Chapter IV Overview of the implementation of household surveys in developing countries

Paul Glewwe

Department of Applied Economics
University of Minnesota
St. Paul, Minnesota, United States of America

Abstract

The present chapter reviews basic issues concerning the implementation of household surveys in developing countries, beginning with the activities that must be carried out before the survey is fielded: forming a budget and a work plan, drawing the sample, training survey staff and writing training manuals, and preparing the fieldwork plan. It also covers activities that take place while the survey is in the field: setting up and maintaining adequate communications and transportation, establishing supervision protocols and other activities that enhance data quality, and developing a data management system. The chapter ends with a short section on activities carried out after the fieldwork is completed, followed by a brief conclusion.

Key terms: survey implementation, budget, work plan, sample, training, fieldwork plan, communications, transportation, supervision, data management.

A. Introduction

- 1. The value of the information that household surveys provide depends heavily on the usefulness and accuracy of the data they collect, which in turn depend on how the survey is actually implemented in the field. The present chapter provides general recommendations on the implementation of surveys, which include almost all aspects of the overall process of carrying out a household survey apart from questionnaire design.
- 2. One can think of a well-designed household survey questionnaire (and the associated data analysis plans) as representing the halfway point on the path to a successful survey. endpoint is reached through effective survey implementation. Effective implementation begins not when the interviewers start to interview the households assigned to them but months -- and often one or two years -- earlier. Section B of this chapter presents a discussion of the activities that must be carried out before any households can be interviewed; section C describes activities that take place while the survey is in the field; section D provides a short discussion of tasks that must be completed after the fieldwork is finished; and the final section offers some brief concluding remarks. While this chapter provides a useful introduction to this topic, it is far too brief to provide all the detailed advice that will be needed. To ensure that the survey will meet its objectives, the individuals responsible for the survey should consult much more detailed treatments. A good place to start is Grosh and Muñoz (1996): although it focuses on the World Bank's Living Standards Measurement Study (LSMS) surveys, much of its advice applies to almost any kind of household survey. Two other useful references are Casley and Lury (1987) and United Nations (1984).
- 3. Throughout this chapter, it is assumed that the survey is being planned and implemented by a well-organized "core" team appointed for that purpose. It is also assumed that the survey questionnaire will be administered by interviewers who will visit the respondents in their homes and that the sampling unit is the household. Finally, readers should note that the focus of this chapter is on developing countries, including low-income transition economies such as China and Viet Nam. Even so, most of the recommendations also apply to the more developed transition economies of Eastern Europe and the former Soviet Union.

B. Activities before the survey goes into the field

- 4. For any household survey, the first task is to form a core team that will manage all aspects of the survey. Chapter III explains in detail who should be included in the team. After the core team is in place, the following eight tasks must be completed before any households can be interviewed:
 - (a) Drafting a tentative budget and secure financing;
 - (b) Developing a work plan for all the remaining activities;
 - (c) Drawing a sample of households to be interviewed;

In some surveys, the sampling unit is the dwelling, not the household; but in such cases, some or all of the households in the sampled dwellings become the "reporting units" of the survey.

- (d) Writing training manuals;
- (e) Training field and data entry staff;
- (f) Preparing a fieldwork and data entry plan;
- (g) Conducting a pilot test;
- (h) Launching a publicity campaign.

This list of tasks is in approximate chronological order. Each task is described below.

