Center for Effective Global Action
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Module 3.2: Field Organization and Survey Management

Contents

1. INTRODUCTION

In the previous module we went through the steps required to set up and design efficient and effective survey instruments. We started with understanding exactly what content or questions we needed to inquire about, how to formulate our questions in a way that makes sense without biasing the answers provided to us, and how to properly test the questionnaire to check for issues or mistakes.

In this module we will walk you through an incredibly important component of any impact evaluation/data collection exercise: field work. The project idea could be genius and the survey could be finely tuned, but without a qualified team and a well-structured plan for the field, all of that work could be done in vain. This module will have a section for each of the following topics: (1) Field staff selection and training, (2) Fieldwork organization, and (3) Control of Non-Response. We will devote the final section to the specific problems posed by panel surveys.

The responsibility of collecting data is frequently delegated to data collection firms. Data collection is seen as disconnected from the design and analysis of an impact evaluation, which are typically the primary concerns of researchers and academics. However, the organization and supervision of data collection activities should be an integral part of the project's design, methodology, and analysis. In the end, whether your data is of high or low quality can be the deciding factor in whether the impact evaluation holds any validity.

To illustrate this issue, let´s look at an example case in Yemen. The 2006, the Yemen integrated survey had a high questionnaire, with a solid consumption module in addition to others including health, education, income, and energy. The sampling design was solid as well, collecting information from up to 14,400 households which, according to the fieldwork plan, would be collected in blocks of 1,200 households each month. Data entry, too, was swift. Taking advantage of the data entry stations used for the census, the data were entered and cleaned just weeks after field work ended. All of these processes show an impressive data collection performance.

When we were asked to conduct the first analysis, we found that as the months of data collection progressed, fewer cases of illnesses, accidents, and chronic diseases were reported. Indeed, a simple tabulation of time in the field measured by months, and the frequency of these variables' occurrences in the households showed that cases of illnesses/accidents and chronic diseases totalled 1,645 and 705, respectively, in the first month of data collection, and then dropped to 693 and 464 in month 12. Similar trends were also found in other variables, such as household reporting of agricultural activities, number of crops reported, and households reporting of livestock activities. Were we observing the impact of a successful health intervention, or maybe an epidemic receding? In fact, these were all indicators of poor fieldwork. In reality, it turns out that enumerators were underreporting these illnesses/accidents and chronic disease cases because in order to report these indicators accurately, they needed to spend more time with the respondents, asking them additional question modules. To avoid this work, the

enumerators did not ask the respondents about these indicators and skipped the additional modules, leading to the underreporting.

This is only one example of the type of event that not only could affect the quality of the collected information, thereby biasing the conclusions of the impact evaluation. This is the reason why fieldwork deserves *as much planning and surveillance* as the design and analysis of any impact evaluation.

2. FIELD STAFF SELECTION AND TRAINING

The starting point of any sound data collection strategy is the selection and training of field staff. The first stage in choosing staff should be a pre-selection of candidates, with consideration of CVs and face-to-face interviews; the final selection should be made on the basis of how candidates performed during training. Consideration should be given during the pre-selection stage to any gender-specific requirements and fluency in local languages. In what follows, we propose a series of guidelines for this process.

2.1 Pre-Selection of Trainees

- ✓ **Number of candidates:** more candidates than necessary should be recruited in order to have hiring flexibility after training as well as a reserve in the event of enumerator attrition. Often, after the final selection is conducted (and even after data collection has already started), some enumerators and other field staff may refuse to participate in the project. The reasons may vary, but often they report not being able/willing to comply with the schedule, unwillingness to visit or spend extended periods of time in the geographical areas where data collection will occur, or unwillingness to perform the role they were selected for (enumerator/data-entry/field/office) or even to work with their assigned team/group.

- ✓ **Background characteristics:** as a minimum, fieldworkers are normally expected to have secondary level education. It can also useful to set a maximum educational level, at least informally. Highly-qualified professionals very seldom make good field interviewers; they find the work uninteresting and unchallenging, and they are likely to abandon the survey project before it is completed, as soon as a better opportunity presents itself. Field teams should comprise male and female interviewers. In many countries, women interviewers have better access to households than men and have lower non-response rates. In some countries, cultural or religious reasons dictate that women respondents can only be interviewed by interviewers of the same gender. In countries where more than one language is spoken, preference should be given to multilingual interviewers, especially to those who speak prevalent minority languages. It may also be desirable to ensure that a variety of languages are spoken within each team, so that the interviewers don't need to resort to interpreters. There are many problems associated with the use of local interpreters.

