

III. SURVEYS FOR DESIGNING AND EVALUATING
INTEGRATED IMPROVEMENT PROJECTS FOR THE URBAN POOR:
DATA NEEDS AND SURVEY METHODS

- Revised Draft -

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A. INTRODUCTION

The Agency for International Development (A.I.D.) has embarked on an ambitious program of technical assistance to urban areas in developing countries in order to provide a catalyst to projects that will aid the urban poor. The program -- Integrated Improvement Projects for the Urban Poor (IIPUP) -- seeks to identify ways to integrate services delivery to the urban poor in developing countries and improving services delivery in terms of:

- adequacy
- equity
- effectiveness, and
- impact.

These projects will have a heavy research and development emphasis: target groups will be identified, their needs assessed, and the character of their poverty examined. IIPUP projects will then be designed to attack the causes as well as the symptoms of poverty. Intensive evaluations will determine whether individual IIPUPs, located in particular towns and cities should be replicated and extended to become part of a general urban development strategy.

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IIPUPs will be developed in a close working relationship with host countries, and a wide range of project types are contemplated. In general, it is expected that all projects will be multisectoral, combining project components from two or three sectors at first but expanding to cover several sectors in a series of phases.

This paper provides guidelines for surveys conducted for the purpose of designing and evaluating IIPUPs. The general strategy described here is to

- develop a list of data needs based on the requirements of project identification and design (PADCO, 1979) and evaluation (Kehrer et al., 1980)
- determine the extent to which these data needs can be fulfilled using secondary data and program data
- consider using survey methods to obtain data not otherwise available.

In Section 1 below we discuss the role of surveys in project design and evaluation. Section 2 is an examination of how the scope and level of aggregation of the data required will vary by the alternative sequences of IIPUP project design and idea development. We review the data needs for IIPUP, by sector, in Part B. Finally, in Part C, we describe the use of survey methods for IIPUP, beginning with a discussion of the process of determining when to rely on secondary data and when to conduct a survey (Section 1), and concluding with guidelines for the use of secondary data (Section 2) and for the conduct of field surveys (Section 3).

1. The Role of Surveys in Project Design and Project Evaluation

Secondary data on urban poverty and urban human services programs in developing countries are available in reports on censuses and sample surveys (both recurring and special), budgets, planning documents and reports on program or project operations. However, there are many occasions when secondary data are needed but not available, not appropriate, or insufficient. (Instances where no data are available are rare.) For example, it may be difficult to obtain data if the information needed is in the possession of a defunct organization, or an organization that finds it difficult to meet requests for its data.^{1/} Alternatively, the information available may not be of recent origin or it may not answer the questions that a project officer needs answered. An example of the latter would be where a project officer who is interested in a nutrition and family planning program has been able to obtain information on the number of contraceptive acceptors, but cannot obtain information on the number of discontinuers nor the reasons for discontinuation. If accurate, recent and sufficient secondary data cannot be obtained, conducting a survey may be necessary.

Survey methods range from informal interviews of officials and experts to the coding, extraction or processing of program data or to the conduct of a household field survey based on a probability design. These methods can provide data that is lacking from secondary sources for either project design or project evaluation.

^{1/} Numerous requests for information and increasing numbers of visitors to aid programs have been cited as major problems affecting program resources. See George P. Butler, "A Plan for Visitor Ethics," International Development Review/Focus: Technical Cooperation, 1978/2 Reprinted from the 1975/4 issue.

Survey methods can provide data for project design by supplementing available secondary data on (1) national urban priorities, policies, and needs (i.e., as part of a national urban poverty assessment), (2) existing institutional, management, financial, technological, and legal resources and constraints (i.e., as part of an IIPUP resource assessment), and (3) the needs of target groups and the adequacy, equity, impact, and effectiveness of urban human services delivery, (i.e., as part of target group identification and analysis).

In addition, survey methods are often essential in an intensive evaluation of a project, particularly where the evaluation focuses on the impact of the project on individual behavior and status or on the process by which the project carries out its functions. In an impact evaluation, surveys may be necessary if available secondary data do not provide an adequate baseline,^{1/} and are clearly required if the evaluation concerns outcomes that are not included in program data (e.g., attitudes of participants, behavior of individuals not participating in the program who are serving as a comparison or control groups, etc.). In a process evaluation, surveys can provide observations on the components of a project and how those components vary across and impact on different target subgroups. Surveys conducted in support of an evaluation may involve interviews with project administrative staff, service providers, the target population receiving services, populations receiving no service, service providers of related agencies, or a survey of the activities of related agencies.

^{1/} If the evaluation design is carefully integrated with project development and implementation, data collection in support of project development may serve the needs of the evaluation for baseline data as well.

In summary, surveys may be necessary in planning project development and are routinely a part of evaluation methodology. They are used:

- to gather baseline data
- to clarify project objectives and alternatives
- to aid decision-making regarding alternative project strategies
- to identify external factors that may affect project implementation, and
- for project evaluation in order to assess project outcomes.

Overall surveys are used to complement or supplement, if necessary, existing secondary data and are essential when secondary data are not available, not appropriate or insufficient.

A useful approach is to list all of the data needed for project design decisions or evaluation purposes, comparing that list with available secondary data. If critical data are missing, it may be worth the expense of conducting a survey. Because the data obtained in the survey may not be strictly comparable to available secondary data, once a decision is made to conduct a survey, it may be useful to include more than the data elements that are not available in the survey. For example, available secondary data may cover all of the people in an urban area, but the sample survey contemplated may cover only a sample of a target group that is a subgroup of the population covered by secondary data. Or available secondary data may cover only sub-sectoral performance during the first two years of the Plan, but interviews with officials and experts will provide data on performance during the third year.

In Section 2 below, we describe how the scope and nature of data required for project development varies by the sequence of project idea development. A discussion of the data required for project evaluation can be found in K. Kehrer and C. Brinkley-Carter, "Evaluating Integrated Improvement Projects for the Urban Poor: Guidelines for Evaluation Methodology".

2. Implications of Alternative Sequences of IIPUP Project Idea Development

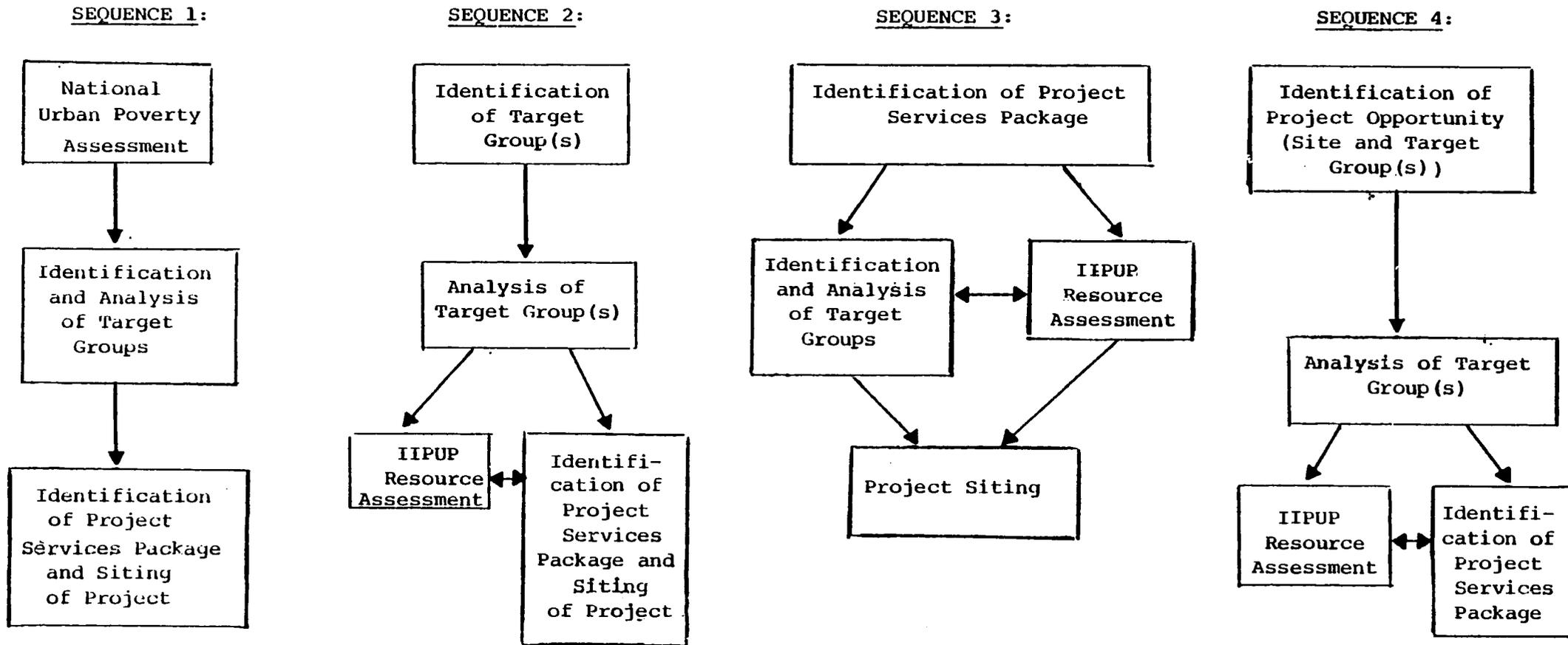
IIPUP project idea development can take several possible alternative sequences:

1. Beginning with a national urban poverty assessment, moving to identification and analysis of target groups and then to project identification (the first three steps of the ^{1/}IIPUP process as outlined in the IIPUP project paper).
2. Beginning with identification of target groups, moving to an IIPUP resource assessment and to project identification.
3. Beginning with an idea about the usefulness of combining some specific services into an integrated services package, and then proceeding to identify and analyze the target groups, an IIPUP resource assessment, and specific siting of the project.
4. Beginning with a specific project opportunity, as in Panama, moving to identify the specific target groups and to an IIPUP resource assessment, and then identifying the project's services package.

Thus national urban poverty assessments, IIPUP resources assessments, and the identification and analysis of target groups are building blocks in project development (see Figure 1).^{1/}

^{1/}National urban poverty assessments were called "national surveys" in the project paper. The term "national urban poverty assessment" may be less confusing, because it does not connote interviewing of populations, and because the work envisaged in these surveys or assessments is secondary data collection and analysis. Where these assessments are not national in scope but are focussed on particular regions, cities, target groups, or particular sectors, we have called them IIPUP resource assessments.

Figure 1: Alternative Sequences of IIPUP Project Idea Development



Sequence 1 has been initiated by the AID Mission in Honduras. In this sequence, the project idea development proceeds from a national assessment of the urban poverty problems to identification of potential target groups (e.g., chronically marginal households, single migrants, beachheading households, female-headed households, and consolidating households).^{1/} The symptoms and causes of the poverty of these target groups are analyzed, and a service package is developed to attack some of these symptoms and causes.^{2/} The final stage of the idea development consists of the siting of the project (e.g., in a particular barrio in the capital city).

In sequence 2, project idea development begins with the identification of target groups, for example:

- recent beachheading families in cities who are living as squatters;
- undernourished children in ethnic inner city families;
- unemployed secondary high school graduates in the capital city and pregnant women without health care in slum areas and in neighboring towns.

^{1/}Planning and Development Collaborative International. Integrated Improvement Program for the Urban Poor (IIPUP): Project Identification and Design, Washington, D.C., November 1979: 4-8.

^{2/}At this stage, it may be useful to consult PADCO's Guidelines for Formulating Projects to Benefit the Urban Poor. PADCO's Guidelines includes a detailed compendium of project opportunities in six important sectors, listing project elements, project purposes, target groups likely to be benefited, and potential impacts (both benefits and harmful impacts). If the project opportunity is covered by PADCO's Guidelines, one can look through the Guidelines to find the types of projects and their impacts that can benefit the selected target groups. This process would be more efficient if a cross index (indexing target groups and referencing the projects relevant to them) were available. PADCO is developing such a cross index as part of their current work on IIPUP project identification.

Analysis of the target groups then proceeds, in order to determine the causes as well as the symptoms of the poverty of the target groups, to examine the adequacy, equity, impact and efficiency of services delivery to those groups, and the ways in which services delivery can be augmented or altered to affect the causes as well as the symptoms of poverty. (Again, PADCO's Guidelines can be used in project development at this stage, as described in Sequence 1.) To the extent that the target group is so large and dispersed and the needs so great that available resources cannot support a project that would reach them all, this step includes a narrowing down of the target group to specific sites for an IIPUP project. As the nature of the potential IIPUP services package emerges, an IIPUP resource assessment is undertaken to determine the managerial, financial, legal and technical resources available, and the support and constraints for the proposed IIPUP project, focusing on the sectors in the proposed IIPUP project.

Sequence 3 begins with the identification of a potential services package expected to address the causes as well as the symptoms of poverty.

Examples would include:

- comprehensive health centers as part of the development of new housing projects;
- using child care centers for a nutrition supplement program;
- training unemployed secondary graduates in prenatal care and the development of mobile prenatal clinics;

Given this initial idea, IIPUP project idea development proceeds simultaneously to identification and analysis of target groups and an IIPUP resource assessment. The IIPUP resource assessment focuses on the sectors in the proposed services package, and the work on target groups focuses on identifying the groups who

would benefit from the services package. (At this stage, if the proposed project is covered, PADCO's Guidelines can be used directly to identify target groups by consulting the detailed tables in Vol. II, Part IV.) Project siting then can proceed as in Sequence 1 and 2.