1. Financing the budget

- 5. Financial resources are a serious constraint on what can be done with almost any household survey. The limits implied by this constraint are not necessarily obvious. The first task in almost any survey is to draw up a draft budget based on assumptions about the number of households to be sampled and the amount of staff time needed to interview a typical household. This budget will be approximate because some details of the cost cannot be known until details of the questionnaire are known, but in most cases the draft budget will bear a reasonable resemblance to the final budget (unless the objectives of the survey are significantly altered).
- 6. Once a draft budget has been prepared, the funds required must be found. If funding is uncertain, detailed planning on the survey should probably be postponed until funding is secured. This will avoid wasting staff time in the event that no financing can be found.
- 7. Although it is difficult to say much more about setting a budget without further information on the nature and type of the survey, a few general recommendations can be made. First, an assessment should be made of the capacity of the organization that will implement the survey. If that organization lacks some technical skills -- if, for example, it has little expertise in drawing samples or is characterized by a lack of expertise in using new information technologies -- it may be necessary to hire outside consultants. This could significantly raise the cost of the survey, but in almost all cases the extra cost is clearly worthwhile. Second, a good way to start is to look at budgets of similar surveys already done in the country, or in similar countries. Third, in order to avoid the strain imposed by unexpected costs, a "cushion" of about 10 per cent of the total budget should be explicitly added as an additional budget line item. This item is often referred to as *contingency* costs. In cases where great uncertainty exists concerning costs, a contingency of 15 or even 20 per cent may be needed.
- 8. To make the above discussion more concrete, table IV.1 [a modified version of table 8.2 in Grosh and Muñoz (1996)] provides a draft budget for a hypothetical survey. In this example, it is assumed that the survey will interview 3,000 households, with data collection spread over a period of one year. In addition to a core survey team (see chap. III,) there are four field teams, each consisting of three interviewers, one supervisor and one data entry operator. Two drivers, with vehicles dedicated to the project, will transport the teams to their places of work. It is assumed that each interviewer will work 250 days over the course of the year, interviewing (on average) one household per day. Table IV.1 presents hypothetical salaries for all personnel, as well as hypothetical "travel allowances" given to team members for each day of work in the field. Each field team will have a computer for data entry, and the core survey team will have three data analysis computers. Hypothetical costs are also given for consultants, both

Table IV.1. Draft budget for a hypothetical survey of 3,000 households (United States dollars)

(United States dollars) Item Number Amount of time Cost per unit Total cost													
Item	Number	Amount of time	Cost per unit	Total cost									
Base salaries													
Project manager	1	30 months	800/month	24 000									
Data manager	1	30 months	600/month	18 000									
Fieldwork manager	1	30 months	600/month	18 000									
Assistants/accountant	3	24 months	450/month	32 400									
Supervisors	4	14 months	400/month	22 400									
Interviewers	12	13 months	350/month	54 600									
Data entry operators	4	13 months	300/month	15 600									
Drivers	2	13 months	300/month	7 800									
				Subtotal 192 800									
Travel allowances													
Project manager	1	90 days	30/day	2 700									
Data manager	1	60 days	30/day	1 800									
Fieldwork manager	1	90 days	30/day	2 700									
Assistants	2	60 days	30/day	3 600									
Listing personnel	10	60 days	15/day	9 000									
Supervisors	4	290 days	15/day	17 400									
Interviewers	12	270 days	15/day	48 600									
Drivers	2	270 days	15/day	8 100									
				Subtotal 93 900									
Materials													
Vehicle purchase	2	-	20 000	40 000									
Fuel and maintenance	2	13 months	300/month	7 800									
Data entry computers	4	-	1 000	4 000									
Printers, stabilizers, etc.	5	-	1 000	5 000									
Data analysis computers	3	-	1 500	4 500									
Computer/office supplies	-	30 months	350/month	10 500									
Photocopier/fax machine	1 each	-	2 500	2 500									
•				Subtotal 74 300									
Printing costs													
Questionnaires	3 500	-	2	7 000									
Training manuals	40	-	5	200									
Reports	500	-	5	2 500									
				Subtotal 9 700									
Consultant costs													
Foreign consultants	5	Person-months	10 000/month	50 000									
International per diem	150	days	150/day	22 500									
International travel	8	trips	2 000/trip	16 000									
Local consultants	5 Person-months		3 000/month	15 000									
				Subtotal 103 500									
Contingency (10 per cent)				47 400									
Total				521 600									

Note: Hyphen (-) indicates that the item is not applicable.

international and local. Of course, this table is given for illustrative purposes only: the cost of any particular survey will depend on the sample size, the number of staff hired, their salaries and other remuneration, the supervisor-to-interviewer ratio, the number of households that an interviewer can cover in one day, whether data entry is carried out in the field or in a centralized location, and many other factors. It is presented here to serve as a "checklist" in order to ensure that all basic costs are included in the draft survey budget.