- ✓ **Work conditions:** Before beginning the training process, make sure that candidates understand the survey context and working conditions: e.g. unusual working hours, extended data collection period (often in remote settings), and inclement weather. Many candidates respond to the hiring call without recognizing the realities of the data collection process, which can lead to attrition during or after training, wasting the training investment. The conditions of the data collection exercise should be explained and clarified before any training or hiring.

- ✓ **Final Selection:** The final hiring selection should not be made until after the training course has concluded. Seeing how potential field staff members deal with practical work during training is a reliable indicator of how they will approach their real tasks during the survey. However, it is not the only factor that should be considered. Successful candidates should also be assessed on an objective basis, such as using a test which measure their understanding of the training and how well they will apply what they have learned. Develop tools to test candidates' familiarity with the survey, how to ask certain questions, how to explain the interview to respondents in a way that avoids bias, and how to conduct themselves in the field. If your survey will be using any electronic data collection tool, also test each candidate's aptitude with the instrument itself. This can have the secondary benefit of alerting you to problems in your survey instrument.

Real World Example – Recruitment Horror Stories

On one occasion, in Peru, 90 enumerators were needed. Due to the unemployment rate, a total of 1,000 candidates expressed interest in the project, including doctors and engineers. The preference, then, was to hire the best qualified individuals. However, this decision was problematic for two main reasons. On one hand, the overqualified applicants were applying to the position as a last resort, and as a result, many were demoralized and demotivated. On the other hand, overqualified candidates were more prone to quit, as they tended to be actively looking for superior employment. The consequences of this bad decision were large in terms of both time and financial cost..

50 percent of the candidates selected for training as interviewers with the 2004 Nepal LSMS withdrew before the survey went into the field. They had not realized until training was underway that they would be required to go outside the capital city and talk to people face-to-face!

2.2 Training

Perhaps the most underestimated aspect of survey management, training should occur over the course of weeks, not days. Training is key to collecting good and accurate data in the field, and contrary to common thought, even experienced enumerators should be trained for each new project. Indeed, hiring interviewers with experience in many other surveys may not always be the best idea. Personnel too familiar with other projects begin new projects with preconceived notions that may not fit the new project's intentions. For example, income and consumption modules differ according to each project, and using experienced enumerators may necessitate training them to unlearn how to capture some information.

Ideally, training should comprise three kinds of activities: (1) Lectures, (2) Small group sessions, and (3) Field practice.

- ✓ In the lectures, the audience listens to a principal speaker who explains the main goals, concepts and definitions underlying a questionnaire module, and goes through the questions one by one. For instance, a session focused on the health module could be led by a public health specialist who explains the difference between chronic and acute illnesses, the structure of the national health system, the normative preventive health and immunization programs, and other important background information, as well as how they are addressed in the questionnaire. These sessions can bring together a large number of trainees – perhaps a hundred or more—but they permit little interaction between the trainer and the trainees.
- ✓ Small group sessions consist of mock interviews, vignettes, and other types of classroom exercises. Mock interviews are typically conducted by two trainers, one acting as a respondent and the other as an interviewer; the latter records the answers on a copy of the questionnaire projected onto a white board while the trainees fill out their own paper questionnaires. These may be followed by short exercises in which the trainees take turns interviewing each other. Vignettes are predefined textual descriptions of households, which the trainees can use to complete more questionnaires at home or in the classroom, possibly as graded quizzes.
- ✓ The dynamic of the group sessions should allow the enable participation of as many trainees as possible. In contrast to lectures, they should be facilitated in small groups of around 20 trainees. Since two trainers are needed in each group, a well-defined program of interviewer training will typically require a previous "Training of Trainers" (ToT) operation.
- ✓ Field practice, in which trainees interview real households under actual field condition, is an essential part of the training plan. Classroom exercises do not make up for the usefulness of field practice; by emulating a real interview, field exercises test their command of the survey. Have your enumerators practice on respondents that are similar to target population of the study and under conditions similar to those they will experience in the field during actual data collection. Have the enumerators actually fill out the survey, but be sure to be clear with respondents that their responses will not be used in future analysis. Facilitators should join the enumerators so that they can identify questions or modules that require further clarification.

