] This means that one interview team could complete the field work in about one month assuming 5 eligible households can be interviewed in one day. Two interview teams could complete the field work in about 2 weeks.

METHODS FOR CONDUCTING THE SURVEY

To calculate the sample size for the number of clusters we made the following assumptions:

Assumptions:

For this survey, we assumed that organizations were only interested in characteristics that were present in at least 20% of households. We assumed that characteristics that were present in fewer than 20% would probably not be considered as a need that should be addressed.

We also assumed that a precision of an estimate of prevalence of a characteristic of $\pm 10\%$ would be adequate for the purposes of program planning. For example, if the survey indicates that about 20% of households surveyed have inadequate food intake, then the organization could assume that between 10%-30% of households had inadequate food intake. This would give an estimate of how many of the households in the service area would need food supplements.

We assumed, based on our pilot study, that one interview team could survey about 5 households per day, and that there would be about 4 children per household on average.

To choose the 25 clusters, refer to the map of your geographic area and clusters within that area. There must be at least 25 clusters of at least 5 eligible households each to conduct the full survey. Since not all households will be eligible, clusters of more than 5 households are ideal. If you have fewer than 25 clusters, seek technical assistance for the best way to gather information for your population.

List the clusters and their estimated number of households. The list should include communities that are not on official lists (new settlements, refugee camps, etc.) Create a third column, called cumulative households, by adding in each number of households per community as you go down the list. Below is an example of a geographic area with 30 clusters from which you wish to pick 25. The clusters vary in number of households.

See the next page for an example of a cluster list created to facilitate the sampling.

Example

Cluster	Number of Households in the Cluster	Cumulative Number
1	6	6
2	9	15
3	35	50
4	10	60
5	13	73
6	7	80
7	25	105
8	8	113
9	7	120
10	12	132
11	6	138
12	11	149
13	6	155
14	9	164
15	10	174
16	6	180
17	9	189
18	5	194
19	10	204
20	13	217
21	5	222
22	25	247
23	8	255
24	7	262
25	12	274
26	6	280
27	11	291
28	6	297
29	9	306
30	9	315

1. To pick the 25 clusters, divide the total number of households in all of your clusters by 25. This will be your **sampling interval**.

Cumulative # households \div 25 (the number of clusters) = Sampling interval

Example: $315 \div 25 = 12.6$ or rounded to 13

Thus, 13 is our sampling interval.

2. From the random number table provided in Appendix II, choose a random number between 1 and your sampling interval; in our example the sampling interval is 13. Suppose you choose 9 as your random number. Then look to see where this number falls within your cumulative number column. In the example case, 9 falls between 6 and 15, so you would choose cluster #2.
3. To choose the second cluster, add the sampling interval (in this case, 13) to your original random number (in this case, the random number is 9, and the sum equals 22). Again, find where this number lies in the cumulative number column (in this case, 22 lies between 15 and 50, so cluster #3 would be chosen). In our example:

$$13 \quad + \quad 9 \quad = \quad 22 \text{ (Falls between 15 and 50, so we pick cluster #3)}$$
 Sampling interval + Random number = Location of second cluster

METHODS FOR CONDUCTING THE SURVEY

4. Add the sampling interval again to the number that identified the previous cluster: $22 + 13 = 35$. Look again at the cumulative number column. The number 35 lies within cluster #3 again, so you would sample cluster 3 twice.

$$13 + 22 = 35 \text{ (Lies within cluster \#3)}$$

$$\text{Sampling interval} + \text{number that identified the location of the previous cluster} = \text{Next cluster location}$$

5. Continue adding the sampling interval to the number that identified the previous cluster, and choose clusters until you have identified all 25 needed.

Now that you have chosen your clusters, you are ready to choose the households within the clusters to be surveyed.