2. Work plan

- 9. After funding has been secured, the next task is to draw up a realistic work plan, which is essentially a timetable of activities from the first stages of planning for the survey until after the end of the fieldwork. He work plan includes each of the following activities: general management (including purchase of equipment); questionnaire development; drawing the sample; assigning, hiring and training staff; data entry and data management; fieldwork activities; and data analysis, processing, documentation, and report writing. For each of these specific areas, a list of tasks to be completed, and the dates of their completion (in other words, deadlines), should be made. Major milestones, such as the pilot test and the first day of fieldwork, should be highlighted. This list, which can often be displayed in a chart, is the work plan of the survey.
- 10. Needless to say, many of these activities are interrelated and thus they must be coordinated. For example, many data management and data analysis activities cannot begin until the equipment needed has been purchased, and the staff that will be carrying them out has been assigned (or hired) and trained. One should also bear in mind that even the best plans must be changed as unexpected events occur. Most plans turn out in retrospect to have been too optimistic, so that delays are common. As much as possible, the timetable for the various activities should be realistic and should include some "down time" that will allow participants to catch up when the inevitable delays occur.
- 11. Figure IV.1 [adapted from figure 8.1 in Grosh and Muñoz (1996)] presents an example of a work plan. The work plan covers 30 months. Asterisks (*) indicate when the different activities take place. The diagram shows that preparations must begin about one year before the survey is to go into the field. The fact that the pilot test occurs in the eighth month implies that a draft questionnaire, trained staff, and a draft data entry program must be ready by that month. The actual fieldwork is set to begin in month 12 and assumed to continue for one year. The work plan also assumes that a draft report will be prepared when half of the data have been collected. Of course, the work plans for any particular survey will differ from this one. This draft version serves as a checklist and shows how the timing of the different tasks must be coordinated.

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¹⁴ This is a general work plan which includes many tasks that must be performed before the fieldwork begins (before any households are interviewed). A more specific "fieldwork and data entry plan" is also needed, as discussed below.

Figure IV.1. Work plan for development and implementation of a household survey

Management and logistics Appoint core survey team								_	Month of Survey														I							
Appoint core survey team		1	2	4	_	_	7	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2 4	2 5	2	2 7	2 8	2 9	3
	1 *	2	3	4	5	6	/	8	9	0	1	2	3	4	5	6	/	8	9	0	1	2	3	4	5	6	/	8	9	0
Purchase computers	+	*				*	*	*	*																				\dashv	
Purchase computers Purchase survey materials		*				*	*	*	т																				+	_
						ጥ	*	*	*	*	*																		\dashv	
Publicity									*	*	*																		_	
Purchase/rent vehicles					*	*	*	*	*																				_	
Questionnaire development																													-	
Set objectives of survey		*	*																										\exists	
Prepare draft questionnaire			*	*	*																									
Meetings on draft questionnaire						*	*																						\dashv	
Finalize pilot test draft questionnaire							*																						\Box	
Pilot test								*																						
Post-pilot test meetings									*																					
Print final version of questionnaire										*																			\Box	
Sampling																														
Set sample design and frame		*	*																											
Draw sample (PSUs)				*																										
Set fieldwork plan				*																										
Listing/mapping of PSUs					*	*	*	*																					7	
																													\exists	
Staffing and training																													\exists	
Select and train pilot test staff						*	*																							
Prepare training manuals									*	*																				
Interviewer training											*																			
																													\top	
Data management																													1	
Design first data entry programme						*	*	*																					\dashv	_
Final version data entry programme									*	*																				
Write data entry manual									*	*																				
Train data entry staff											*																			
Fieldwork												*	*	*	*	*	*	*	*	*	*	*	*						\exists	
																													寸	
Analysis and documentation																														
Draft analysis plan																		*	*											
Analyse first half of data																				*	*								\exists	
Write preliminary report																						*							寸	
Create first full data set																								*	*				\exists	٦
Initial data analysis																										*	*		\dashv	
Final report and documentation																												*	*	*