Logistics for the three training activities can be daunting: it is necessary to find a suitable venue for both lectures and small group sessions exercises[1] and provide catered meals as well as facilitate the field exercises, identifying the location, transportation arrangements, sensitization work, households listing, and selection of several facilitators to accompany the enumerators and provide constructive feedback.

In addition to these general recommendations, trainers also have to be trained in order to make sure they all communicate the same message. Doubts arising in one classroom should be communicated to the others, and answers to different questions should be the same in all classrooms in order to preserve the integrity of the data-collection process.

2.3 Selection of Staff

Training sessions should also include several quizzes to test candidates' command of the survey instrument. Ideally, set aside some time to review the answers and ameliorate doubts. In this sense, the quizzes can serve as additional training exercises. As discussed above, the performance on these tests/evaluations should also serve as criteria to identify and select field staff.

Two more comments are worth mentioning in this section. (1) Intuitively, it seems that the candidates with the highest quiz grades would be considered as supervisors, with the next-best quiz grades being assigned as enumerators, but this role assignation may not be optimal. It is often better to keep the most qualified personnel as enumerators in order to collect better data—especially with more complex surveys. (2) When defining the composition of the field teams, you should try to keep them balanced skill-wise: in order to avoid introducing enumerator bias on the data collection process by grouping together the most qualified personnel, you should double-check that field teams have, on average, the same quality using their average evaluation grades.

3. FIELDWORK ORGANIZATION

3.1 Field Teams

The most illustrative way to look at fieldwork is through the analogy of a military operation, in which people with different skills are arranged into independent and self-sufficient teams, each accountable to their superior officer. These field teams become the basic units of data collection, and fieldwork should be organized around them. Field teams should be relatively small, between two and four people, so that they can drive around together in a single vehicle.

[1] In some specific projects, additional venue requirements might arise. For example, training sessions in gender and anthropometric topics may involve certain dynamics, materials, tools and equipment that demand additional space/requests.

The team is normally made up of some enumerators and a supervisor, but additional personnel could join the teams, not only due to their specialized skills (e.g. nurses that perform biological measurements), but also for credentials, credibility and ethical approval (protection of human subjects). One of the flaws of the first implementation of *Oportunidades*, the cash transfers program in Mexico, was that enumerators and nurses, who had to perform basic anthropometric measurements, were organized in different teams; that is, each group had their own field plan and schedule, and they also were accountable to different managers. It was like having two separate vertical armies with two independent chains of command that did not always agree. Eventually, unified teams, including enumerators, supervisors and nurses, were formed.

3.2 Role of the Team Leader

The team leader (sometimes referred to as the "supervisor") has two broad functions, one of which is evident and widely understood by national statistical agencies and survey firms: dealing with logistics and finance, meeting the local authorities and "selling" the project to them, identifying the households to be interviewed and deploying interviewers, persuading the heads of households to provide the information needed by the survey, and so forth.

A second function, less well understood and defined, is that of quality control. There are several ways to control the quality of the interviewers' work:

- ✓ Interview observation: that is, observing household interviews as they are conducted to ensure that the instructions in the manuals and the recommendations given during staff training are being followed.

- ✓ Reviews of completed questionnaires: have all the household members been properly recorded, and have all sections been completed for all individual members? Do the responses appear to be consistent? It is important for the Team Leader to perform these reviews every day. The longer they wait, the greater the chance that enumerators won't remember answers to specific questions about their records. Moreover, if a household needs to be re-surveyed because of an error, there will be greater waste of resources if the team has already relocated to a different area.

- ✓ Reviewing printouts of errors generated by the data-entry program (if integrated field-based data-entry is used).

- ✓ Check-up visits (sometimes called "spot checks"): that is, re-visiting randomly selected households and repeating parts of the interview with them. Comparing the responses the supervisor obtains during the check-up visit with the ones originally collected by the enumerator ensures that the enumerator has been collecting data accurately. Check-up visits should be conducted to test the performance of all enumerators.