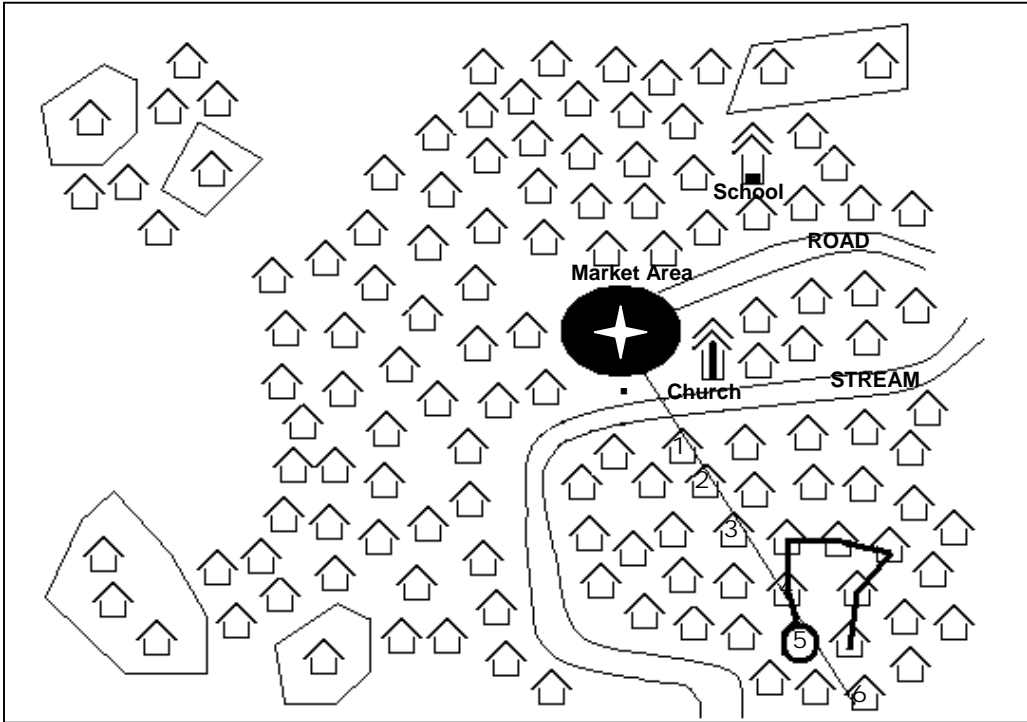
Selecting the Households within the Clusters to be Surveyed

The ideal way to select households within the clusters is by random sampling, which requires having a list of all households within the cluster. If you have such a list or can get one from community leaders or through a quick and easy mapping, then assign each household a number and then choose your 5 households using the random number table in Appendix II.

If you do not have such a list of households, then you must randomly select a starting point, which will be the first household to survey. Usually in EPI (Expanded Program on Immunizations) surveys, you would choose some central point within the cluster area (such as the market) and then choose a random direction from that point (spin a bottle on the ground and take the direction in which it points). Next, count all of the households from your starting point to the edge of the community in the most direct line, and assign each household a number. To facilitate this process, draw a simple map indicating the starting point and each house in the direct line. Number the houses. The next step is to then randomly select one of these numbers. The number you select will be your first household to be surveyed. Choose the remaining households by continuing in the direction from the central area and choosing the next closest house to the one you have just surveyed. See the map example on the next page for an illustration. In this example, you have randomly chosen household #5 as the starting point. Interview that household, if eligible. Then go to the next nearest household for the second interview. If that household is ineligible, then move to the next nearest household. Keep going in this manner until you have interviewed the required number for the cluster, in our case, this is 5 households. If the cluster only has 5 eligible households, then survey all 5.

Since the interviewers and their supervisors will need to be trained in selecting households within the cluster, this activity is covered in detail in the training manual for interviewers and supervisors.

Example of Cluster to be Surveyed

**Selecting the Households to Survey in This Example**

- Locate the central area of the cluster. In this example, it is the market.
- Spin a bottle to determine direction to take: in this example, the bottle points to the southeast.
- Proceed in a direct line from the market area, mapping and numbering households as you go along. In our example, there are 6 households from the market to the edge of the cluster.
- From the random number table, choose a random number between 1 and 6. In our example, we have chosen number 5. This is the first household to be approached.
- Proceed to the next nearest household and continue to complete the cluster. The solid line represents the households that are approached for the survey. In this case, 7 households were approached and 5 were found to be eligible and participated.

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--- PERFORMING THE SURVEY - THE FIELD WORK---

Pre-Field Work Preparation

Approvals and Permissions

Depending on the nature of the survey area, permission or approvals may be needed from government officials, community leaders, or others. To assure legitimacy and participation of individuals within the survey area, these permissions may be advisable even if they are not required. Advance notice of the survey to the residents of the survey area may also be helpful. Endorsement of the survey by community leaders may also help assure participation. If the interview teams are not familiar with the community, then local guides may be needed.