In Sequence 4, a particular project opportunity is identified at the outset, including the specific target group(s) and site(s). Here for example, a particular housing or water and sewer project defines the target group(s) as well as the specific site(s) for the project. Project identification proceeds by analyzing the causes and symptoms of poverty among the target group(s), and examining the existing services delivery system that serves them. If the project under consideration were covered by PADCO's Guidelines, the latter can be useful in identifying potential project elements to combine with the existing project (say in a type A IIPUP project), using the cross index described in Sequence 1. As in Sequence 2, as the outlines of the services package emerge, an IIPUP resource assessment is undertaken to determine how the project meshes with host country priorities and to examine the legal and management infrastructure that will assist or constrain the project.

In Table 1 we indicate how the objectives of the IIPUP resource assessment and the target group study change according to the sequence of IIPUP project idea development. Similarly, Table 2 indicates how the data needs for each task vary by sequence of project development. Note that, in Sequence 1, the IIPUP resource assessment is national in scope, and is called a national urban poverty assessment.

TABLE 1: TASK OBJECTIVES DEPEND UPON PROJECT SEQUENCE

<p>SEQUENCE 1: National Urban Poverty Assessment Identification of Target Groups → Projects Identification</p>	<p>SEQUENCE 2: Identification of Target Groups → Project Identification and IIPUP Resource Assessment</p>	<p>SEQUENCE 3: Project Package Identification → Identification of Target Groups and IIPUP Resource Assessment</p>	<p>SEQUENCE 4: Project Opportunity → Analysis of Target Groups → IIPUP Resource Assessment and Services Package</p>
<p>Determine and evaluate national priorities, policies and plans affecting urban services delivery.</p> <p>Examine government structure, interagency cooperation, coordination of social service agencies.</p> <p>IIPUP RESOURCE ASSESSMENTS</p> <p>Study legal framework and financial and managerial resources in all human services sectors.</p> <p>Analyze level and distribution of social services to:</p> <ul style="list-style-type: none"> ● determine adequacy ● identify underserved groups (equity) ● examine effectiveness (impact and efficiency) <p>Identify potential target groups and project service areas at the national level.</p>	<p>Determine and evaluate national priorities, policies, and plans affecting target group(s) that have been selected.</p> <p>Examine structure, cooperation, and coordination of agencies that serve target groups that have been selected.</p> <p>As project package emerges, narrow focus to relevant sectors, and determine legal framework and financial and managerial resources at national and regional level that will constrain project.</p>	<p>Determine and evaluate national priorities, policies, and plans in the services areas selected.</p> <p>Examine structure, cooperation, and coordination of agencies delivering services selected to determine extent of integration at the national level.</p> <p>Study the legal framework and financial and managerial resources in sectors selected to determine constraints on projects.</p> <p>Analyze level and distribution of services selected in order to:</p> <ul style="list-style-type: none"> ● determine adequacy ● identify underserved groups ● examine effectiveness (impact and efficiency) <p>Identify potential target groups that would benefit from proposed integrated service package.</p>	<p>Determine and evaluate national priorities, policies, and plans affecting target group(s) that have been selected.</p> <p>Examine structure, cooperation, and coordination of agencies with programs that serve target group(s) that have been selected.</p> <p>As project package emerges, narrow focus to relevant sectors, and determine legal framework and financial and managerial resources at national and regional level that will constrain project.</p>

TABLE 1: Task Objectives Depend Upon Project Sequence (continued)

	SEQUENCE 1: National Urban Poverty Assessment → Identification of Target Groups → Projects Identification	SEQUENCE 2: Identification of Target Groups → Project Identification and IIPUP Resource Assessment	SEQUENCE 3: Project Package Identification → Identification of Target Groups and IIPUP Resource Assessment	SEQUENCE 4: Project Opportunity → Analysis of Target Groups → IIPUP Resource Assessment and Services Package
IDENTIFYING AND ANALYZING TARGET GROUPS	<p>Intensive examination of potential target groups identified in national assessment focusing at regional or local level, to choose specific project services package and site(s).</p> <p>Identify the causes as well as the symptoms of poverty of the target groups being considered.</p> <p>Analyze level and distribution of social services delivery:</p> <ul style="list-style-type: none"> Analyze unmet service needs of potential target groups. Determine inequities in service delivery to these groups. Examine effectiveness of delivery of specific services by sector to these groups, both in terms of impact (do services have a beneficial impact on individuals needs?) and efficiency (are services being delivered more expensively than they could be?) <p>Identify situations (target groups, services package, and site) where services integration can improve adequacy, equity, impact and efficiency of services delivery, and where services package will impact causes as well as symptoms of poverty.</p>	<p>Examination of the target group(s) selected in order to determine services package.</p> <p>Identify the causes as well as the symptoms of the poverty of the target groups selected.</p> <p>Analyze level and distribution of social services delivery to target group(s) that have been selected in order to:</p> <ul style="list-style-type: none"> determine adequacy and unmet needs. compare services delivery to chosen target group(s) with others (equity). examine effectiveness (impact and efficiency) <p>Identify situations (services package and site) where services integration can improve adequacy, equity, impact and efficiency of services delivery to selected target groups, and where the services package will impact causes as well as symptoms of poverty.</p>	<p>Intensive examination of potential target groups identified in national assessments and PAICO Guidelines, focusing at regional or local levels to choose target group(s) and specific site(s).</p> <p>Identify the causes as well as the symptoms of poverty of the target groups being considered.</p> <p>Compare potential target groups with respect to:</p> <ul style="list-style-type: none"> unmet service needs in particular sectors covered by service package selected. equity in delivery of services in sectors covered by chosen service package. effectiveness of delivery of services in sectors covered by chosen service package in terms of impact and efficiency. <p>Identify situations (target group and site) where services integration can improve adequacy, equity, impact and efficiency of services delivery, and where the services package already selected will have impacts on the causes as well as the symptoms of poverty.</p>	<p>Examination of the target group selected in order to determine services package.</p> <p>Identify the causes as well as the symptoms of poverty of the target groups selected.</p> <p>Analyze level and distribution of social services delivery to target group(s) that have been selected in order to:</p> <ul style="list-style-type: none"> determine adequacy and unmet needs. compare services delivery to chosen target group(s) with others (equity). examine effectiveness (impact and efficiency). <p>Identify situations (services package and site) where services integration can improve adequacy, equity, impact and efficiency of services delivery and where the services package will have impacts on the causes as well as the symptoms of poverty.</p>

TABLE 2: DATA NEEDS DEPEND UPON PROJECT SEQUENCE

<p>SEQUENCE 1: National Urban Poverty Assessment Identification of Target Groups → Projects Identification</p>	<p>SEQUENCE 2: Identification of Target Groups → Project Identification and IIPUP Resource Assessment</p>	<p>SEQUENCE 3: Project Package Identification → Identification of Target Groups and IIPUP Resource Assessment</p>	<p>SEQUENCE 4: Project Opportunity → Analysis of Target Groups → IIPUP Resource Assessment and Services Package</p>
<p>Collect national data pertaining to social services sectors:</p> <ul style="list-style-type: none"> ● National priorities, policies and plans affecting urban services delivery to potential target groups. ● Government structure, inter-agency cooperation, coordination, of social service agencies. ● Delivery of social services by sector in terms of adequacy, equity, impact and effectiveness. ● National services expenditures by sector. ● Economic and tax structure information. ● legal structure of social services sectors. ● Managerial and technical capabilities in social services sectors. <p>Collect statistics identifying potential target groups:</p> <ul style="list-style-type: none"> ● population trends ● income distribution ● employment data ● consumption data and unmet service needs. <p>Supplement national data with interviews of national officials and experts about social services delivery.</p>	<p>Collect national data pertaining to social services needs of target group(s) selected:</p> <ul style="list-style-type: none"> ● National priorities, policies and plans affecting urban services delivery to selected target group(s). ● Government structure, inter-agency cooperation, coordination of social service agencies concerned with selected target group(s). ● Delivery of social services by sector in terms of adequacy, equity, impact and effectiveness of services delivery to selected target group(s). ● National services expenditures by sector to selected target group(s). ● Effect of economic and tax structure on selected target group(s). ● Effect of legal structure of social services sectors on target groups selected. ● Effect of managerial and technical capabilities on target group(s) selected. <p>As services package emerges, obtain above data on more detailed basis for relevant sectors.</p> <p>Supplement national data with interviews of national officials and experts about social services delivery to selected target group(s).</p>	<p>Collect national data pertaining to service package selected:</p> <ul style="list-style-type: none"> ● National priorities, policies, plans affecting delivery of selected services to potential target groups. ● Government structure, inter-agency cooperation, coordination of services in selected agencies. ● Delivery of services selected to potential target groups in terms of adequacy, equity, impact and effectiveness. ● National expenditures for services in package selected. ● Effect of economic and tax structure on services in package selected. ● Effect of legal structure of services package selected on social services delivery. ● Managerial and technical capabilities of social services sectors selected. <p>As target groups emerge, obtain above data in a more detailed basis for target group(s).</p> <p>Data identifying potential target groups:</p> <ul style="list-style-type: none"> ● population trends ● income distribution ● employment data ● consumption data and unmet service needs. <p>Supplement national data with interviews of national officials and experts about social services delivery to selected target group(s).</p>	<p>Collect national data pertaining to social services needs of target group(s) selected:</p> <ul style="list-style-type: none"> ● National priorities, policies and plans affecting urban services delivery to selected target group(s). ● Government structure, inter-agency cooperation, coordination of social service agencies concerned with selected target group(s). ● Delivery of social services by sector in terms of adequacy, equity, impact and effectiveness of services delivery to selected target group(s). ● National services expenditures by sector to selected target group(s). ● Effect of economic and tax structure on selected target group(s). ● Effect of legal structure on target groups selected. ● Effect of managerial and technical capabilities on target groups selected. <p>As services package emerges obtain above data on a more detailed basis for relevant sectors.</p> <p>Supplement national data with interviews of national officials and experts about social services delivery to selected target group(s).</p>

IIPUP RESOURCE ASSESSMENTS

TABLE 2: Data Needs Depend Upon Project Sequence (continued):

<p><u>SEQUENCE 1:</u> National Urban Poverty Assessment → Identification of Target Groups → Projects Identification</p>	<p><u>SEQUENCE 2:</u> Identification of Target Groups → Project Identification and IIPUP Resource Assessment</p>	<p><u>SEQUENCE 3:</u> Project Package Identification → Identification of Target Groups and IIPUP Resource Assessment</p>	<p><u>SEQUENCE 4:</u> Project Opportunity → Analysis of Target Groups → IIPUP Resource Assessment and Services Package</p>
<p style="text-align: center;">IDENTIFYING AND ANALYZING TARGET GROUPS</p> <p>Collect regional and local data on potential target groups:</p> <ul style="list-style-type: none"> ● Services delivery to potential target groups: <ul style="list-style-type: none"> - unmet needs - equitable distribution - impact Existing services delivery systems: <ul style="list-style-type: none"> - administrative efficiency - integration, coordination, cooperation - management and financial resources <p>Collect data on target groups that permit study of the causes as well as symptoms of poverty:</p> <ul style="list-style-type: none"> - income - employment and productivity - household size and composition - education and training - health and nutrition - water supply and sanitation - housing - transportation - attitudes and opinions <p>Supplement secondary data with interviews of officials and experts, surveys of potential target groups, and studies of local services delivery. (Data to be used in selecting target groups, identifying projects, and as baseline information for evaluation.)</p>	<p>Collect regional and local data on selected target group(s):</p> <ul style="list-style-type: none"> ● Services delivery to selected target group(s): <ul style="list-style-type: none"> - unmet needs - equitable distribution - impact ● Existing services delivery systems to selected target group(s): <ul style="list-style-type: none"> - administrative efficiency - integration, coordination, cooperation - management and financial resources <p>Collect data on target group(s) that permit study of the causes as well as symptoms of poverty:</p> <ul style="list-style-type: none"> - income - employment and productivity - household size and composition - education and training - health and nutrition - water supply and sanitation - housing - transportation - attitudes and opinions <p>Supplement secondary data with interviews of officials and experts, surveys of target group(s) and studies of local services delivery to selected target group(s). (Data to be used in identifying projects, and as baseline information for evaluation.)</p>	<p>Collect regional and local data on services in package selected:</p> <ul style="list-style-type: none"> ● Services delivery to potential target groups: <ul style="list-style-type: none"> - unmet needs - equitable distribution - impact ● Existing service delivery systems to potential target groups: <ul style="list-style-type: none"> - administrative efficiency - integration, coordination, cooperation - management and financial resources <p>As target groups emerge, collect data that permit study of the causes as well as the symptoms of their poverty:</p> <ul style="list-style-type: none"> - income - employment and productivity - household size and composition - education and training - health and nutrition - water supply and sanitation - housing - transportation - attitudes and opinions <p>Supplement secondary data with interviews of officials and experts, surveys of potential target groups, and studies of local service delivery of services in package selected. (Data to be used in selecting target group(s) and as baseline information of evaluation.)</p>	<p>Collect <u>site</u> data on</p> <ul style="list-style-type: none"> ● Services delivery to selected target groups at the site: <ul style="list-style-type: none"> - unmet needs - equitable distribution - impact ● Existing services delivery systems at the site: <ul style="list-style-type: none"> - administrative efficiency - integration, coordination, cooperation - management and financial resources <p>Collect data on target group(s) at the site that permit study of the causes as well as symptoms of poverty:</p> <ul style="list-style-type: none"> - income - employment and productivity - household size and composition - education and training - health and nutrition - water supply and sanitation - housing - transportation - attitudes and opinions <p>Supplement secondary data with interviews of officials and experts, surveys of target group(s) and studies of site services delivery to selected target group(s). (Data to be used in identifying projects services package and as baseline information for evaluation.)</p>

B. DATA NEEDS

It is apparent that at almost every step of the development of integrated projects to aid the urban poor, information and data are required in order to make informed decisions as to focus, scope, and project selection. In addition, data are also needed for project evaluation (see K. Kehrer and C. Brinkley-Carter, 1980). This section provides a list of types of data that may be needed, with brief explanations of why each type of data may be needed.