3. Drawing a sample of households

- 12. In almost all household surveys, there is a population of interest, such as the population of the entire country that is represented by the households in the survey. The process of choosing a set of households that represents the larger population is called sampling, and the procedure for doing the sampling is called the sample design. There are a large number of issues that need to be considered when drawing a sample -- so many that is not even possible to list them all in an overview as brief as this one. See chapters II, V and VI in this volume for detailed recommendations on sampling. An introduction to sampling is provided by Kalton (1983); and much more comprehensive treatments can be found in Kish (1965), Cochran (1977) and Lohr (1999).
- 13. The discussion on sampling in this chapter will be limited to two remarks for the survey team to keep in mind. First, it is sometimes useful to design the sample so that households are interviewed over a 12-month period. This averages out seasonal variation in the phenomena being studied, and it also allows the data to be used to study seasonal patterns. Second, and more importantly, survey planners should avoid the temptation to sample a very large number of households. It is natural for them to want to increase the sample size, especially for groups of particular interest, because doing so reduces the sampling error in the survey. However, in many cases increases in sample size are accompanied by increased "non-sampling" errors due to the employment of less qualified personnel and lower supervisor-to-interviewer ratios. It is quite possible, and perhaps even likely, that reductions in the sampling errors due to a larger sample size are outweighed by increases in the non-sampling errors.

4. Writing training manuals

- 14. Perhaps the most important component of training is the preparation of manuals for all the persons who will be trained: interviewers, supervisors and data entry staff. Separate manuals are needed for each, that is to say, there must be an interviewer manual, a supervisor manual and a data entry manual. The manuals are a critical part of the training, and must be completed before the training begins. More importantly, these manuals serve as reference material when the survey itself is under way and should contain all the information needed for the different types of field and data entry staff.¹⁵ In fact, data analysts often use training manuals to better understand the data they are analysing; this implies that extra copies of all manuals should be produced for use by those analysts. As a general rule, whenever doubt arises, it is better to put the material in question into the manual rather than leave it out.
- 15. Training manuals should explain the purpose of the survey and the basic tasks to be performed by the staff to whom the manual applies. Procedures to be used for unusual cases should also be provided, including general principles to be applied in dealing with unforeseen problems. Manuals should also explain how to fill out any forms that are to be completed as part

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The term "field staff" refers to interviewers, supervisors, and other staff who, to complete their work, travel to the communities where households are interviewed. As discussed below, it is very useful to bring data entry staff as close as possible to these communities. In surveys where data entry staff travel with the field staff, they can also be referred to as field staff, but in other surveys they are not considered field staff. The phrase "field and data entry staff" is used in this chapter to encompass both possibilities.

of the work (this is particularly important for the supervisor manual). Inasmuch as even the best-prepared manuals may have errors or omissions, one or more sets of "additional instructions" should be prepared as needed to supplement the manuals after they have been given to the field and data entry staff.

5. Training field and data entry staff

- 16. In some cases, the organization carrying out the survey will have a large number of experienced interviewers, supervisors and data entry staff. When the new survey is very similar to ones that have been done before by that organization, little time for new training is needed, just a week or two to explain the details of the new questionnaire and some changes in procedures that may accompany the new survey. However, in some cases, the new survey may be quite different from any that the organization has done in the recent past, and in most cases organizations will need to hire at least some new field and data entry staff. In these situations, very thorough training is needed to ensure that the survey is of high quality. For example, newly hired interviewers and supervisors must be given general training before being trained in the specifics of the new survey. In general, such situations will require more than two weeks of training: three or four weeks are usually needed to ensure that the interviewers and supervisors are ready to do their work effectively.
- While the nature of the training will depend on the nature of the survey, a few general 17. comments can still be made. First, the training should include a large amount of practice, using the questionnaire, in interviewing actual households. Second, the training should emphasize understanding of the objectives of the survey, and how the data collected will serve those objectives. Focusing on this knowledge, as opposed to training field and data entry staff to follow rules rigidly without question, will help interviewers and supervisors cope with unanticipated issues and problems. Third, it is best to train more individuals than needed, and to administer some kind of test (with both written and "practice interview" components) to trainees. The results of the test can be used to select as interviewers and supervisors those trainees who achieved a higher level of performance on the test. Fourth, training should be carried out in a centralized location to ensure that all field staff are receiving the same training, and that the training itself is of the highest quality. Finally, it is important to realize that the quality of the training can have a critical effect on the quality of the survey and, ultimately, the quality of the data collected. The entire survey team must give full attention to training and not simply delegate it to one or two members.