Interviewers

The number of interviewers and the time needed to conduct the survey will vary, depending on the availability of personnel and transport, travel time to the survey site(s), and how urgently the data are needed. General guidelines are as follows:

- Each interview team should be composed of 2 members, so that interviewers can check each other's work and make sure information is recorded accurately and completely.
- The interview is designed to take about 40 minutes.
- One team of interviewers can be expected to complete approximately 5 household interviews per day.
- The data collection should be completed within a month's period of time to assure uniformity of data.

Thus, with one interview team, 25 clusters could be completed within one month. Using 2 teams, data could be collected within about 2 weeks.

Training

Interviewers and their supervisors should be appropriately trained in the areas below. This tool kit contains a training curriculum. At a minimum, interviewers:

- Must understand the purpose of the survey as a whole and what information is being sought with each question. Appendix III includes a document that explains each question in detail.
- Must understand the importance of standardization of interviews. Scripts are provided to assist in standardizing the interviewer's approach to recruiting households, requesting permission to interview, and asking questions.
- Must understand the importance of the right of households to refuse to participate without verbal or physical consequence.
- Must appreciate that some sensitive information is being asked in the survey (HIV status of family members), and the importance of confidentiality.
- Must understand the importance of proper labeling of questionnaires and other record keeping.
- Must understand the importance of collecting all the information on the forms, unless the participant refuses to answer the question. Interviewers should check over the form before leaving the household to assure that the work is as complete as possible.
- Need to have a pleasant personality and be able to interact with participants appropriately.

Materials and Supplies

Before heading out to survey, interview teams need to assure that they have assembled all the appropriate materials and supplies. See "Materials and Supplies" under "Logistics Needed to Conduct the Survey" on page 8 for some recommendations.

Conducting the Survey

Interview teams should use the cluster sampling methodology described above to select households for survey. An **eligible household** is one in which there are children under the age of 8 years. If the household does not have any children of this age, then the team moves on to the next household. The front page of the survey instrument has a flow diagram that interviewers should use as a script for soliciting participation and to determine eligibility of the household. After introducing him/herself, the interviewer should follow the flow diagram. If the household is determined to be eligible but the person refuses to participate in the survey, the interviewer should list the reasons for non-participation.

For eligible households, the interview team should ask for the **primary caregiver** to the young children. This is the person living in the household who spends the most time caring for the children less than 8 years of age without being paid. Upon identifying this person and determining he or she is willing to participate, the interview is conducted. Note that a complete survey form includes several questions about the caregiver and the household and a separate module for each child under 8 in the household. Thus, for each household, interviewers will complete one **HOUSEHOLD MODULE** and as many **CHILD MODULES** as there are children under 8 years of age for whom the respondent is the primary caregiver. The interviewer must assure that the child forms contain the cluster number, household number, and child number, so that these modules can be linked to the appropriate household.

Sometimes, there may be more than one primary caregiver per household. In these cases, choose the caregiver who is available and willing to participate in the survey. If there is more than one caregiver available and willing to participate, randomly choose one of the caregivers by flipping a coin.

Upon completion of the interview, the participants should be thanked for their time and given the incentive gift if one is being used. The participants should be told how to get information about the survey upon its completion.

Upon return from the survey, the interview team must assure that completed forms are placed in the designated area for pick-up by the data entry clerk. The project director or the team supervisor should debrief the team on the day's work and assure that forms are completed and accounted for. Any difficulties encountered that prohibited completion of the cluster should be discussed and plans made for completion.

--- DATA ENTRY ---

Overview

Software, called CHILD NEEDS ASSESSMENT (CNA), has been developed for entering data from the questionnaires used in this survey, and for running a standard analysis program. Detailed instructions are given in Appendix IV and include the following:

- Installing the Software
- Installing an Icon
- Starting CNA
- Using CNA
 - Entering and Editing Data Using the ENTER Program
 - Use of the BROWSE Command
 - Use of and Interpretation of Results from CNA
 - CNA Software: Analysis

The CNA software system is based on Epi Info 6, a software program developed by the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC), Atlanta, USA.

The Epi Info 6 software is not proprietary and may be downloaded without fee at

<http://www.cdc.gov/epiinfo/EI6dnjp.htm>.

The tables generated from your survey can be saved to a disk and/or printed out on hardcopy. There will be guides within the analyses output to help interpret the information.