Some of the information and data may be readily available from government or other sources. Other data may have to be specially researched, by direct observation or surveys of various scopes, types, and degree of precision. Methods by which information and data can be obtained will be discussed in Section C.

The purpose of the data needs list is to serve as an aid to project officers in planning what information they will need in order to make each successive series of decisions in program development, project design, and project evaluation. For convenience, the data needs are organized into the following categories:

DEMOGRAPHIC CHARACTERISTICS

- Demographic Characteristics
- Social Characteristics

ECONOMIC CHARACTERISTICS

- Income, Net Worth, and Expenditures
- Personal Credit

HOUSING

HEALTH AND WELFARE

- Food and Nutrition
- Water
- Health and Sanitation
- Infant and Child Health
- Family Planning

LABOR AND EDUCATION

- Employment
- Vocational Skills and Training
- Education

TRANSPORTATION AND COMMUNICATIONS

- Transportation
- Communications

In addition to this sectoral orientation, the data needs are further disaggregated into data on (1) characteristics, needs and behavior of populations and subgroups, and (2) cultural values and beliefs, knowledge, practices, (attitudes and opinions) of populations and subgroups, and (3) institutions.

If it has already been determined that a project will focus on particular sectors, such as health services and education, particular attention should be paid to those parts of the list. However, even if a particular sector has already been selected, data will still undoubtedly be needed on the demographic, economic, and social characteristics of the target population. Also, other parts of the checklist should be reviewed, because of the strong inter-relationships among the various aspects of the pattern of poverty.

One way this list of data needs can help in selecting data needed for project design or evaluation is to use the list in conjunction with Part IV of Volume II of PADCO's Guidelines for Formulating Projects to Benefit the Urban Poor in Developing Countries. In selecting data needed for project design, the following steps would be useful:

1. If potential target groups are known, use PADCO's cross index of target groups and potential projects, discussed above in Section A2, to find potential projects in PADCO's Guidelines. If potential services packages are known, look up those projects directly in PADCO's Guidelines.
2. Draw up a list of project elements, intermediate purposes, and potential benefits and disbenefits from the list in PADCO's Guidelines.
3. Determine the sectors those project elements and potential impacts are in, and consult the list of data needs for sectors, drawing up a list of data needs.
4. Supplement this list with important information from the data needs sectors in social, demographic, and economic characteristics, keeping in mind the questions about differences in subgroups you want to answer.

5. Use that list to draw up two new lists: (1) data needed for project design (selection of target groups, services packages, and sites) and (2) baseline data for subsequent evaluation. Note that many items may appear on both lists.
6. Review these lists for items left out, identifying any unique aspects of the host country that should be taken into account in project design - important constraints, changing policies and priorities, etc.
7. Review these lists for items that should be excluded in the host country context -- sensitive areas, items that will be difficult to measure, etc.

A similar series of steps would be useful in determining data needed for project evaluation:

1. Look up the project in the PADCO Guidelines and draw up a list of potential important impacts from the lists of intermediate purposes, benefits, and disbenefits.
2. Determine which sectors those impacts are in, and consult the list of data needs for those sectors, drawing up a list of data needs.
3. Supplement that list with important information from the data needs sections on social, demographic, and economic characteristics, keeping in mind the questions about differences among subgroups you want to answer.
4. Review the list for items left out, taking into account any unique aspects of the IIPUP project and any important information that is relevant to project evaluation in the context of the host country -- important constraints, intervening factors, etc.
5. Review the list for items that will not be important or are not feasible in the host country context -- sensitive areas, potential impact areas that are not expected to vary to any significant extent, impacts that are impossible to measure, etc.

These suggested steps will help assure that the multisector nature of IIPUP projects are taken into account in determining data needs. For instance, if a project officer is concerned about inadequate health care facilities for the residents of an urban slum area, it might well be important to have information on transportation facilities that, if augmented, might make it possible for the slum residents to reach existing health care facilities located somewhere else in the city.

The scope of the data required depends on the sequence of project idea development, as discussed in Part A. If particular target groups have not yet been identified, the data may have to be national in scope. If project idea development has proceeded to the point that specific target groups or localities have been selected, the data needs focus on those groups or localities.

The list is intended to include most of the types of data that may be needed for a variety of projects. However, we should reiterate that the list is not exhaustive. Each country and poverty situation has its own unique economic and cultural factors and problems, some of which may not have been fully anticipated in the preparation of this list. The project officer using this checklist should therefore consider possible important additional data categories and needs resulting from the situation in the host country.^{1/}

^{1/} A supplementary list of data needs can be found in E. Muller and D. Freedman, Standard Package of Demographic and Economic Questions, Population Studies Center, University of Michigan, 1976.

For project evaluation purposes, it is important that the data selected are those items that can best measure the most significant impacts. The following list of criteria, adapted from Appendix B of the draft AID Handbook on Evaluation (12/1/79 draft, p. 167), provide a useful starting point for reviewing data needs for evaluation:

- Comprehensiveness and Coverage. Data selected should be sufficiently comprehensive to illuminate all significant impacts.
- Validity. Each indicator should accurately reflect variations in the quantity, quality, intensity, etc. of the change.
- Objective Verifiability. The indicator should be unambiguous and incontestable, i.e., it will receive the same interpretation by two or more observers.
- Time. Indicators should be able to reflect the appropriate time dimensions of the change.
- Corroboration. A limited amount of redundancy in indicators can serve to corroborate the measurement of change. Redundancy is insurance against the effects of unforeseen variables and misleading signals in the measurement process.
- Accessibility. Data must be obtainable easily or the indicator is not useful.

The data needs described here are at the general conceptual level. In each country it will be necessary to further develop these concepts in the context of the host country's culture before they can be meaningfully included in a survey.

DEMOGRAPHIC AND SOCIAL CHARACTERISTICS

<u>DATA NEEDED</u>	<u>USE</u>
<u>DEMOGRAPHIC CHARACTERISTICS</u>	
<u>Characteristics of individuals in population, subgroups, target groups:</u>	Information on the basic composition of the population and its subgroups, and of households in the population and its subgroups, is essential to developing measurements of needs and resources, and the number of people who would be potential users or beneficiaries of IIPUP programs. Certain of these data (such as the ratio of the sexes) are also important in the categorization of people into the target groups such as:
Sex	
Age	
Marital status	
<u>Characteristics of households and families in population, subgroups, target groups:</u>	
Adults and children in immediate household:	<ul style="list-style-type: none">● Chronically marginal households● Single migrants● Beachheading households● Households renting by choice● Consolidating households● Female-headed households
<ul style="list-style-type: none">● number● sex of each● age of each● relationship of each● economic dependency of each	
Adults and children in immediate family but living elsewhere (e.g. in home village)	
<ul style="list-style-type: none">● number● sex of each● age of each● relationship of each● economic dependency of each● distance of place of residence	
<u>Values, beliefs, and attitudes of population, subgroups, target groups:</u>	Some IIPUP programs may directly or indirectly affect household composition. It may therefore be necessary to have information on people's attitudes and desires with regard to household composition.
Attitudes regarding household composition, present and possible future	

DEMOGRAPHIC AND SOCIAL CHARACTERISTICS

<u>DATA NEEDED</u>	<u>USE</u>
<u>SOCIAL CHARACTERISTICS</u>	
Characteristics and behavior of population, subgroups, target groups: <hr/>	Various societal groups have different mores and cultural patterns that affect the forms poverty takes, and affect the potential impact and value of various kinds of programs to combat poverty. It is therefore necessary to determine to which groups people belong.
Ethnic group Religion Primary language or dialect Social class or caste	
Attitudes of population, subgroups, target groups: <hr/>	Programs to aid the poor can succeed or fail depending on the attitudes and responses of the intended beneficiaries. In addition, these attitudes may condition program participation and involvement in project design and redesign. Information on relevant attitudes is therefore necessary.
Mores and customs of the group Self-esteem Aspirations Hopes for the future <ul style="list-style-type: none">● for self● for offspring Trust in government Trust in charitable services Social and political integration Desire for participation in community decision-making	

ECONOMIC CHARACTERISTICS

<u>DATA NEEDED</u>	<u>USE</u>
<u>INCOME, NET WORTH, AND EXPENDITURES</u>	
Characteristics and behavior of population, subgroups, target groups:	Measurement of individual and household or family income, savings, property and debts, are needed in order to determine who are poor and how poor they are: the degree of their ability to pay for needed goods and services.
Individual income: <ul style="list-style-type: none">● earnings● transfer income*● other	
Household or family income: <ul style="list-style-type: none">● earnings● transfer income*● other	
Savings/Capital: <ul style="list-style-type: none">● money● property● other	
Debts: <ul style="list-style-type: none">● amount● type	
Percent of income spent on: <ul style="list-style-type: none">● food and water● housing● fuel for cooking and heating● clothing● transportation● health services● other necessities	It is necessary to know how income is spent in order to determine whether and how a particular level of income is insufficient for basic needs.
Percent of income paid out in the form of taxes on income, purchases, and property owned	
Percent of income sent to immediate family members living elsewhere (e.g. home village)	Information on income sent to family members elsewhere can also help in the categorization of people into the five target groups.

*Welfare payments, food disbursements, rent subsidies etc.

ECONOMIC CHARACTERISTICS

DATA NEEDED

USE

INCOME, NET WORTH AND EXPENDITURES (Continued)

Institutions:

National and local government:

Laws and regulations regarding taxation of income, savings, property, ownership, and financing

- equity of laws and regulations
- manner of enforcement
- degree/consistency of enforcement
- equity of enforcement

Programs developed to alleviate poverty may need to address the national and local regulations regarding home ownership, land tenure, rental property, home financing, credit, and the tax structure if they substantially affect the resources of the poor to pay for needed goods and services.

ECONOMIC CHARACTERISTICS

<u>DATA NEEDED</u>	<u>USE</u>
<u>PERSONAL CREDIT</u>	
Characteristics and behavior of <u>population, subgroups, target groups:</u>	Since credit is an important financial resource, or potential resource, for people trying to escape poverty, it is important to have information on people's ability to obtain, and their use of, personal credit. This information can also assist in categorizing people into the five target groups.
Use of personal credit: <ul style="list-style-type: none">● purpose/type● amount● length of loan● source● cost	
<u>Attitudes of population, subgroups, target groups:</u>	It will be important to know whether there are any prevalent attitudes that may create barriers to people's use of credit where available.
Attitudes toward the use of personal credit	
Attitudes toward institutions and services providing credit	
<u>Institutions:</u>	Information on credit-providing institutions will be important in determining the potential involvement of those institutions in IIPUP programs to increase credit availability to the urban poor.
Institutions or services providing personal credit: <ul style="list-style-type: none">● how organized and financed● availability/accessibility● methods of delivery● efficiency of delivery● equity of delivery● impact	
National and local government: <ul style="list-style-type: none">● Laws and regulations regarding credit and the institutions and services providing credit● Plans and pending legislation	Information with regard to laws and regulations that can affect the availability of credit will be particularly important if IIPUP programs are aimed at increasing credit availability

HOUSING

DATA NEEDED

HOUSING

Characteristics of housing for population subgroups and/or target groups:

Type of housing unit:

- Conventional - home, apartment, flat
- Mobile - trailer, boat, tent
- Improvised - makeshift structures
- Group quarters - room, bed

Relationship with housing unit:

- own
- rent
- squat

Source of housing:

- built (or improvised) by resident
- private enterprise
- government

Adequacy of housing:

- space, privacy
- protection from the elements
- heat, ventilation
- running water
- food preparation and storage facilities
- toilet and washing facilities
- sewage facilities

Housing materials:

- type
- degree of permanence

Safety of structure and location:

- fire
- natural disasters (flood, storms, earthquakes)
- crime

Attitudes of population, subgroups, target groups:

Degree of satisfaction with housing

Housing desires and preferences:

- location
- type

Security and safety of dwellings.

USE

The characteristics, permanency, and adequacy of the housing of individuals and families are important measures of degree of poverty, and can help to categorize people into target groups. This information is also needed in the development of programs designed to upgrade housing.

People's attitudes and desires regarding types, locations, and security of housing will be important to the design of housing-related programs that will be accepted by the people for whom they are intended.

HOUSING

DATA NEEDED

USE

HOUSING (Continued)

Institutions:

Institutions providing mortgages:

- how organized and financed
- availability/accessibility
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact

Information about existing institutions providing mortgages will be important, especially in order to assess their potential role in providing mortgage availability.

Institutions providing for public safety:

Police and other security services:

- how organized and financed
- availability/accessibility
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact

Fire services:

- how organized and financed
- availability/accessibility
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact

Disaster services relating to floods and severe storms:

- how organized and financed
- availability/accessibility
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact

National and local government:

Policies, practices, laws and regulations regarding housing, safety, zoning, mortgages, etc.