- Note: when creating a version of the survey to be used during check-up visits, the Team Leader should use mainly those questions from the survey that generate responses that won't change day-to-day. This will prevent the Team Leader from interpreting differences between the original and the check-up as indication that the enumerator is performing poorly.

The team leader also has some specific technical tasks. She must ensure that all households in the sample location are correctly listed (if this has not already been done). She must make sure that the households are correctly identified, in accordance with the rules given by the sample designers.

She must store and protect collected data according to the security standards outlined in the project's Instituional Review Board (IRB) submission. Finally, she is responsible for transmitting or sending the collected information to the survey project's central offices.

3.3 Operational Strategies for Data Entry and Quality Control Checks

Many household surveys still consider data entry and editing as activities to be conducted in central locations, after all of the surveys have been brought back from the field. An increasing number of surveys, however, have integrated data entry into the data collection process and field operations. Centralized data entry was the only available option before the emergence of portable computers, and it is still used today in many surveys. It treats data entry as an industrial process, to be conducted in centralized data entry workshops after the end of the interview process. The objective of the operation is to convert the raw material (the information on the paper questionnaires) into an intermediate product (machine-readable files) that needs to be further refined by means of editing programs. In this sense, data entry operators are not expected to think about what they are doing, but rather to just faithfully copy the data given to them.

On the other hand, the integration of data entry into field operations is almost always carried out with portable computers that can be programmed with quality control checks, although this capability is underutilized (we will return to this in Module 3.3). In general, data entry in the field is preferable to data entry in centralized offices, which delays the quality control check process. In addition, on-site data entry may allow the generation of partial databases that will be ready for tabulation and analysis even as the survey is conducted, thus giving the survey managers the ability to effectively monitor field operations.

In-field data entry requires various considerations, mainly (1) the composition of the field teams, which will require a data entry operator in addition to the enumerators and supervisor, and (2) the organization of the survey. The organization of field operations will depend on the technological options available and will normally entail either:

- ✓ Having the data entry operator work with a desktop computer in a fixed location (generally a regional office of the statistical agency) and organize fieldwork so that the rest of the team visits

each survey location (generally a primary sampling unit) at least twice, so as to give the operator time to enter and verify the consistency of the data between visits. During the second and subsequent visits, the enumerators will re-ask questions where errors, omissions or inconsistencies were detected by the data entry program.

- ✓ Having the data entry operator work with a notebook or tablet computer and join the rest of the team in its visits to the survey locations. The whole team stays on location until all the data are entered and certified as complete and correct by the data entry program.

Both options have external requirements that need to be carefully considered by the survey planners and managers. One of them entails ensuring a permanent power supply for the computers, which may be an issue in poorly electrified countries. If desktops in fixed locations are used, this may require installing generators and ensuring that fuel for the generators is always available. If mobile notebooks are used instead, this may require the use of portable solar panels.

Some Data Entry History

The first field-based data entry experience was in 1984 in Ivory Coast, followed by Peru the next year. Before these two cases, it was inconceivable to enter data in the field, simply because personal computers (PCs) were non-existent. Data entry was thus completely detached from fieldwork. It wasn't until the 1980's, with the appearance of the PC's, that any data integration to the field was possible. Each field team had its own PC, and it was in a fixed regional office where the data entry operator had to work. The operator was also part of the field team, and as such was accountable to the supervisor. Each survey location was visited twice, with an approximate two week interval. Enumerators and supervisors visited all households within the location during the first week (A). At the end of this week, the field team used to go to the regional office, where the data entry operator would receive the paper questionnaires from that week. The rest of the field team then proceeded to move to the following survey location (B). During the third week, the field team would go back to location A in order to complete missing questions and correct any inconsistencies and mistakes found in the work of the first week. Meanwhile, the data entry operator would be inputting data from location B. In 4 weeks periods two survey locations were completed.