Issues to Consider

Assuring Accuracy of Data Entry

For research surveys, data are often entered in duplicate and compared. Any inconsistencies are examined and corrected in the final data file. These comparisons are generally done using computerized comparison analyses. No computerized comparison analyses are provided in this tool kit. However, other ways of assuring accuracy have been provided within the data entry software including edit checks for possible ranges of answers to selected questions. The project director should determine whether additional means of assuring data accuracy are needed.

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--- ANALYSIS AND GENERATION OF REPORTS ---

Interpretation of Survey Results

The survey has been designed to gather information that may be needed for program planning from the population of households with young children. A standard analysis has been developed that will give organizations the basic data they need to develop programs. The tables generated from the analysis are grouped under the following headings:

- Household Characteristics
- Living Conditions
- Supervision and Care
- HIV/AIDS
- Legal Issues and Child Rights
- Education
- Material Well-Being
- Child Health and Nutrition
- Psychosocial Well-Being
- Orphanhood
- Child Caregivers
- Child Growth

In general, the tables in each category give the frequency of basic needs of young children and their families that need to be met for children to thrive. From these tables, the project director should be able to determine the most critical needs that are not being met, and have information that will allow them to develop programs to meet these needs. Organizations may choose to address one or more of these needs, depending on the data and the available resources.

The tables on **household characteristics** describe the households in terms of size (total, adults and children) and the average income levels. These data are descriptive and may be useful in describing your population when applying for program funding.

The tables on **living conditions** provide information on the frequency of substandard housing, unsafe water source, inadequate sanitation, and poor food security. These tables provide information that can be used to determine whether these are issues that should be addressed in programs, and helps determine the scope of the problems.

The tables on **supervision and care** provide information on several characteristics of the primary caregiver, his/her knowledge of caring for children, and level of support from the community. Since research has shown that characteristics of the primary caregiver are some of the strongest predictors of child well-being, programs that support the caregiver will have a strong impact on the well-being of his or her children.

The tables on **HIV/AIDS** provide information related to stigma and concern for family members. Most programs on HIV must address issues related to stigma and discrimination if they are to be effective.

The tables on **legal issues and child rights** provide information on several critical issues related to inheritance patterns, property stealing after a death, child labor, and birth registration (often needed for school entry). Frequently, surviving spouses and children are left homeless and without their family property after the death of an adult member; orphaned children are often in the child labor force; and children may not receive schooling because of lack of birth certificate. Thus, programs serving the needs of young children need to strongly consider the legal needs of families and children.

ANALYSIS AND GENERATION OF REPORTS

Tables on **education** give information about school and preschool attendance. School attendance of the older children in the family may be a good predictor of whether the younger children will be able to attend school. Examining reasons for non attendance will allow programs to develop ways of increasing school attendance.

Tables on **material well-being** provide data on whether young children have basic needs such as a place to sleep, clothes to wear, blankets, and shoes. Programs will need to address these needs.

Tables on **child health and nutrition** are important for determining both the health status and access to health care. Poor health and nutrition are major predictors of child mortality and morbidity.

The tables on **behavioral problems** include information on problem behaviors of children that may need to be addressed.

The tables on **development** include questions about development of children less than 2 years of age.

Tables on **orphanhood** are provided to assess the frequency and number of orphaned children. Households with large burdens of orphaned children will likely be highly stressed, and these children's well-being is threatened. The well-being of the other children in orphan household may be threatened as well.

Tables on **child caregivers**, caregivers less than 18 years of age, provide information about child-headed households. These households are likely to be the most stressed and the most in need of services.

Finally, the tables on **child growth** provide information about the nutritional status of children 0-7 years of age according to their age, height and weight.

The above analyses are provided for those programs that do not have the expertise or resources to conduct their own analyses. If this expertise exists, then other analyses not included in our package can be done using the Epi Info 6 database. We have included a data dictionary that lists coding for each of the variables in the database. (See Appendix IX).

Generation of Reports

A report can be generated from the tables and accompanying text that helps in interpreting the tables. Such reports can be used to help secure funding and can be shared with other programs working in the area.

Obtaining Technical Assistance

Please contact: ECD Team
The World Bank
Education Sector, Human Development Network
G8-800
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USA
TEL: 1-202-473-0837; FAX: 1-202-522-3233
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