Knowledge of the legal and governmental aspects of housing and security is necessary in the design of programs related to housing.

National housing plans and pending legislation.

HEALTH AND WELFARE

<u>DATA NEEDED</u>	<u>USE</u>
<u>FOOD AND NUTRITION</u>	
For national population, <u>subgroups, target groups:</u>	It is necessary to have information on food consumption, nutrition, and supplies, in order to determine needs and design programs to improve nutrition and alleviate hunger.
Food consumption: <ul style="list-style-type: none">● quantity● nutritional adequacy● wholesomeness, safety● seasonal and weather factors	
Food consumption in relation to special needs of: <ul style="list-style-type: none">● pregnant women● nursing mothers● infants● growing children● the elderly● the sick and disabled	
Food preparation and storage methods and equipment	
Sources of food: <ul style="list-style-type: none">● home raised● purchased● other	
<u>Knowledge and attitudes of population, subgroups, target groups:</u>	Lack of knowledge regarding nutrition and food sanitation can contribute to malnutrition and health problems; such knowledge can sometimes serve to improve the welfare of the poor without any change in the food supply. It is therefore important to have information on such knowledge.
Knowledge of nutrition, sources of nutritious foods, preparation methods that preserve nutritious value	
Knowledge of sanitary methods of preparing and storing foods	
Attitudes and preferences with regard to: <ul style="list-style-type: none">● types of food● preparation methods● storage of food● sources of food	In order to achieve acceptance, programs that improve food supplies will have to take customs and preferences into consideration.

HEALTH AND WELFARE

<u>DATA NEEDED</u>	<u>USE</u>
<u>FOOD AND NUTRITION (Continued)</u>	
<u>Institutions:</u>	
Markets and other institutions providing food: <ul style="list-style-type: none">● how organized and financed● availability/accessibility● methods of delivery● efficiency of delivery● equity of delivery● impact	Information about existing stores and other institutions providing food will be important, especially in order to assess their potential role in improving food supplies.
Institutions and other services providing information and education regarding food and nutrition: <ul style="list-style-type: none">● how organized and financed● availability/accessibility● methods of delivery● efficiency of delivery● equity of delivery● impact	If there are any institutions or services providing information or education on food and nutrition information on them will be important -- especially in order to assess their potential role in any kind of educational program concerning food and nutrition.
National and local government: Policies, informal practices, priorities, laws and regulations regarding food and its sources and suppliers	If there are governmental policies, laws or regulations relating to food or its sources and suppliers, it will be important to take them into consideration in designing programs relating to food.

HEALTH AND WELFARE

DATA NEEDED

USE

WATER: AVAILABILITY, ACCESSIBILITY
AND UTILIZATION

For the population, subgroups, target
groups:

Water consumption:

- distance to water source
- adequacy of quantity
- wholesomeness, safety
- seasonal and weather factors

Institutions:

Water supply systems and water
purification plants:

- how organized and financed
- availability/accessibility
- methods of delivery
- efficiency of delivery
- impact

National and/or local policies,
plans, programs, to increase
water availability and access-
ibility.

If the urban poor, or subgroups
or target groups among the
urban poor, lack an adequate and
steady and affordable supply
of wholesome water, that can be
a major contributor to health
and other problems. It is there-
for necessary to have information
regarding water supplies and
consumption.

HEALTH AND WELFARE

DATA NEEDED

USE

HEALTH AND SANITATION

Health and sanitation characteristics of the population, subgroups, target groups:

Information on the state of people's health needs to be obtained in order to determine the extent of the needs of health services.

Mortality rates and causes of death for:

- infants
- children
- men
- women

Measures of the health status of:

- infants
- children
- men
- women
- pregnant women
- nursing mothers
- the elderly

Incidence of diseases, epidemics, mental illness, disabling accidents, handicaps and disabilities

Incidence of vermin infestation

Health and hygiene practices:

- care of pregnant women
 - pre-natal,
 - post-natal,
 - maternal mortality rate
- childbirth practices
- care of the newborn
- care of the sick
- first aid
 - accident
 - natural disaster
- vermin control

It is necessary to have information on health and hygiene practices in order to judge their adequacy.

Knowledge, attitudes, and practices of population, subgroups, target groups:

Programs relating to health care and health care services will need to work within the context of people's knowledge, attitudes, practice and preferences.

Knowledge, attitudes, and practices with regard to:

- care of pregnant women
- childbirth
- care of the newborn
- care of the sick
- first aid
- vermin control

HEALTH AND WELFARE

DATA NEEDED

USE

HEALTH AND SANITATION (Continued)

Attitudes relating to
institutions and services
providing or potentially providing
health care

Institutions:

Institutions and services
providing preventive and
curative care: first aid, treatment
for injury and illness, surgery, pre-
natal care, obstetrics, care of the
newborn, dental care, rehabilitative
services, health examinations and
screenings, vaccinations, etc:

- how organized and financed
- availability/accessibility
- methods of service delivery
- efficiency of service delivery
- equity of delivery
- impact

National and local government:

Plans, policies, practices, laws,
regulations and pending legislation
regarding:

- health care
- institutions providing health
care
- institutions and services
providing health information
and education
- health-affecting substances
such as alcohol, tobacco,
mind-affecting drugs.

The urban poor need a variety
of health-related services.
In order to plan aid programs,
it is necessary to have data
on the availability and adequacy
of the existing services, and
the role of government in those
services.

HEALTH AND WELFARE

DATA NEEDED

USE

INFANT AND CHILD HEALTH

Characteristics and behavior of population, subgroups, target groups:

Infant and child care habits and practices in the home:

- by mothers
- by fathers
- by other adults in household
- by other children in household

Infant and child care habits and practices outside the home:

- family
- friends
- organized child care services/facilities

Adequacy of infant and child care

- health and safety
- developmental adequacy

Attitudes of population, subgroups, target groups:

Attitudes and preferences regarding infant and child care:

- in the home
- outside the home
- services and facilities outside the home

Institutions:

Institutions and services for the (non-medical) care of infants and children, full time and part time:

- how organized and financed
- availability/accessibility
- methods of service delivery
- efficiency of service delivery
- equity of service delivery
- impact

The ways in which infants and children are cared for, and the availability and adequacy of infant and child care services, affect health and welfare and also have a bearing on whether certain adults (usually mothers) can seek and hold employment outside the home.

Programs aimed at improving infant and child care, inside or outside the home, will have to work within the context of cultural beliefs and attitudes.

The availability and quality of institutions and services for the care of infants and children outside the home can have a major effect on the welfare of children. Information on these institutions will also be needed in order to assess their potential involvement in programs to improve care.

HEALTH AND WELFARE

DATA NEEDED

USE

INFANT AND CHILD HEALTH

National and local government: Plans, Policies, practices, laws and regulations related to infant and child care responsibilities of parents and others, and related to institutions providing (non-medical) care of infants and children.

If there are governmental policies, laws, or regulations relating to infant and child care and institutions providing care, it will be necessary to take them into consideration in designing programs.

HEALTH AND WELFARE

DATA NEEDED

USE

FAMILY PLANNING

Characteristics and behavior of population, subgroups, target groups:

Age-Specific Birth Rates

Family planning, birth control, and abortion practices

Values, knowledge and attitudes of population, subgroups, target groups:

Attitudes toward:

- children and their importance to the family socially and economically
- family planning and birth control
- sex preference
- abortion
- role of women

Knowledge related to:

- family planning and birth control
- abortion

Knowledge of and attitudes toward institutions providing information and services related to family planning, birth control, abortion

Family Planning Practices

- Prevalence of contraceptive usage by method; continuation rate, parity, and sex of living children

Fertility and population growth are often major factors in urban poverty. It is therefore important to have information on knowledge, practices, and attitudes that relate to fertility and its control. This information will also be important in designing programs related to such matters.

Knowledge and attitudes must be taken into account in IIPUP project design

HEALTH AND WELFARE

DATA NEEDED

USE

FAMILY PLANNING

Institutions:

Organizations and services providing information and education regarding family planning, birth control, abortion:

- how organized and financed
- availability/accessibility
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact

Markets, stores and other organizations and services providing birth control devices and supplies:

- how organized and financed
- availability/accessibility/cost
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact

Institutions providing family planning services:

- how organized and financed
- availability/accessibility/cost
- methods of delivery
- efficiency of delivery
- equity of delivery
- impact
- related, dual and multi-service agencies

National and local government:

Plans, policies, laws and regulations pertaining to family size, children born outside marriage, family planning

Policies, laws and regulations pertaining to organizations and services providing information and education regarding family planning, birth control

Policies, laws and regulations pertaining to institutions providing birth control devices and supplies

Information about institutions providing information, goods, and services related to family planning will be needed in order to assess the adequacy of services and to assess their role in potential IIPUP projects.

IIPUP programs related to fertility and its control will have to take into consideration any relevant governmental policies, laws and regulations

HEALTH AND WELFARE

DATA NEEDED

USE

FAMILY PLANNING (Continued)

Institutions:

Policies, laws and regulations
pertaining to institutions
providing abortion services.

LABOR AND EDUCATION

DATA NEEDED

USE

EMPLOYMENT

Characteristics and behavior of population, subgroups, target groups for all appropriate ages:

Wage-earning employment status:

- full-time or part-time
- temporary or permanent
- special status such as apprentice
- unemployed
- unemployed and not seeking work

If employed:

- occupation
- hours worked per day/week/month/year
- permanence of position
- type of employer (self-employed, family business, small business, large business, government, agriculture etc.)
- wages, including in-kind, exchanges of services, etc.

Employment history

Job-seeking activities of those with no work activity and seeking work

Employment and work-activity pattern in family(ies) living in same household:

- number employed
- sex of each
- age of each
- relationship of each
- occupation of each
- wages of each

It is necessary to have detailed information on employment patterns and occupations, in order to understand causes of poverty in particular populations, subgroups and target groups so that remedial programs can be developed. Some of these data also aid in the categorization of people into target groups.

LABOR AND EDUCATION

DATA NEEDED

USE

EMPLOYMENT (Continued)

Values, beliefs and attitudes of population, subgroups, target groups:

If employed in a wage earning or home capacity:

- attitudes toward present job
- desires and aspirations for future employment (type of work, wages)

If unemployed and seeking work:

- desires and aspirations regarding employment (type of work, wages)
- perceived reasons for being unemployed

Attitudes and cultural norms with regard to outside employment for particular groups such as:

- children
- young adults
- married women without children
- mothers
- widows
- the elderly

Institutions:

Institutions providing employment for the poor:

- how organized and financed
- size, number of employees
- type: business, industry, agriculture, community services, government, etc.
- types of jobs (occupations)
- permanence of employment
- wage scales

Institutions or services (if any) aiding the poor to find jobs:

- how organized and financed
- availability/accessibility/cost
- methods of service delivery
- efficiency of service delivery
- equity of service delivery
- impact

Programs to improve employment opportunities will need to take into consideration people's cultural patterns and attitudes toward employment.

Programs for aiding the poor may focus on providing better opportunities for employment. It will be necessary to have information on existing employers and employment opportunities as a base measure, and also in order to assess the potential role of various employers and types of employers in IIPUP programs.

If there are existing institutions or services that aid the poor in finding jobs, it will be important to have information on them in order to assess their potential role in IIPUP programs.

LABOR AND EDUCATION

DATA NEEDED	USE
EMPLOYMENT (Continued)	
<u>National and local government:</u>	
Services or assistance, if any, provided to those who have lost their jobs and are unable to find work	Information is needed on the roles played by government with respect to employment, unemployment, and employing institutions, since IIPUP programs may need to address those matters
Policies, practices, laws, regulations, pertaining to employment, employers, and institutions or services for the unemployed.	

<u>DATA NEEDED</u>	<u>USE</u>
<u>VOCATIONAL SKILLS AND TRAINING</u>	
<p><u>Characteristics and population, subgroups, target groups:</u></p> <p>Skills with vocational significance or potential:</p> <ul style="list-style-type: none"> ● from academic education ● from vocational education/training ● from past jobs ● from present job ● from unpaid activities (such as in the home) <p>Vocational education/training completed or current involvement</p> <p>Disabilities/handicaps that limit vocational potential:</p> <ul style="list-style-type: none"> ● nutrition ● physical disabilities ● perceptual disabilities such as blindness, deafness ● mental handicaps such as retardation, mental illness ● language or dialect problems <p><u>Knowledge and attitudes of population, subgroups, target groups:</u></p> <p>Knowledge of and attitudes toward various vocations</p> <p>Knowledge of and attitudes toward vocational training/education and the institutions that provide it</p> <p><u>Institutions:</u></p> <p>Institutions and other sources that provide vocational information, education or training:</p> <ul style="list-style-type: none"> ● how organized and financed ● availability/accessibility/cost ● methods of delivery ● efficiency of delivery ● equity of delivery ● impact 	<p>It is necessary to know people's existing qualifications and skills that are or could be put to use in paid employment, in order to guide the development of programs that would improve or better utilize those skills.</p> <p>Planning of programs to upgrade vocational skills would take into consideration the special needs of the handicapped.</p> <p>Information on vocational knowledge and attitudes will be needed as base-points in the development and implementation of IIPUP programs that deal with the upgrading of vocational skills.</p> <p>Information on institutions and other sources of vocational information and training will be needed in determining their potential involvement in IIPUP programs to improve vocational skills.</p>

LABOR AND EDUCATION

DATA NEEDED

USE

VOCATIONAL SKILLS AND TRAINING (Continued)

National and local government:
Plans, policies, laws and regulations
regarding vocational skills and
training and the institutions that
provide them.