During the 1990's, with the appearance of laptops, the data entry operator was also part of the field team, but accompanied the rest of the team as they moved within and across survey locations. Now, each survey location was only visited once and the operator entered the data in the vehicle itself or in her accommodation. With this new work scheme, a new problem arose: how to guarantee energy supply for the laptops. Interestingly, this challenge was frequently resolved by (1) using the vehicle battery, or in cases where there were no vehicles for team transportation, as in Nepal, (2) carrying portable solar panels, which were heavy. In the case of Nepal, field teams carried a suitcase specifically designed for the data collection. The baggage contained two portable solar panels, a motorcycle-like battery, laptop, and portable printer. In order to carry the suitcase, and sometimes also to serve as translators, two more people joined the field team. This procedure was also used in Argentina, but instead of laptops, desktops were transported with the vehicle.

In both schemes, data delivery to central offices was through diskettes sent at the end of every week.

In early 2000, implementation of a new strategy began: enumerators themselves entered their own data. Daily work plans were organized in such a way that they had time to conduct the interviews and input the data, which is highly efficient. In 2011, a survey in Iraq chose to collect information this way, and each enumerator had his/her own laptop (though they were not taken to the field). Questionnaires continued to be collected in paper format and data entry was done in the afternoons.

3.4 Fieldwork Strategy

Fieldwork is organized through (1) a survey plan and (2) a work plan. The survey plan stipulates which team visits each location when. The work plan specifies what the team does in each location and how long it takes. Both plans work together, but each has to be conceived differently. In general, it is better to have both ready and harmonized with a stable timetable; although in practice, unexpected events happen; contingency strategies must be identified ahead of time in order to avoid severely modifying the original timetable.

3.4.1 Work Plan

Organizing who does what in each location goes far beyond conducting the interviews and filling out the surveys. When coordinating what each team does in each sample location and how long it takes, you need to consider:

- ✓ The number of interviews per sample point.
- ✓ Geographical scattering within sample points. The work plan should take into account the geographical dispersion of the sampling units (e.g. households, firms, or health/education facilities) that will be visited in each sample location. Normally, this dispersion is not too large, but there are some exceptions. [2]
- ✓ Household-listing operation, if applicable. Households to be interviewed can be selected from a listing operation in each sample location chosen for the study. This listing (essentially a census) is an exercise independent from and prior to the data collection process. Once concluded, central offices select which households the field-teams should interview randomly from that list. This is a sound (albeit expensive) strategy to choose sample households. If a list of all households cannot be obtained prior to data collection (due to time or resource limitations), the field-team can do the listing itself first, and then select the households in the field. This simultaneous strategy is less costly than the first, but may involve perverse incentives biasing analysis, as field teams may exclude from the listing the largest, farthest or minority households. This risk can be minimized by strongly stating the need for enumerators to list every single household and to interview whichever households are randomly identified for interview. Good field supervision is necessary to reduce the chances of this approach introducing biases.
- ✓ Quality controls to be implemented in the field.
- ✓ Biometric and cognitive tests, area measurements, etc., if applicable.

[2] Small dispersion is a result of the sampling strategy adopted by most household surveys: the sample is selected in two stages using census enumeration areas as Primary Sampling Units (PSUs). PSUs tend to be relatively small, and comprise groups of households that are generally within a walking distance.

- ✓ Interview duration, number of visits, and correction visits.
- ✓ Other questionnaires (e.g. a price-level survey)
- ✓ Resting time.
- ✓ Travel to the next sampling point

Bring overly optimistic or overly pessimistic should be avoided when organizing the working plan. Both types of extremes are often observed. The optimistic scenario is commonly adopted after piloting the questionnaires. Analysts tend to observe the length of the questionnaire, how long each section/module takes, and add up the times to calculate a time estimate for collecting the data. This simple arithmetic rarely works in the field, because it is wrongly assumed that all the interviews can be conducted with a single visit to each household. Not all households are the same size, and very often some household members are absent during the interview (like wage earners are frequently absent from home during working hours). Normally teams have to reschedule further visits in order to complete the questionnaire and collect the data for all the household members.

On the other hand, the pessimistic scenario assumes the worse—that very large households will be very far away from each other It is best to strike a balance between these two imaginary scenarios when planning the data-collection process.