6. Fieldwork and data entry plan

18. The actual work of going out to the areas being sampled and interviewing the sampled households is typically referred to as the fieldwork. Since fieldwork should be closely coordinated with data entry, they are discussed together in this chapter. The fieldwork should begin as soon as possible (even less than a week) after the training, in order to minimize any forgetting of what was learned in the training. Before the fieldwork can begin, a very detailed plan must be drawn up that matches the households that have been selected (from the sampling plan) with the interviewers, supervisors and data entry staff who are going to do the work. The survey staff is usually organized in teams led by a supervisor. Each team is assigned a portion of

the total sample and is responsible for ensuring that the households in its assigned portion are interviewed.

19. When developing the fieldwork plan, several principles should be kept in mind. First, adequate transportation must be provided, not only for staff but also for supplies. Experience with household surveys in many countries has shown that the most common logistic problems are securing fuel, oil, and adequate maintenance for vehicles used by the field staff. Second, the fieldwork plan needs to be realistic, the implication being that it should be based on past experience with household surveys in the same country. If a new type of approach is to be tried, the approach should be tested as part of the pilot test (see chap. III for a discussion of the pilot test). Third, the fieldwork plan should be accompanied by a data entry plan that explains the process by which the information from the completed questionnaires is entered into computers and eventually put into master files at the central office. Fourth, for surveys that will be in the field for several months, a break should be taken after the first few weeks to assess how smoothly the fieldwork and data entry are proceeding. 16 It is quite likely that the experience gained in the first weeks will result in suggestions for altering several of the fieldwork and data entry procedures; such changes should be written up and provided to the field staff as "additions" to their manuals, as explained above. Fifth, before the fieldwork plan is finalized, it should be shown to experienced supervisors and interviewers to obtain their comments and suggestions. Finally, the interviewers should be given enough time in each primary sampling unit (PSU) to make repeated visits to the sampled households so that the data are collected from the most knowledgeable respondents; the alternative of obtaining "proxy answers" from another, less informed household member is likely to reduce the accuracy of the data collected.

7. Conducting a pilot test

20. All household surveys should conduct a "test" of the questionnaire design, the fieldwork and data entry plans, and all other aspects of the survey. This is called the pilot test. It involves interviewing 100-200 households from all areas of the country that will be covered by the survey. Since one of the main objectives of the pilot test is to evaluate the design of the questionnaire, this is discussed in detail in chap. III. After the pilot test is finished, a meeting of several days is convened in which the core survey team and the participants in the pilot test discuss any problems identified during the pilot test. The meeting participants must then agree on a final draft of the questionnaire, final work and data entry plans, and any other aspects of the survey.

8. Launching a publicity campaign

21. Household surveys should publicize the start of a new household survey in the mass media in order to raise awareness of the survey and, hopefully, encourage households chosen for interviews to cooperate. Another benefit of publicity campaigns is that they raise the morale of the survey staff. In general, it is not wise to spend large sums on general publicity because the vast majority of households who see the information will not be interviewed in the survey. Yet, in some cases, such publicity can be obtained at almost no cost by contacting television and radio

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¹⁶ This break should take place during an "ordinary" period of time, so that data collection is not interrupted during an important event that should be encompassed by the survey.

stations, newspapers and other mass media organizations. Newspaper stories are particularly useful because interviewers and supervisors can keep copies of them to show to any households that doubt what the interviewers say about the survey.

22. More closely targeted publicity is also useful. This can include leaflets posted in the communities selected as PSUs, as well as letters to the individual households that have been selected to be interviewed. Posted leaflets should be colorful and attractive, and both letters and leaflets should emphasize the usefulness of the data for improving government policies. Letters should also emphasize that the data are strictly confidential; in many countries, particular laws can be cited as guarantees of confidentiality. Finally, local community leaders should be contacted in order to explain the importance and benefits of the survey. After being convinced of the benefits, these local leaders may be able to persuade reluctant households to participate in the survey.

C. Activities while the survey is in the field

23. After all of the preparatory activities have been completed, the actual interviewing of households begins. Each country has a somewhat different way of conducting household surveys. However, some general advice can be provided that should be applicable to all countries (see directly below). It is assumed here that the fieldwork is conducted by travelling teams.