If there are governmental policies,
laws or regulations relating to
vocational skills or training or
the institutions that provide them,
it will be important to take them
into consideration in designing
programs related to vocational
skills or training.

LABOR AND EDUCATION

<u>DATA NEEDED</u>	<u>USE</u>
<u>EDUCATION</u>	
Characteristics and behavior of population, subgroups, target groups:	Education, or the lack thereof, can be a major factor influencing the existence of urban poverty and the ways in which the poverty can be alleviated. It will therefore be important to have data regarding education and the schools, attitudes of the poor toward them, and governmental policies and regulations pertaining to them.
Non-formal education	
Education - Grades Completed:	
● number of years	
● primary	
● secondary	
● verbal ability	
● numeracy	
● literacy	
Current educational activities	Education (non-formal and formal) is a factor to be considered in:
	● planning vocational training projects
	● organizing income-generating activities
	● determining future industrial development and labor market needs
	● assessing project
Attitudes of population, subgroups, target groups:	
Attitudes toward academic education for children	
Attitudes toward academic education, and additional academic education, for adults	
<u>Institutions:</u>	
Primary and secondary schools:	
● how organized and financed	
● availability/accessibility/cost	
● enrollment as contrasted with total population per age group	
● age, income, and social groups served	
● curriculum	
● impact	

LABOR AND EDUCATION

<u>DATA NEEDED</u>	<u>USE</u>
<u>EDUCATION</u> (Continued)	
National and local government: Plans, policies, practices, laws, regulations related to education and educational institutions	To assess needs in relation to governmental: ● priorities ● plans ● practices ● policies
Other institutions (e.g., religious) providing education to children and/or adults: ● how organized and financed ● availability/accessibility. cost ● enrollment ● age, income, and social groups served ● curriculum ● impact	To determine the role of private and voluntary organizations in providing formal and non-formal educational services

TRANSPORTATION AND COMMUNICATIONS

DATA NEEDED

USE

TRANSPORTATION

(Population's) utilization of available transportation by the population, population subgroups (e.g., utilization by men and utilization by women), income and target groups:

Transportation needs:

- to jobs
- to sources of food, water, fuel, etc.
- to schools, clinics, child care facilities, etc.
- to rural homes/villages

Ownership/access to personal means of transportation such as bicycles, boats, "jeepnies", "baby taxis", motorbikes, oxen-drawn carts, etc.

Institutions:

Public transportation such as trains, buses, ferries:

- how organized and financed
- availability/accessibility/cost
- safety
- efficiency of service
- equity of service
- impact

Public roads:

- how built and maintained
- availability
- level and type of use
- adequacy

National and local government:
Plans, policies, practices,
laws and regulations related
to roads and public and private
transportation media

To examine the relationship between transportation needs and the utilization of what is available. To assess the role of transportation facilitating/inhibiting factor in relation to the poor benefiting from improved employment opportunities. To assess the role of transportation in meeting the basic food, clothing and shelter needs of the citizenry.

IIPUP programs related to transportation may need to address governmental policies, plans, laws, and regulations that pertain to forms of transportation.

TRANSPORATION AND COMMUNICATIONS

DATA NEEDED

USE

COMMUNICATIONS

Accessibility and use of communications media by total populations, population subgroups and target groups:

Public communications media can inform people about programs and services available to them.

Level of exposure to communications media:

- newspapers
- magazines
- radio
- community bulletin boards
- posters, billboards
- telephone
- other

Attitudes of population, subgroups, target groups:

Attitudes related to the believability of communications media:

- newspapers
- magazines
- radio
- community bulletin boards
- posters, billboards
- other

Institutions:

Communications media available such as newspapers, magazines, radio, community bulletin boards, posters, billboards, other:

- how organized and financed
- availability/accessibility/cost
- impact
- availability for public service messages
- frequency of distribution, broadcasting, etc.
- plans for expansion

National and local government:
Policies, practices, laws and regulations related to public communications media

If there are government policies or laws pertaining to public communications media, it will be important to take them into consideration in developing programs that will involve the media.

C. SURVEY METHODS

Having determined the data needed for project design or evaluation, a project officer will then confront a decision about whether to conduct a survey. Section 1 below outlines some suggested steps in that decision process. Section 2 provides a summary of secondary data sources generally available in developing countries. Finally, guidelines for conducting urban surveys in developing countries are presented Section 3.

1. Determining When to Conduct A Survey

Surveys are expensive and require considerable time for design and implementation. In addition, surveys of the urban poor are difficult, particularly in developing countries, as described below in Section 3. Consequently, the decision whether to conduct a survey should be made carefully, and any survey contemplated should be highly focused on the information required to avoid excess costs and extraneous problems. A useful approach is to follow these steps:

- Review existing secondary data to determine whether the data needed for project design or evaluation are already available. This review should entail an item by item comparison of a list of data needs with available data. The list of data needs provided in Part B (above) should be helpful in this exercise.
- Examine the quality of the available secondary data that appears to fit your data needs. Is it reliable? How was it obtained? What is the extent of its coverage? How recent is it?

- If there are gaps in the data or if aspects of those data are inadequate, what will be the effect of these shortcomings on project design and evaluation? A survey may not be cost-effective.
- Draw up a precise list of the data needed that cannot be obtained from secondary data. Is every item essential?
- Undertake a preliminary survey and cost out the proposed survey. Is the information worth the cost?

2. Secondary Data

"Secondary data" refers to existing information and data in narrative and/or tabular form. Secondary information may be found in government reports or reports from human services agencies. Population data, socio-economic characteristics, service statistics, survey or census data, and published data on expenditures may all be reported in tabular form. Such information may be available from an agency office or department responsible for its collection or report. In summary, secondary data is a synthesis of existing information derived from published and unpublished reports, which may have been gathered from a variety of sources. Such data are useful in the design and planning of projects and in assessing project implementation and impact.

In the majority of less-developed countries, information and data exist pertaining to programs, plans, policies and human services needs. This is true particularly of countries where there are urban development officers. In these countries, national plans and policies, statistical systems, and surveys are not new. Longitudinal, trend, and program evaluation data exist.

In addition many countries may have primary data available, i.e., raw data tapes containing information gathered directly as the result of interviews, self-administered questionnaires, or program records designed for specific purposes. These data can frequently be analyzed for a different purpose and special tabulations obtained.

Thus a project officer may be able to obtain useful and reliable information without conducting a survey. Both survey cost and time are saved.

Whether one utilizes secondary and/or primary data, available information will vary by sector and country. A project officer must use his/her judgment regarding the reliability and coverage of existing data. Project officers must evaluate the appropriateness and completeness of existing data. For example, in many countries labor force surveys have omitted women, yet a planned employment training project should include women. The source of all income distribution data in Panama is reportedly one question on a survey that is not based on probabilistic methods.

It is best to synthesize information and data from a variety of sources, thus offsetting the disadvantages of any one source (and implicitly one methodology), and thereby providing a combination of sources upon which to base project design, implementation, or evaluation.

There may be occasions when little secondary data are available. In this situation a project officer must allow more time for project preparation and the conduct of surveys. The project officer may also consider alternative, but no less significant, projects in sectors where secondary data are available or choose to proceed with project design without adequate data.

Table 3 provides a suggestive list of potential secondary data sources in relation to three areas of data needs.

One example of an existing data set is the World Fertility Survey (WFS), a major survey which has been conducted during the past five years and is still in process. WFS data provide information on social and economic characteristics, household composition, and other topics. Forty-one countries have participated in the World Fertility Survey. (Table 4 presents the countries participating in WFS as of April 1979.)

Published survey findings are currently available for 15 developing countries (column entitled "1st Report Complete"). The sample sizes vary from country to country, but generally range from 3,000 to 10,000. The columns entitled "1st Report Complete" or "1st Report in Progress" indicate those countries for whom raw data tapes may be available for analysis different from the original WFS purpose.

Another important source of secondary data is the country census. A census typically obtains information on household composition: age, sex, and birth place of each household member; social, economic and educational characteristics; religion; property; and health status. In the next few years, ninety-five (95) countries plan to conduct censuses of population and/or housing (See Table 5).

TABLE 3
SOURCES OF SECONDARY DATA

Data Needed	Sources
DEMOGRAPHIC AND SOCIAL CHARACTERISTICS	
Household Characteristics	Census, recurring and special urban sample surveys
Values, Beliefs, and Attitudes	Academic studies, sample surveys
ECONOMIC CHARACTERISTICS AND ACTIVITY	
	Finance Ministry, Planning Commission, relevant government departments, World Bank, US AID, and other international assistance agencies, commercial marketing firms.
SECTORAL CHARACTERISTICS AND ACTIVITY	
	Relevant department/ministry, sectoral offices of international assistance agencies, national professional associations.

Table 4

COUNTRIES PARTICIPATING IN THE WORLD FERTILITY SURVEY
AS OF APRIL 1979, BY PROGRESS STATUS*

	1st Report Complete	1st Report in Progress	Survey in Progress	Possible Participants
AFRICA			Cameroun Ghana Ivory Coast Kenya Lesotho Morocco Senegal Sudan Tunisia	Benin ¹ Mauritania ¹ Nigeria Tanzania Zambia
ASIA	Bangladesh Fiji Indonesia Korea, Rep. of Malayasia Nepal Pakistan Sri Lanka Thailand		Burma ² India ³ Iran Philippines	Afganistan
LATIN AMER & CARRIB.	Colombia Costa Rica Dominican Rep. Mexico Panama Peru	Guyana Jamaica Trinidad & Tobago Venezuela	Chile ⁴ Ecuador Haiti Paraguay	Brazil ⁵ Cuba El Salvador Guatemala ¹
MID- EAST		Jordan	Egypt Syria Turkey Yemen A.R.	

- ¹ Project to be submitted ² Field work in Burma has been postponed
³ Seven states in India are taking part using WFS methodology and software
⁴ Field work in Chile has been indefinitely postponed
⁵ Country survey using WFS methodology and software

*Source: U.S. Bureau of the Census, International Statistical Programs
Center, Population Reports, Series M, No. 3, July 1979.

Table 5 ANTICIPATED DATES OF NATIONAL POPULATIONS (P)
AND/OR HOUSING (H) CENSUSES^{1/}

<u>Country or Area</u>	<u>Census Date</u>
AFRICA	
Angola	1983 PH
Botswana	1981 P A
Cape Verde	1980 PHA
Comoros	1980 P
Gabon	1980 PH
Gambia	1983 P
Ghana	*III 1980 PH
Guinea	II 1980 P A
Libyan Arab Jamahiriya	VII 1983 PH
Mauritius	1982 PH
Morocco	1982 PH
Mozambique	1980 P
Nambia	(1980) PH ^{2/}
Reunion	1981 PH
Sao Tome and Principe	1980 P A
Sierra Leone	1984 P
South Africa	(1980) PH
Sudan	(1980) P
Togo	1981 PH
Zaire	(1980) P
Zambia	1980 PHA
AMERICA, NORTH	
Antigua	12 V 1980 PH
Bahamas	12 V 1980 PH
Barbados	12 V 1980 PH
Belize	12 V 1980 PH
Bermuda	12 V 1980 PH
British Virgin Islands	12 V 1980 PH
Canada	9 VI 1981 PH
Cayman Islands	12 V 1980 PH
Costa Rica	1983 PH
Cuba	1981 P
Dominica	14 VII 1980 PH
Dominican Republic	1980 PHA

^{1/} Source: United Nations Statistical Office, 15 January 1980 list of Dates of National Population and/or Housing Censuses. Unless otherwise noted, the dates refer to complete (100%) enumeration, even though some topics may have been investigated on a sample basis.

^{2/} A date given in parentheses is the date anticipated by the Statistical Office of the United Nations on the basis of an established pattern of census taking.

* A roman numeral refers to the calendar year month in which a census will be conducted. When a roman numeral is preceded by an arabic number, the arabic number refers to the day of the month on which the census will be conducted.

<u>Country or Area</u>	<u>Census Date</u>
El Salvador	VI 1980 PH
Grenada	12 V 1980 PH
Guadeloupe	1981 PH
Guatemala	III 1981 PH
Haiti	VIII 1981
Jamaica	15 IV 1980 PH
Martinique	1981 PH
Mexico	VI 1980 PH
Montserrat	12 V 1980 PH
Netherlands Antilles	(1981) PH
Panama	11 V 1980 PH
Puerto Rico	1 IV 1980 PH
Saint Lucia	12 V 1980 PH
St. Kitts-nevis-Anguilla	12 V 1980 PH
St. Pierre and Miquelon	1981 PH
St. Vincent	12 V 1980 PH
Trinidad and Tobago	12 V 1980 PH
Turks and Caicos Islands	12 V 1980 PH
United States	1 IV 1980 PH
U.S. Virgin Islands	1 IV 1980 PH
AMERICA, SOUTH	
Argentina	(1980) PH
Brazil	IX 1980 PH
Chile	XI 1980 PHA
Ecuador	1984 PH
French Guiana	1981 PH
Guyana	12 V 1980 PH
Peru	1981 PHA
Suriname	12 V 1980 PH
ASIA	
Bahrain	1981 PH
Bangladesh	1 II 1981 PHA
Brunel	(1981) PH
Burma	1983 P
China	31 VI 1981 PHA
Hong Kong	II-III 1981 PH
India	1 III 1981 P
	X 1980 PH
Indonesia	X 1980 PH
Israel	1982 PH
Japan	1 X 1980 P
	1 X 1983 H

<u>Country or Area</u>	<u>Census Date</u>
Korea (Republic of)	1 X 1980 PH
Kuwait	IV 1980 PHA(27)
Lao's Peo. Dem. Rep.	1980 PH
Macau	(1980) PH
Malaysia	10 VI 1980 PH
Nepal	22 VI 1981 P A
Oman	1981 P
Pakistan	1981 PH
Philippines	1 V 1980 PH
Singapore	VI 1980 P
Sri Lanka	1 III 1981 PH
Syrian Arab Republic	1980 PH
Thailand	1 IV 1980 PH
Turkey	(1980) PH
United Arab Emirates	1980
Yemen	1980
Yemen, Democratic	1983
OCEANIA	
American Samoa	(1980) PH
Cook Islands	(1981) PH
Guam	(1980) PH
Johnston Island	(1980) P
Midway Islands	(1980) P
Papua New Guinea	20 IX-30X 1980 PHA
Samoa	(1981) PH
Wake Island	(1980) P

Most developing countries now have at least one household survey or employment survey for their major cities.^{1/} Thus considerable secondary data exist on urban poverty in developing countries, and those data are improving. Nevertheless, the available data may be inadequate for project design and evaluation, so that surveys must be considered.