Real World Example – A Work Plan for Niger's 2007 Household Budget Survey (HBS)

The figure below summarizes the tasks of the Team Leader, the three interviewers, and the data entry operator in surveying nine households in the 2007 HBS Survey in Niger. It follows a plan of nine visits to each household, and indicates the sections of the questionnaire which should be completed during each visit. In this case, Day 1 is devoted to listing all the households in the sample location; at the end of the day, in line with the defined selection procedures, the team leader selects the households which are to be interviewed, and then shares them among the three interviewers. Every day, one or more sections of the questionnaire are completed, according to the plan. From Days 3 to 9, the household's consumption during the previous day is recorded, so that a week's diary is kept. Day 11 is devoted to re-visiting all the households where the data-entry program is still picking up errors and inconsistencies. The team leader and the data-entry operator are responsible, on Day 12, for transmitting to headquarters the files of all the interviewed households.

Day	Team Leader (CV = Control Visit)									Interviewer 1			Interviewer 2			Interviewer 3			Data Entry Operator
	HH 1	HH 2	HH 3	HH 4	HH 5	HH 6	HH 7	HH 8	HH 9	HH 1	HH 2	HH 3	HH 4	HH 5	HH 6	HH 7	HH 8	HH 9	
1	Enumerating all households in the sample point Selecting the cluster of 9 households to be interviewed																		
2	CV1			CV1			CV1			Visit 1: household roster, sections 2-3									Enter Visit 1
3		CV1			CV1			CV1		Visit 2: start diary, sections 4-5									Enter Visit 2
4			CV1			CV1			CV1	Visit 3: diary 2nd day, sections 6-7									Enter Visit 3
5	CV2			CV2			CV2			Visit 4: diary 3rd day, sections 8 and 17									Enter Visit 4
6		CV2			CV2			CV2		Visit 5: diary 4th day, sections 9-10									Enter Visit 5
7			CV2			CV2			CV2	Visit 6: diary 5th day, sections 11-12									Enter Visit 6
8	CV3			CV3			CV3			Visit 7: diary 6th day, section 13									Enter Visit 7
9		CV3			CV3			CV3		Visit 8: diary 7th day, section 14									Enter Visit 8
10			CV3			CV3			CV3	Visit 9: rechecking diary, sections 15-16									Enter Visit 9
11	Acompanying re-visits to the most problematic cases									Re-visiting to fix remaining errors									Finish
12	Transmitting data to headquarters Resting and transferring to the next sample point																		

The data-entry operator transcribes the information collected by the interviewers every day. The error reports obtained at the end of each data-entry session are revised by the team leader and the interviewers; inconsistencies which need to be clarified with the household are added to the tasks of the following day's visit. As this calendar shows, the team leader must conduct control (check-up) visits to the indicated households. Control visits, as discussed above, are one of the principal tools for ensuring the quality of the information collected.

3.4.2. Survey Plan

The survey plan consists on coordinating who visits each location and when. For this exercise, you need to consider:

- ✓ Time spent by each team at sample locations (determined by the work plan).
- ✓ Number of sample locations (determined in the sampling design).
- ✓ Total time available for fieldwork. How much time do you have to collect the data?
- ✓ Spatial and temporal distribution of the sample.
- ✓ Number of field teams.
- ✓ The calendar of the evaluated project, which often needs to account for the pressure imposed on the implementing agency to launch an intervention project as soon as possible.
- ✓ External constraints such as weather, holidays, festivals, security issues, etc.

When designing a survey plan, the practitioner always faces a difficult dilemma: should the survey be fielded with few fieldworkers over a long time period, or with many fieldworkers over a short period? Simple arithmetic (e.g., if 20 interviewers can visit a sample of 1,000 households in 4 months, then 40 interviewers will visit the same sample in 2 months), simply doesn't work here for three main reasons:

- ✓ First, because – as we have discussed before – finding and training many interviewers is much harder, as well as longer and more expensive, than finding and training fewer of them.
- ✓ Second, interviewer quality declines as the number of interviewers increases, since the market of possible interviewers shrinks.
- ✓ Third, because effective quality assurance becomes much more difficult when field operations occur more quickly. This issue will be discussed in more detail in Module 3.3, but in short, if data collection is conducted over a very short period, shortcomings may be detected only when it is too late to implement corrective actions.

As a general rule, you should try to plan ahead and stretch the data collection period as much as possible. Although this can seldom be done in impact evaluation surveys, spanning a 12-month period brings about the added benefit of capturing the seasonality of the observed phenomena.