1. Communications and transportation

- 24. Each survey team in the field needs access to a reliable line of communication with the central survey administration in order to report progress and problems, and to provide the survey data to the central office as quickly as possible. Developing countries often have weak communication capacities, especially in rural areas. Yet, in most countries, telephone service has improved to the point that each team in the field can reach a reliable phone within hours, or at most within a day or two. In fact, cellular phones are now becoming very common in many developing countries, although not always in rural areas. One simple option is to provide cellphones to those teams that will be working in areas covered by this technology. For teams in remote areas, satellite phones may be a worthwhile investment.
- 25. Reliable transportation is also crucial to the work of survey teams in the field. The method used will vary from country to country, but at minimum each team should have dependable transportation so that it can move from one area of work to another. Emergency transportation must also be planned for in the event that a field team member becomes seriously ill and needs immediate medical attention. For both regular and emergency transportation, some kind of back-up system must be planned that can be used if the primary system fails. Reliable transportation can serve as a back-up method of communication if all else fails.

2. Supervision and quality assurance

- 26. The quality of work done by interviewers is of crucial importance to any household survey. Assuring quality is not an easy task. Some interviewers may simply not be able to do the work, and others may not put forth their full effort if there are little or no incentives for doing so. The key to maintaining the quality of the work is an effective system of fieldwork supervision.
- 27. The following recommendations will help supervisors to be effective in monitoring and maintaining the quality of the interviewers' work. First, each supervisor should be responsible for a small number of interviewers: no more than five and as few as two or three. Second, at least half of each supervisor's time should be devoted to checking the quality of the work of the interviewers. Third, a relatively short checklist should be developed for the use of supervisors in checking completed questionnaires submitted by interviewers; this will ensure that some basic rules for completing the interviews are being followed in every surveyed household. Each survey questionnaire should be checked with respect to the items on this list, and a written record should be kept of these checks. Fourth, supervisors should make unannounced visits to interviewers for the purpose of observing them at work. This will ensure that the interviewers are where they are supposed to be. In addition, the supervisor should observe the interviewer while he or she is interviewing a household, to verify that the interviewer is following all the procedures taught in the training. Fifth, supervisors should randomly select some households for revisits after the household has been interviewed. Another, more detailed checklist should be prepared for the purpose of conducting a "mini-interview" touching on key points (for example, how many people actually live in the household) so as to make sure that the interviewer has correctly recorded the most basic information on the questionnaire. Sixth, with travelling teams, the fieldwork plan should be organized so that the supervisor accompanies the interviewers as they move from place to place to complete their interviews; after all, very little supervision can be carried out when the supervisor is far from the interviewers.
- 28. Two other recommendations can be made regarding supervision and data assurance. First, serious consideration should be given to entering data in the field using laptop computers, using software that can check the entered data for internal inconsistencies. Any inconsistencies found may be resolved by having the interviewer return to the household to obtain the correct information.¹⁷ Second, members of the core survey team should undertake unannounced visits to the survey teams. These visits are essentially a means of supervising the supervisors, whose work also needs to be checked.

3. Data management

29. A crucial task for any survey is entering the data and putting them into a form that is amenable to data analysis. Most data entry is now performed using personal computers with data entry software. The software should be designed to check the logical consistency of the data. If inconsistencies are found, at minimum the work of the data entry staff can be checked to

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Using laptop computers in the field is not necessarily an easy task. Problems include lack of reliable electricity, computer problems due to dust, heat and high humidity and, of course, the high cost of purchasing many of these computers.

determine whether simple data entry errors are responsible. The introduction of an even better system -- one where the interviewer could return to the household to correct inconsistencies -- would be possible if data entry has been carried out in the field but almost impossible if it has been carried out in the central headquarters of the organization conducting the survey.

- 30. The data management system must operate so that the data arrive at a central location as soon as possible. This is important for two distinct reasons. First, the work done in the first week or the first month should be checked immediately to ensure that there are no serious problems in the data that arrive in the central office. Second, in almost all cases, the sooner information arrives in the hands of analysts and policy makers, the more valuable it is.
- 31. Some more specific advice can also be given regarding data management. First, a complete accounting should be maintained of all sampled households in terms of their survey outcomes as respondents, non-respondents or ineligible units. This information is needed for use in weighting the respondent data records for the analysis. Second, the data entry software program should be thoroughly tested before it is used. An excellent time to test it is during the pilot test of the questionnaire. Third, before providing data to researchers and data analysts, each part of the data set should be checked to ensure that no households have been mistakenly excluded, or included more than once. Fourth, a "basic information" document needs to be prepared and provided to data analysts, so as to ensure that they understand how to use the data. This is explained further in section D.