^{1/}A useful bibliography of those surveys can be found in C.Chiswick and J. Kipnis, Size Distribution of Income: Bibliography of Basic Sources, Bank Staff Working Paper 217, March 1975.

3. Conducting A Survey

There are several steps that must be completed in conducting a sample survey. These include the development of a sample design and data collection forms, design and implementation of procedures to field the survey, including staff recruitment and training, supervision and quality control, and procedures to edit, code and process the survey data. The main topics within each task are discussed, focusing on survey issues and problems in developing countries. We conclude by reviewing the costs of a survey, emphasizing the unique risks and difficulties of cost estimation for urban surveys of low income populations in both developed and developing nations.

a. Sample Design

A sample survey is a short-cut alternative to collecting information on all members of a population of programmatic interest. Sample surveys which are funded for IIPUP evaluations are likely to focus on one or more target groups, as well as on the institutions which will provide services to those target groups. In addition, there may be interest in collecting information from the general urban population, which may be indirectly affected by services primarily directed to segments of the urban poor.

A survey may be based upon a probability or non-probability sample. A probability sample is selected according to statistical specifications requiring that every unit in the population have a known, non-zero, chance of selection in the sample, and the probability of selecting every unit

of the population is known in advance. In a non-probability sample, selection of sample members is based upon the judgment of the investigator. Non-probability samples rely on the hope that the sample members are fairly typical of the population. While non-probability methods may be cost effective tools for IIPUP, they generally do not provide data that are as useful for program design and evaluation as are probability methods.

Investigators generally try to adhere to probability sampling methods so that statistical methods based on the theory of mathematical probability are applicable. In practice however, some departures from strict probability sampling often occur. In this section, we will discuss some potential sampling problems that are characteristic of developing countries and methods that may ameliorate these problems. The theory that supports survey sampling methods is discussed in numerous textbooks and will not be reviewed in this paper. ^{1/}

The chief risk in basing policy decisions on sample surveys is that the sample results may not be representative of the population they are purported to represent. Users of a data base often forget the origins of their data. Although interpretations of the results of sample survey data generally assume probabilistic sample selection methods, the implementation of the sample design often results in systematic exclusion of some segments of the populations of interest, either through construction

^{1/} A thorough treatment of sample design issues is provided by Kish (1965). Warwick and Lininger (1975) and Scott (1978) provide brief treatments of sampling methods in developing countries, focusing on the tradeoff between cost and precision. Volume IV of the Atlantida series, a case study in designing household sample surveys, outlines the main principles to be considered in designing a sample survey. This source, however, would be more appropriate for a user designing a longitudinal panel survey, like the U.S. Current Population Survey.

of the sample frame that represents the population, selection of the sample units, for example, households to be surveyed or through selection of the individuals to be interviewed about these sample units.

IIPUP surveys will generally focus on poor, urban target groups and the institutions responsible for delivering services to these target groups. The ability to construct a sample frame that identifies the population to be surveyed depends upon the sources of information available to identify and locate these populations. Since the sources of information will differ between target groups and institutions these populations will be treated separately.

1. Institutions

The institutions about which data would be needed for IIPUP programs are categorized by sector in Section III.B. Much of the needed institutional information may be gathered through review of published and unpublished literature and discussions with relevant officials and experts. This would include information on governmental policies, practices, laws and regulations that may impact on IIPUP programs.

In other cases, it will be necessary to survey representatives of the institutions that may affect or be affected by IIPUP programs. Frame for some of these institutions can be constructed from published sources, such as government listings, professional associations, or advertising sources. These may include credit and financing institutions, retail associations, public and private utilities, public employment agencies,

licensed educational and medical providers, communication media, and employer associations. However, these listings are often incomplete in developed countries. In developing countries, published listings may be even more incomplete because of less developed communications facilities.

One method that may be used to amplify published listings is to build up the initial list with references supplied by informants. This method of building a sample frame for a special population by using an initial set of its members as informants is called snowball sampling.^{1/} For example, let's assume that we are interested in developing a list of institutions that provide health services to the urban poor. We could begin with a published list of official health care institutions. Representatives of these institutions could be queried about other organizations and individuals that provide health care (e.g., voluntary organizations, healers, midwives, pharmacists, etc.) to the urban poor. These additional sources would be added to the sample frame, and sampled for the survey. Snowball sampling is an acceptable method for increasing the sample as long as the members of the population know of one another. However, this method is less reliable for populations for which it is difficult to assign reliable estimates of the probability of inclusion.

Other sources of information for institutional sample frames may be less conventional, but important for program evaluation. For example, community bulletin boards, posters and billboards may be sampled on a purposive basis to provide insights about the penetration of information on programs to the target population.

^{1/} A brief summary of this method is discussed by Kish (1967, p. 408). A more detailed discussion is available in Goodman (1961).

In general, non-probability or informal methods may be suitable for the study of institutions for IIPUP, where essential information needs can be met by relatively few experts and official information "gatekeepers." However, the use of non-probability methods for the surveying of target groups is much more risky since it is unlikely that a few purposively selected individuals will reflect the behavior and attitudes of the urban poor.

2. IIPUP Target Populations

The first issue to be resolved in developing a sample frame for the IIPUP target groups is the definition of the population. The target population must be defined in terms of identifiable and measurable characteristics.

These are very difficult problems in low income urban research even in developed countries. Even ascribed characteristics such as age or sex may be difficult to identify. In some cultures, women may not be permitted contact with interviewers, except under strictly controlled conditions (Hursh-Cesar, p. 232-33). Information on age may be difficult to obtain from cultures in which birthdates are given less importance than in the West (Blacker, pp. 279-281).

Household may be an important concept to distinguish the IIPUP target populations (PADCO, pp. 4-9). The conventional definition of a household includes all persons living in a housing unit, where a housing unit is a living area for which there is either private access or separate cooking facilities. However, urban households could also be defined in

terms of co-operative living arrangements: common cooking pot or other facilities, living in a walled compound, sharing costs of building maintenance, etc.

The identification of housing units may be obscured by the serpentine configuration of urban streets in slum areas and by non-existent or inconsistent house numbering schemes. Finally, the target population may not be living in a definable housing unit, but be part of a floating population that rotate quarters at different times of the day (Hursh-Cesar, pp. 228-30).

Once the target population is defined in identifiable and measurable terms, it is necessary to construct a sample frame from which members of the population will be sampled. If the purpose of the survey is to collect information from known participants in an IIPUP program, the sample frame may be constructed from program listings. Even in this case, participants may have to be interviewed at home and there will be some loss of coverage and potentially some bias, due to non-response. However, program records on early interviews in a panel survey may provide information on participants that can be used to make adjustments for non-response. ^{1/}

It is more likely, however, that there will also be interest in a comparison group that is comparable to participants in IIPUP programs or in target populations that cannot be individually identified from

^{1/} This procedure was used in an evaluation of Supported Work programs in the U.S., see Brown (1979). Hursh-Cesar (1976, pp. 207a-209) discusses the use of a similar procedure to adjust for a high non-response rate due to inaccessibility of sample members in an evaluation of a school lunch feeding program in Orissa.

program records; but that reside in an urban area receiving IIPUP services. The sample frame for these populations will have to be constructed from an area probability sample. If information on these target populations is available from secondary data sources (see section III.C.1), it is possible to design an efficient sample that disproportionately concentrates survey resources in strata (e.g., geographical areas) which are most likely to be affected by the IIPUP service (s). (See Kish, 1966, Ch. 11).

It is important to emphasize, however, that eliminating urban areas with a small, but non-zero, target population reduces the generalizability of the results to the target population in those areas that are sampled. However, this compromise with probability sampling methods may be chosen if there is reason to assume that members of the target population who reside in the excluded areas are not likely to differ from surveyed target group members in ways that are of interest to program planners and policy makers.

When there is insufficient secondary data available to design an efficient probability sample to identify the location of the IIPUP target populations, sampling is divided into two phases. The first phase is a preliminary screening to identify two or more strata in which the distribution of the target population substantially differs. In the second phase, sampled members of the target population are interviewed.

For example, assume that a survey is being conducted to evaluate the impact of IIPUP on a target group, defined as families and unrelated individuals residing in sub-standard housing. The urban area impacted

by IIPUP would be geographically segmented into neighborhoods or census enumeration districts. These neighborhoods would then be stratified, based upon the expected percentage of target group households. Let us assume that stratum A would include neighborhoods in which at least 50 percent of the households would be residing in sub-standard housing, stratum B 25 to 50 percent and stratum C less than 25 percent. These strata would then be sampled at different rates to optimize the "yield" of sample members with respect to cost per completed interview.

In the absence of secondary data sources on the spatial distribution of the target group, the preliminary screening will most likely be based upon some type of interviewer enumeration of households or through aerial photography of the target area.

Interviewer enumeration is a labor intensive and time consuming process. The urban area that is expected to include the target population is divided into segments for enumeration, either from existing maps or from preliminary listings of physical structures. Representatives of all or a sample of the dwellings in these segments are interviewed to ascertain the presense of persons or groups of persons (e.g. households) that meet the target population criteria. Based on this information, the segments are stratified and sample members are selected for the main survey.^{1/}

^{1/} Methods used to optimally allocate the sample are discussed in Kish (1966, Chapter 11).

There is a general problem with this method that applies to developed as well as to developing countries. Screening is bound to result in false positives (sample members erroneously included in the target population) and false negatives (sample members erroneously excluded). The probability of screening error increases with the complexity of the screening criteria. False positives can be identified during the main survey. However, false negatives go undetected unless a sub-sample of "ineligibles" is sampled for the main survey. The size of this sub-sample in relation to the total sample depends upon the magnitude of the problem.

Additional problems with screening, which are characteristic of urban areas in developing countries include unmapped areas, unnamed streets, and streets that are inaccessible by vehicle (Bertraud, 1978).

An alternative to screening interviews that has been used in some urban surveys in developing countries is aerial photography. In a study conducted in Yaounde (Yaounde Household and Housing Characteristics, 1978), a sample of households was stratified on the basis of housing type associated with physical characteristics which were identified from aerial photographs. Socio-economic surveys were then conducted with occupants of the sampled dwellings. The hypothesis underlying this methodology is that "homogeneous housing types with similar physical characteristics (spatial organization, density, plot and house size, infrastructure, level, construction material, etc.) are inhabited by relatively homogeneous populations with similar socio-economic characteristics (Yaounde, p. xi).

The advantages of this methodology were summarized in the report

and are reproduced here because many of these advantages apply to collection of information on services discussed in the PADCO paper. ^{1/}

1. Data from other sources can be integrated into the data base established by the typology;
2. Data on a metropolitan area can easily be updated between two census takings without needing extensive field surveys;
3. Data broken down by housing type and according to socio-economic groups can be more useful than data simply broken down by administrative or census districts. (Water consumption for the whole population of a city or district, for example, may be considered adequate, but this may not necessarily be the case when considered by housing type or group);
4. Real needs in housing and infrastructure as well as the economic feasibility of operations can be more easily evaluated by type;
5. Rental characteristics of the housing stock can be determined;
6. A governmental policy based on real needs of the population can be better oriented; and
7. Spontaneous developmental tendencies of the urban area can be identified by comparing typologies of a few years apart.

(Yaounde, Vol. I, Annex I. p. 38)

A final point that should be added is that a good sample design should assess the costs and schedule implications of alternative methods to construct a sample frame to meet project design and evaluation goals. For many purposes, it may be preferable to exclude some segments of the target or institutional populations from the survey to meet scheduling or cost constraints.

^{1/} Another study (Bertraud, 1978) that focused on housing needs in urban areas of developing countries, rather than housing and household characteristics, provides a more detailed discussion of the methodology and cost of the aerial photographic methodology.

b. Instrument Design

The second important phase of survey design is developing and pretesting instruments to collect the necessary information. We will discuss the appropriate methods to use in collecting the survey data, the problems of questionnaire design in a multi-cultural environment and methods that should be used to minimize these problems. We will not discuss the physical layout of the questionnaire, question types or scaling methods. Both Warwick and Lininger (1975, Chapter 6) and Hursh-Cesar (1976, Chapter VI) discuss these issues and provide references for further information on these topics.