Organizing fieldwork in unsafe contexts poses additional challenges. This is less common nowadays than it was thirty years ago – when, for instance, surveys in Peru had to deal with Shining Path activity in many regions—but the presence of organized gangs can still be an issue in urban environments, especially in Central America.

Excluding potentially-dangerous areas from the scope of the survey is not ideal, because it causes selection bias. A better alternative – successfully used by surveys in Iraq, Afghanistan and Nepal—is to take advantage of the intrinsic fluidity of insecurity, making the survey plan adaptable to the situations. For example, in the Iraq Socio-Economic Household Surveys of 2007 and 2011, when a team was unable to visit a sample location in the originally scheduled week, that sample location was swapped with another sample location not yet visited by the team, chosen at random, and the original visit was rescheduled for a later time. Other solutions may depend on the specific context; in some recent evaluations in El Salvador, the data collection firm designated very knowledgeable and experienced staff – locally called "palabreros" ("word sayers") to directly approach gang leaders in order to coordinate the data collection procedure with them according to both the firm and the local safety circumstances. Nepali interviewers essentially used the same approach in Maoist-controlled areas, explaining to them that they likely need the survey data after their political ascent – which was indeed the case.

The allocation of survey locations among field teams is generally conducted on the basis of language and geography. In this way, each team ends up with its own "territory." If two or more teams share the same territory, it is better to randomly allocate the survey points among the teams than to give each team its own sub-territory. The sub-samples so defined are known as inter-penetrating samples. This approach (first used by Mahalanobis in India in 1946) can help monitor the quality of the field teams, because significant differences between the answers recorded by two teams that share the same territory are likely due to fieldwork management.

3.5 Controlling Non-Response

Non-response is a serious matter that may jeopardize survey data quality, and should be addressed during fieldwork. There are many reasons for non-response, and some of them can be addressed by the designers of the survey. For example, a well-trained interviewer will recognize when a respondent is tired or preoccupied, and can arrange to return to the household on a later occasion – assuming, of course, that the survey designers have allowed enough time in each sample point for such return visits.

3.5.1 Proxy Answers and Non-Response

Accepting "proxy answers," when one member of the household responds on another's behalf, is not a solution to non-response. As we discussed in Module 3.1, proxy answers are always less valuable and less desirable than answers from the target respondent.

Household interviews are not single events with a clear beginning and a defined end. Indeed, there are many reasons why an interviewer might have to return to the same household. Perhaps a key respondent is not at home when the interviewer first visits. Perhaps the household members have things to do and ask the interviewer to finish the interview another day, or perhaps the respondents (or interviewers) are just tired.

In order to avoid or minimize proxy answers, the interviewers may need to revisit a household many times in order to speak with specific respondents when they are at home. All of these factors have an effect on non-response, which may be increased if the interviewer is unable (or unwilling) to return to the same household.

3.5.2 Avoiding Non-Response

Safeguards against non-response should be built into the planning of every household survey. There are several things which should always be done during fieldwork to reduce non-response:

- ✓ Ensure that interviews are conducted in the language of the household,
- ✓ Monitor how interviewers react in the face of non-response, and ensure that their reactions are documented,
- ✓ Allow enough time for field operations in each sample point – in other words, define a realistic work plan,
- ✓ Enlist the support of the local authorities,
- ✓ Recruit female interviewers; women often have lower non-response rates, and women interviewers might be required to interview other women.

3.5.3 Motivation Strategies

Some household motivation strategies have been demonstrated to give consistently positive results. For example, delivering letters or leaflets to all the sampled households, in advance of the survey going into the field, explaining what the survey is about and how they have been selected, tends to decrease non-response.

Free publicity for the survey is often good – for example, coverage in TV news bulletins, perhaps linked to other announcements being made by the national statistical agency. Paid-for media coverage, however, is not usually worthwhile, since only a small proportion of the audience will belong to a household in the sample. It is a better use of resources to target publicity at the households which will actually be interviewed.

Material incentives are not always effective as motivational tools, mainly because financially well-off households – the socio-economic group most likely to refuse to participate in the survey – are the ones which are least likely to be swayed by gifts or payments. Rewarding households with cash payments is especially problematic:

- ✓ It creates an extra administrative and logistical difficulty for the team leaders – obtaining cash, distributing it to the interviewers, keeping account of its disbursal, returning any surpluses to the project headquarters, and so forth.