D. Activities required after the fieldwork, data entry and data processing are complete

32. Once all interviews have been completed, a few more activities are required to complete a successful household survey. All of them usually take place at the central headquarters of the organization that collected the data. The most obvious task is data analysis, which is discussed in detail elsewhere in this publication, but several other important wrap-up activities also need to be performed.

1. Debriefing

33. All supervisors, and if possible all interviewers and data entry staff, should participate in a meeting with the core survey team to discuss problems encountered, ideas to eliminate them in future surveys and, more generally, any suggestions for improving the survey. This meeting should be held immediately after the survey has been completed and before field and data entry staff forget the details of their experiences. Detailed records must be kept of recommendations made so that they can be incorporated when the next survey of this type is planned.

2. Preparation of the final data set and documentation

34. The data from almost any household survey are likely to be useful for many years, and both the agency that collected the data and other research agencies (or individual researchers) may well produce many reports and analyses in later years. To avoid confusion, a final "official"

version of the data set should be prepared which should serve as the basis for *all* analysis by *all* organizations and individuals that will use the data. Ideally, this final version of the data should be ready within two to three months after the data have been collected. Thus, the data collected in the field must be rigorously checked and analysed to uncover any errors and abnormalities that may need fixing, or at least flagging. Of course, some errors might be discovered only after additional months or even years have passed, in which case a "revised" data set could be prepared for all subsequent analysis.

- 35. Any data analyst will have many questions about the data. These may range from mundane questions about how the data files have been set up, to far more important ones concerning exactly how the data were collected. In order to avoid being inundated with requests for clarification that could occupy a large amount of staff time, agencies that collect the data should prepare a document that explains how the data were collected and how the data files have been arranged and formatted. Such documentation will contain descriptions of any codes that are not found on the survey questionnaires, as well as explanations for any cases in which the data collection diverged from the initial plans. Ideally, the document will show how the final sample differed from the planned sample, in other words, how many households either could not be found or refused to participate and (if applicable) how new households were chosen to replace those that had not been interviewed. In addition to this document, the standard "package" of information for any data analyst should include a copy of the questionnaire and all the training manuals.
- 36. A final issue regarding documentation in many countries is translation into other languages. Today, many researchers study countries whose languages they do not read, using translations of questionnaires and other documents. Instead of having many different researchers make their own, perhaps inaccurate, translations, it is usually a good practice to translate all of the materials needed for data analysis into a common international language, the most obvious one being English (other possibilities are French and Spanish). While this is somewhat burdensome, it may be possible to include the cost of this translation in the initial survey budget and request that donors provide funds specifically for this purpose.

3. Data analysis

37. All data are collected for purposes of analysis, so it is hardly necessary to point out that the final activity after the data collection is their analysis. Since many other chapters discuss the issue, this chapter does not do so. The only point to make here is that the overall plan for the survey needs to make a realistic estimate of the amount of time needed to analyse the data, and to build this estimate into the overall timetable for survey activities. Data analysis almost always takes longer than planned, but the findings based on the data are likely to be more accurate, and more useful, the more closely the survey team consults with the individuals who will analyse the data.

E. Concluding comments

38. This chapter has provided general recommendations on the implementation of household surveys in developing countries. The discussion covered many topics, but the treatment of each was brief -- unavoidably, inasmuch as household surveys are complex operations. Because the information provided in this chapter is insufficient for the purpose of thoroughly implementing a household survey, anyone planning such a survey needs to consult other material to obtain much more detailed advice. He or she should read the references cited in the introduction to this chapter; moreover, it is always good practice to discuss the experiences of past surveys in the country in question with the individuals or groups that carried out those surveys. Implementing surveys can be a tedious task, but careful work, attention to detail, and following the advice provided in this chapter can make a dramatic difference in the quality, and thus in the usefulness, of the data collected.

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