1. Methods of Data Collection in Sample Surveys

Three methods are commonly used to collect information from persons for sample surveys: self-administered questionnaires, telephone interviews and face-to-face interviews (which may be administered in the respondent's home or in other convenient settings). The mail and telephone methods are not likely to be used in surveying target populations because of low literacy, unreliable mail service or lack of telephones by the urban poor, and possible respondent mistrust. However, in urban areas where service is adequate or where private mail services are inexpensive, these methods may be useful in surveying some institutional populations.

A major advantage of mail or telephone surveys compared to in-person interviews in developed countries is that the cost per case is substantially less. However, this may not necessarily be true in developing countries where labor costs for interviewers may be very low, relative to the cost of mail or telephone service.

In addition, the interviewer is removed as a source of bias (in the mail survey) and can be supervised more effectively (in the telephone survey) compared to in-person interviews. However, mail and telephone surveys generally require shorter questionnaires and are usually less complex than in-person surveys. The most important liability in using mail or telephone methods is high non-response, although recent experience (Dillman, 1978) indicates that these problems can sometimes be circumvented. A final consideration in deciding whether to use mail surveys is whether the respondent population is likely to respond without personal contact. Will the respondent provide information without prior personal contact with representatives of the sponsoring agency or organization or will letters of reference which accompany the questionnaire be sufficient?

For the reasons cited above, interviews with members of IIPUP target populations must generally be conducted in person. These interviews will often be conducted in the sample member's residence, but may be more conveniently scheduled at the respondent's place of work or other location. The problems inherent in personal interviewing are discussed in Section (III.C.2.c).

2. Questionnaire Design

Surveys conducted to help design or evaluate IIPUP programs will be conducted in a variety of cultural settings. Even surveys conducted in an urban area in one nation may be administered to persons with very different cultural backgrounds. The most difficult task in designing

questionnaires or interview schedules ^{1/} in these surveys is developing concepts and measures that are equivalent in meaning across the cultural groups which are sampled. Almond and Verba (1961), identify four major areas of equivalence in cross-cultural questionnaire design. These include (a) comparability in the salience and meaning of the concepts (conceptual equivalence), (b) equivalence in the operational definition of the concepts, (c) linguistic equivalence through translation and (d) comparability in responses. These four areas are discussed below.

(a) Conceptual Equivalence - The basic question is whether a concept can have the same meaning in different cultures. Thus a concept like "looking for work" may have a very different meaning to a recent rural migrant than for a long time urban resident.

(b) Operational Definition of a Concept - Even if a concept can be conceptualized to have similar meanings across different cultures, it is extremely difficult to develop measures from personal interviews that are equivalent. Even a seemingly simple measure like age may be very difficult to measure comparably. Demographers have commented on this problem. Som (1971) points out that historical calendars, tribal "age grades" and relative ranking within a group have been used in areas where birthdate is not known.

Needless to say, economic concepts and attitudes are more difficult to capture in comparable terms for different cultural groups. Hursh-Cesar points out an example of problems in trying to measure wealth in Nigeria using concepts developed and pretested in Brazil.

^{1/} An interview schedule is simply a set of carefully designed questions to measure the conceptual areas of interest in the survey.

That measures obviously must be adapted to cultures is illustrated by the differences found in measuring wealth in Nigeria. After pretesting, the items used in Brazil were discarded as inapplicable to Eastern Nigeria. Rather, more relevant indicators of wealth were found to be such things as owning a pair of trousers or laced shoes, having a framed photograph or a drinking glass in the house, or serving beer to guests instead of native palm wine. Eventually, it was found that one of the most discriminating measures of household wealth was the number of bamboo poles that the farmer used for drying his own yams that came to him in payment for land tenancy or debt. Other, more visible indicators of wealth were the number of wives a man had and whether his house walls were mud or concrete or whether the roof was thatched or metal.

(Hursh-Cesar, 1976, p. 256)

(c) Linguistic Equivalence

Typically, questionnaires are designed in English or another language that is foreign to the target population, translated to a major regional language and further translated into local dialects. There are several potential problems with direct translations. The translations tend to be stilted and unnatural in the local setting. The translation may result in offensive words that touch local taboos, may include words for concepts outside of the respondent's experience or may include incongruous words that suggest concepts different from those intended.

A procedure that is used to minimize these problems is back-translation. A bilingual person translates the questions from language A to language B, and another bi-lingual person(s) independently translates the draft interview schedule back into language A. If the new version A is comparable to the original, one can feel confident that the translation was faithful. However, it is still difficult to determine if the questionnaire is sufficiently colloquial to be understood by the respondents. (Hursh-Cesar, 1976, pp. 285-287).

(d) Comparability in Responses

In designing a questionnaire, it is important to bear in mind cultural differences in response styles. There are obviously individual differences in response styles that are idiosyncratic, but there may be more pervasive differences that are determined by cultural norms, values or social class. Warwick and Lininger (1975, p. 167) quote a study in which the frequency of "no-answers" to pre-coded questions and the frequency of answers to open-ended questions varied significantly between Chinese and Indian respondents in Malaysia. Hursh-Cesar (1976, p. 287) cites examples of the "courtesy bias" in which the respondent gives answers to please the interviewer. The social desirability bias, which may also characterize different social classes in more ethnically homogeneous developed societies, may also be a problem. The respondent gives socially acceptable answers that he or she presumes to be proper. This type of bias is more of a problem for attitudinal than behavioural questions, but may affect behavioural questions that indicate social status, like income or employment status. In other cases, members of a cultural group may deliberately deceive an interviewer in order to track or outwit an "outsider".

These problems highlight the value of indigenous investigators to the survey. An indigenous investigation can bring to the questionnaire design process an understanding of the potential problems of lack of conceptual equivalence, operational problems with definitions of concepts, problems of linguistic equivalence, and the meaning of responses. The critical role of the indigenous investigator in designing surveys in developing countries is discussed further in Section 2.

In the next section, we will discuss how careful questionnaire design may reduce, if not eliminate, these problems.

3. Techniques for Improving Questionnaire Design

Hursh-Cesar (1976, p. 290) identifies five steps in designing a questionnaire for a developing country:

- a. Documentation of existing literature to focus the instrument on the research issue;
- b. discussions with local informants to assist in formulating approaches to design;
- c. intensive contact, if not anthropological study, of the target population to refine the focus of the study;
- d. unstructured interviewing to determine linguistic nuances and the meaning of the concepts;
- e. small scale pretests to test out measurements, question wordings or the relevance of concepts.

Thus, the researcher should determine whether questions are too embarrassing, too complex, biased or outside the respondent's frame of reference before the main survey is begun.

These techniques are generally useful for survey design in developing countries. Not all the techniques are appropriate for all IIPUP surveys. However, one should determine whether or not the problems likely to be uncovered by each method is serious before discarding that method. When schedule or costs become constraints, one should consider eliminating variables from the study where their validity cannot be assessed.

a. Literature Search

An initial step in any study design should be review of existing literature. In a survey, one should review the experience of other programs and researchers in using different instruments to measure the concepts to be included in IIPUP surveys. In particular, one should review evidence

of the reliability and validity of these measures. ^{1/}

b. Discussion with Local Informants

Even when the study is being conducted by individuals indigenous to the area surveyed, the investigators may not be indigenous to the culture or cultures being surveyed or may not be familiar with the customs, values or linguistic idiom of the social classes in the target population. In these cases, one should attempt to collect information on cultural norms and linguistic characteristics that bear on the survey.

c. Participant Observation

Observation of the behavior of selected members of the target population by a trained anthropologist or other social scientist may be useful, particularly in developing attitudinal questions, which require a sensitive understanding of the thoughts and feelings of respondents. However, this is a lengthy process and probably not feasible for IIPUP projects. However, as part of the literature search, program officers and investigators should become familiar with existing studies that facilitate conceptual design and question formation.

d. Unstructured Interviewing

Unstructured interviews with a small, purposive sample representing the target population can assist in clarifying the meaning of key concepts

^{1/} Hursh-Cesar (1976, Ch. VI) reports on the results of several studies of the reliability of attitudinal and behavioral variables in selected developing countries. Alers (1970) evaluated the effect of interviews on survey response in an Andean estate. Knodel and Piampiti (1977) found that the reliability of some demographic and attitudinal variables in a Thai survey was not substantially below that of American fertility surveys. In both countries, however, the reliability of attitudinal variables was low.

It is important to point out that reliability often varies depending on the mix of respondents, interviewers and types of questions. Thus, one should be careful in generalizing from results across very different cultural contexts.

to respondents and in formulating questions. Two such methods, the in-depth interview and projective techniques, are discussed by Hursh-Cesar. The main intent of the in-depth interview is to obtain the respondent's ideas, evaluations, descriptions, attitudes and behavior with respect to some particular conceptual area or areas. (Hursh-Cesar 1976, p. 251). This method provides the researcher with insights to the population's underlying values and attitudes and provides indications on how people use language to express these values and attitudes. ^{1/} Projective techniques, such as sentence completion tests, ambiguous drawings, etc., can be used to generate themes and linguistic forms for survey measures.

e. Pretesting

Before the survey instrument is to be pretested with the target population(s), the instrument has normally gone through several revisions and internal review, focusing on the problems discussed in this section. The pretest should provide a live test on the content of the instrument, respondent burden (length and difficulty of providing accurate responses),

^{1/} A related method that is sometimes used in developing interview schedules is the focus group discussion. Individuals who are similar to the respondents to the survey being designed are brought together to discuss the topics of the survey. The moderator, using a guide, focuses the discussion in such a way that key concepts are clarified, nuances of language emerge, and information that is useful to the creation of response categories is obtained.

This method has been commonly used in western countries in marketing research. It is conceivable that the method could be adapted for use in IIPUP surveys. However, many of the cultural barriers to creating a survey instrument, cited above, would also inhibit the successful operation of focus group discussions.

field procedures, such as optimal times for interviewing and problems in locating respondents, formatting, coding and data processing procedures.

The size of the pretest depends on the means used to evaluate the results, which in turn may be constrained by cost and the time schedule. If there are not any major concepts or procedures to be formally tested, the results of the pretest can be evaluated during a debriefing, which includes investigators, project evaluators, survey supervisors, interviewers and, in some cases, respondents. Decisions on changes are based upon discussion and qualitative review of the interview schedules. A pretest of under 50 observations should be sufficient. If there is a formal test of two or more alternative methods of measurement, data collection or field procedures, a larger sample is required. The size of the larger sample would be dependent upon the variation in the data to be collected and the desired precision of any statistical tests to be performed.

The problems which should be discussed on the content of the questionnaire include clarity, sensitivity, complexity and relevance. Is a question ambiguous or does it take too long to get to the point? Are some questions too sensitive or embarrassing for local traditions, superstitions, taboos or politics? In other cases questions may be insensitive to local status distinctions. Are the sensitive questions located at a point in the interview at which the respondent has developed trust? Are these questions in a meaningful context? Can the impact of the sensitive questions be moderated by being placed after less sensitive warm up questions? Questions should not post options or situations which are outside of the respondent's experience.

c. Fielding the Survey

Field operations include several distinct phases, including recruitment, training of the interviewing staff, supervisory and field controls over quality, document control procedures and development of procedures for respondent non-cooperation or inaccessibility.

1. Recruitment

The interviewer is trained to assume a role of neutrality in appearance and method in conducting an interview. However, interviewers must also develop some rapport with their respondents in order to induce them to participate in the study. In some cultural environments, interviewers may have to work their introductions into social rituals, such as drinking tea, sharing the bettle nut, meeting elders (Hursh-Cesar, 1976, p. 305). The interviewer must be a flexible individual who is capable of adapting his or her role to frequently changing circumstances.

There has been considerable interest in survey research in both developed and developing countries in identifying the characteristics of good interviewers. Unfortunately, the guidelines that can be provided vary with study population and subject. However, the survey director should take the following factors into consideration in recruiting staff.

a. Demographic Characteristics. Matching on demographic characteristics, especially sex and ethnic background, is generally desirable. For example, in a study in the Sudan (Henin, 1971), female interviewers had

to be used to interview women because men would not let their wives be interviewed by other men. Ethnic matching can sometimes be troublesome, however, especially if the researcher is unaware of the level of differentiation in a seemingly homogeneous community. Hursh-Cesar (1976, p. 305-06) notes that in a Nigerian study educated Ibos were unable to interview members of clans they did not belong to. It is clearly essential to be aware of local customs and ethnic differences in developing recruitment plans.

b. Skills and Experience. Required reading, verbal and numerical skills should be pitched to the needs of the study. There is no point in excluding qualified candidates by overstating educational requirements. Interviewing experience, per se, should not be a prerequisite for hiring. In fact, if the applicant had been poorly trained, it will be necessary to spend time eliminating bad habits.

c. College Students. College students are often hired as interviewers in both developed and developing countries because of their education, relatively low cost and professed interest in social research. However, students often are or appear to be members of elite groups to the urban poor, may speak inappropriate dialects and colloquialisms, and find it difficult to communicate with respondents.

d. Occupational Background. Interviewers have been recruited with varying success from a variety of backgrounds: government census takers, school teachers, public health workers, community development workers, school drop outs. Again, it is not possible to generalize on specific occupational categories, but it is important to assess the adequacy

of the candidates' linguistic skills, educational level (for the demands of the survey) and acceptance of the interviewer's role.^{1/}

e. Other Characteristics. In some types of interviewing situations, endurance and acceptance of physical hardship may be important traits. This is not as likely to be as much of a problem in urban as in rural areas. However, interviewers may have to accept a certain amount of physical danger in interviewing in some urban areas.