- ✓ It is unlikely to change the participation of rich households, which are the least likely to participate in the study.
- ✓ It can set a bad precedent, with people expecting to be paid for participating in any survey, opinion poll or census.

However, small gifts, branded with the survey logo, can be used as incentives to participate or tokens of appreciation after the interview has been completed. Some ideas are:

- ✓ t-shirts or caps bearing the survey logo
- ✓ Pens or small notepads
- ✓ Kitchen clocks

If that is not possible, food staples are also effective in some regions, such as:

- ✓ Oil
- ✓ Sugar
- ✓ Tea

Whatever the incentive is, you must be sure that it is unrelated and will not affect the intervention or activities you're attempting to measure. For example, do not give hand-soap to respondents when you are measuring a hand-washing intervention.

In some surveys, interviewers leave the scales with the household after they have weighed the food consumed. CDs containing statistical information from previous surveys in the country can be a useful incentive for better-off households.

3.6 Panels and Time-Series

Panel or time series data collection, or baseline and follow-up surveys for the same cohort of observations in different points of time, has become an increasing prevalent practice. Indeed, many impact evaluations rely on panel studies. However, collection of this type of data poses several challenges, the most important being the need to re-contact the same households in subsequent survey rounds.

The inability to fully achieve this objective is called *attrition*. Attrition is partly due to objective realities (such as households moving out or refusing to collaborate) and partly due to the difficulties of managing this type of data collection in the typical organizational context of impact evaluation projects (like difficulty to keep a core staff for many years, bad documentation, and lost files).

The second kind of problem must be explicitly addressed if a panel is intended:

- ✓ An explicit strategy to record re-contact should be carefully designed. The necessary information to contact the household is often poorly recorded. In some other cases the information is collected but not entered into the databases, or the survey firm does not share it (so that you have to hire them again in the follow-up survey). The obvious implication is that the data collection firm's Terms of Reference should clearly state that the firm must entry and deliver this information.

- ✓ Follow-up survey contact success depends on the contact information collected and registered, and this is not always clear and obvious. For example, gathering cell phones numbers has been dodged due to omission or alleged security issues, but evidence from the Dominican Republic and El Salvador has proved that it possible to register this information and that such registration improves re-contact rates.

In panel surveys intended to be conducted over several years, some conceptual and practical issues need to be addressed at the design stage:

- ✓ Given the natural dynamics of demographic phenomena, operational definitions are needed to specify when a given group of people can be considered to be the same household that was visited in previous survey rounds (for instance, if the former household head died and the widow remarried, or if one of the children has married and becomes the new household head.)

- ✓ Explicit strategies should be defined to deal with household bifurcations (also known as "split-offs"), resulting from divorce a child's household formation. Is the survey going to follow both of them?

- ✓ Explicit strategies should also be defined to deal with households (or split-offs) that relocate, but can be tracked as a result of adequate re-contact protocols. Three different situations can be conceived, and each deserves a specific approach: (1) households that move within the original locality (but possibly out of the narrow boundaries of the original primary sampling unit), (2) households that move to the capital city or another large metropolitan area, and (3) households that move to another non-urban location in the country or abroad. The first situation can be addressed with the same operational setup described in this module, by simply having the field team responsible for the location interview the household at its new (nearby) dwelling; researchers must account for the extra time this will require in the team's work plan. The second situation may be addressed by way of a specialized metropolitan team, with a work plan different from that of the other teams, since the households that move to the metropolis will not be as conveniently clustered as the others. Tracking households in the third situation is unavoidably onerous, and some surveys may decide to explicitly exclude them from their scope. Alternatives may be to track a sample of them, or to request basic information from them through a telephone survey.

Telephone surveys are beyond the scope of this module, and are indeed very rare in the context of impact evaluation. The little empirical evidence that exists indicates that they can be a very valuable and cost-effective way of recording follow-up information. It also appears that most of the knowledge and experience about telephone surveys from developed countries does not apply to the Latin American context. Latin Americans seem, at least for now, very willing to answer phone surveys (unlike, for instance, survey participants in the United States), especially if they are rewarded with instant credit for their cell phones.

4. BIBLIOGRAPHY/FURTHER READING

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