2. Training

The goals of training are to familiarize the interviewer with the objectives of the study, the content of the survey instrument, interviewing skills, field procedures (distribution of assignments, reporting, quality control) and personnel policy. It is also important during training to establish a high level of morale. This can be achieved by emphasizing the place of the interviewer's role in the research process, by allaying their doubts and suspicions about the projects' goals and by involving the interviewers in other stages of the survey, such as sample preparation or coding where feasible. It is also important that interviewers understand that their role is data collection, not social action.

During training, interviewers should be provided with a mix of print and audio-visual materials, where available, to maintain interest.^{2/} Role-playing exercises are a commonly used and interesting training method

^{1/} Mathematica Policy Research (MPR) has had considerable success in the U.S. with recruiting and training members of program target groups as interviewers, including the urban poor, welfare recipients, ex-addicts, ex-offenders, and unemployed minority youth. This approach, while difficult, can dramatically improve access to target groups in an urban setting.

^{2/} MPR has developed video and film interviewer training materials that are now used extensively in the U.S. and in many western countries.

that increase the interviewer's understanding of the problems in the interviewing situation. These exercises also help to break down trainee passivity in the presence of researchers or administrators, which is always a problem for some individuals, and may be particularly troublesome in some cultures. Participation by survey research staff during training can improve staff morale by showing the commitment of project staff to the solution of interviewing problems.

The length of training varies with the complexity of the study, the interviewers' educational level, linguistic abilities and related work experience. Hursh-Cesar (1976, p. 311) refers to interviewer training sessions varying from a few weeks to six months. Even the lower bound is high by U.S. standards, even for urban surveys of low income populations with indigenous interviewers. Training sessions typically last three days to a week in the U.S. The experience of other survey organizations in developing countries should be investigated further before planning training sessions for IIPUP surveys.

3. Supervisory and Field Controls

Trained supervisors, who have a greater level of understanding of the project's objectives than the interviewers, are necessary to assure that interviewers do not vary interviewing methods on their own. The supervisor is responsible for distributing assignments to interviewers, checking questionnaires for omissions, unusual response patterns and inconsistencies, and acting as a link between interviewers and the survey director. Some types of problems, such as reallocation of assign-

ments to interviewers or retraining, can be handled by the supervisor. Other problems, such as unforeseen ambiguities in questions, should be resolved by the survey director, documented and conveyed to the interviewers by the supervisor.

The supervisor must keep accurate records of field problems and assignments and communicate regularly with the field director. It is also desirable that the supervisor accompany the interviewer on some assignments to observe interviewing performance.

Finally, it is important that the supervisor does not harass interviewers so that they quit or report erroneous information to the office. This problem can be controlled by the survey director's keeping in contact with the interviewers.

The ratio of interviewers to supervisors varies considerably depending on the complexity of the survey, the extent of contact between interviewers and the supervisor, interviewers' productivity, and the data editing and document control responsibilities of the supervisor. In the U.S., a supervisor in an urban survey of a low income population, should be able to manage 10 to 20 interviewers. However, the appropriate ratio may vary across host countries and would be based upon local supervisory resources and practices.

4. Document Control

A frequently ignored aspect of field operations is developing adequate control over sample assignments. Whether the process is manual or automated, it is essential for the field office or interviewing super-

visor to document information on the existence and location of sample members and to keep track of assignments across interviewers.

It is also necessary to ensure that interviewers receive survey materials and paychecks on schedule.

5. Respondent Cooperation and Accessibility

Noncompletion of interviews due to the sample member's refusal to participate or because of his or her inaccessibility will bias the results of the survey if the missed respondents differ systematically from those who complete interviews. There are several precautions that can be taken to minimize these problems. As with other design and field procedures discussed here, the applicability of these procedures depend upon a thorough and accurate perception of the characteristics and behavior of the target population. These procedures include pre-survey publicity, information on sponsorship and confidentiality included in the interviewer's introduction, privacy during the interview and scheduling of interviews.

a. Pre-Survey Publicity. Publicity is desirable if the subject of the survey can be presented as beneficial, or at least, non-threatening to the community. The survey should not be construed as an information gathering tool that will be used in taxation, conscription, political surveillance, or prosecution. The publicity campaign may include a press release (a valuable device for institutional populations), radio or television advertisements, or an explanatory pamphlet which the interviewer can leave with the respondent (if literacy is moderately high).

b. Introduction. The introduction to the interview should include information on the subject and sponsor of the survey. Information on these topics should be presented in a brief and honest description when the topic is not sensitive or threatening or when the sponsor is well regarded. A more diffuse approach may be required for possibly threatening subjects such as methods of abortion or when the sponsor may be associated with a foreign or unpopular government. Back and Stycos (1959) report on a fertility study in Jamaica in which the government was not mentioned in the pretest introduction, with positive results. However, a new government which was perceived to be more favorably disposed toward the lower class sample, came into power after the pretest. Respondents were disturbed at the omission of government sponsorship.

In some rural studies, it is necessary to also get the sponsorship of the village headman, tribal elders, or important landlord to encourage cooperation of sampled respondents, or at least to avoid offending them. This may not be as much of a problem in urban areas, but it will often be desirable to determine if it is necessary or helpful to get the endorsement of local influential persons to conduct the survey.

An interviewing problem, which has been reported in some surveys in developing countries, is suspicion or superstition about the interviewer's motives. These may include fears about the effects of medical services, changes in taxation policies, and fulfillment of religious prophecies. It is important to be aware of these problems before the survey begins so that measures can be taken to allay respondents' fears.

Another problem in gaining access to sampled respondents is respondent resistance resulting from low opinions of their own status or abilities. Women may wish to defer to their husbands or young adults to their elders.

Confidentiality is generally stressed during the introduction to western surveys. This may not be necessary or even desirable in some developing countries, which do not share western notions of privacy. An extreme example of this problem is illustrated by the Jamaican study, cited above. During the pretest, interviewers were physically threatened in rural areas after stressing confidentiality. The residents did not value privacy and associated the interviewers' concern with witchcraft.

c. Privacy. Although privacy is generally preferable during the interview for most attitudinal and many behavioural questions, it will often not be possible and, in some situations, not desirable. For example, persons other than the sample respondent may be able to provide better information for household income than the respondent. In other situations, opinions may reflect family, clan or caste rather than personal values (Hursh-Cesar, 1976, pp. 329-330).

Although interviewers sometimes may use their ingenuity in getting rid of unwanted third-parties, there will be many situations where it is not possible. Husbands may refuse to let their wives be interviewed in person. The mother-in-law may insist that only she can speak on child rearing. In some situations, household members may be interviewed as a group. In others, local interviewers may have valuable suggestions on how to conduct the interview.

d. Scheduling Interviews. In any cultural setting, it is essential to know when respondents are likely to be available. The study director and supervisors must be aware of respondent work schedules, marketing hours, and times when interviewing may be unsafe. It may also be useful to schedule interviews away from the home at a time and location which is convenient for the respondent, if privacy is necessary for the interview.

6. Other Sources of Information

In this section we have outlined the main issues to be faced in developing field operations. More detailed information on forms and materials to be used in setting up field operations is available in the Altantida series (1965, Series ISPO 1, No. I-F, I-G and I-H). Warwick and Lininger (1975, Chapter 8) has a detailed section on the organization of field work, which reflects methods commonly used in the U.S. Procedures manuals are also available from governmental, non-for-profit and many profit oriented survey organizations.

d. Data Reduction and File Creation

After the interview schedules are completed, they must be edited, coded, and processed. The activities required to reduce the data to machine readable form are summarized below.

1. Completed questionnaires are logged in the project office.
2. There is preliminary questionnaire editing to determine questionnaire disposition -- return to the field for clarification, hold for later decision, pass on to coding staff.
3. Questionnaires are reviewed to determine the consistency and plausibility of response categories according to certain rules in a coding decision-making manual, or codebook.
4. Open-ended or uncoded response categories that could not be anticipated in advance of data collection, are coded, and new coding categories are transferred to the codebook.
5. Intracoder and intercoder reliability checks are made to determine the level of coding consistency and to detect non-random sources of errors for correction.
6. The coded questionnaires are batched for data entry or the data is transferred to coding sheets and then transferred to data entry.
7. The documents are put into computer readable form, usually with verification of some or all documents.
8. The questionnaire data is checked for additional errors against a data cleaning program.
9. Adjustments for missing information may be made and weights applied if the sample was stratified.
10. Analysis files are created.
11. The processing procedures and programs are documented for users.

The procedures for reducing survey data to machine readable form are the same in developing and developed countries. Editing and coding procedures are described in several texts and manuals, including Atlantida (Series ISPO 1, No. I-H, I and J), Warwick and Lininger (1975, Chapter 9) and Hursch-Cesar (1976, Chapter VIII).

The software and hardware for data entry, data cleaning and file creation will vary by project. Guidelines to be used in selecting appropriate systems can be provided by computer system specialists.

e. The Importance of Indigenous Investigators.

As discussed above, it is important for indigenous investigators to participate in the survey design. In some developing countries survey research is an established tradition and the host government, universities, and private organizations will have highly developed survey research capabilities. Other countries will have limited survey capabilities.

However, the conduct of a survey research project in a developing country can make it possible to enhance the research capability of the host country. In some cases, it will be necessary to provide technical assistance in some aspects of survey design. Other contributions could be made in terms of augmenting libraries as a by-product of literature search, teaching classes on survey methods to local staff, sponsoring research seminars, creating sample frames or master probability samples, or augmenting local facilities. This could include the purchase of calculators, data processing equipment, photo copier machines, etc.

As in the case of questionnaire design, discussed above, there is some risk in relying primarily upon "outside" researchers in conducting analysis. Ratcliffe (1976) found evident of systematic analyst biases arising from the foreign analysts' lack of in-depth knowledge and understanding of the cultural environment from which the data originated. He pointed out that the indigenous analyst was more likely to incorporate information into the analysis that was dependent upon cultural knowledge

and was better able to recognize false or spurious relationships.

This does not mean that foreign investigators should not participate in survey design or analysis, but that they should recognize their cultural limitations and that indigenous investigators should have a major role in design and analysis, as well as in survey operations. If the survey is to be let to a contractor, these considerations should be taken into account in awarding and monitoring the survey contracts.

f. Cost of Surveys.

The cost of a survey includes personnel, other direct, indirect (overhead) costs and any fees charged by participating organizations. Unfortunately, the costs of surveys are often underbudgeted by inexperienced survey organizations and even by experienced organizations surveying populations outside their experience or whose responses are difficult to predict. Consequently, it is important for all participating organizations to regularly (e.g., monthly) review project costs and discuss problems that may revise the expected cost or schedule of the survey. These problems may include a greater than expected number of pretests to develop instruments, unexpectedly high screening costs to locate the target population, difficulty in recruiting or training staff, interviewing problems that result in low interviewer productivity or unexpected problems in processing or cleaning the data.

Warwick and Lininger (1975, PP 33-34) have summarized a set of costs that apply to surveys conducted in developing countries. This summary is reproduced here to provide a benchmark for review. However, each survey may have unique costs which must be added to this list.

1. Salaries and other personnel costs

- a. Administrative staff: project director, for general administration and coordination and others as needed for supervising the work in the study. Estimates should include time for planning and reviewing the literature, sampling, questionnaire design and pretest(s), interviewing, coding preparation, editing and coding, consistency checks and "data cleaning" tabulations, analysis and report writing, and publication.
- b. Clerical staff: secretaries, sampling clerks, accountants, record keepers, etc.
- c. Field staff: field supervisors, interviewers, drivers, others needed to collect the data. Budget estimates should allow for training and practice interviews, as well as any field work that may be needed for the sample.
- d. Consultants: general consultation and specialists such as sampling experts and computer programmers needed only in certain stages of the study.

2. Travel costs and living expenses in the field

The travel costs and maintenance of study directors, supervisors, samplers, and interviewers during sampling; pilot tests of the questionnaire; interviewers' training; and actual field work. Estimates should include transportation to group meetings and the costs of maintaining the staff while away from home (per diem).

3. Services

- a. Printing of questionnaire and instructions.
- b. Vehicle operation and maintenance; insurance.
- c. Coding of the data: personnel.
- d. Machine consistency checking and corrections.
- e. Data processing: personnel, computer time or other equipment expenses.
- f. Publication costs: editing, typing, printing.

4. Equipment and supplies

Vehicles (including mileage charges by the staff for the use of their own cars as well as rentals in the field); office equipment; paper; printing the questionnaire and miscellaneous printing and reproduction costs; telephones and other communications expenses.

5. Other costs

- a. Overhead . . . indirect costs of maintaining the buildings, administrative staff, library, auditing, etc.
- b. Publicity for the study; conferences during the planning stages or later to discuss the results.
- c. Transportation of materials and equipment to and from field sites.
- d. Rent for temporary office space during field work.

Interviewing of urban poverty groups is very difficult, in western as well as developing countries. Despite careful budgeting, unexpected problems in the conduct of IIPUP surveys could result in substantial cost overruns in order to salvage the survey. In the U.S., some important surveys of urban poverty groups have resulted in additional costs of as much as 100 percent above the original estimates. Thus program offices should approach the decision to conduct a survey with an awareness of the potential costs and the risks of obtaining incomplete or biased data, and balance these considerations against the potential value of quality data obtained through survey methods.

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