

Sampling

INITIAL DATA PROCESSING

National dissemination

Fieldwork

Questionnaire

Pretest **Data entry**

Initial contact

Flow Chart of Steps to Conduct a Health Facility Assessment

International Health Facility Assessment Network

QUESTIONNAIRE REVIEW

Table production

Final data entry

Prepare for pretest

Main report **Training**

Further dissemination

Preliminary report

Flow Chart of Steps to Conduct a Health Facility Assessment

International Health Facility Assessment Network



June 2008

MS-08-28

MEASURE Evaluation is funded by the U.S. Agency for International Development (USAID) through Task Order GHS-I-00-07-00002-00 and is implemented by the Carolina Population Center at the University of North Carolina in partnership with Constella Futures, John Snow, Inc., Macro International Inc., and Tulane University.

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Acknowledgments

This document was drafted in accordance with the recommendations of participants at the MEASURE Evaluation Capacity Building Workshop organized for monitoring and evaluation specialists on the state-of-the-art health facility assessment and data demand and information use in the health sector tools in New York, NY, USA, in September 2007.

The document adapts content materials from an original template used in Service Provision Assessment surveys, as implemented by MEASURE DHS.

The document was written by Alfredo Fort of MEASURE DHS/PATH and Bolaji Fapohunda of MEASURE Evaluation/JSI. The International Health Facility Assessment Network (IHFAN) is grateful to them and the reviewers, particularly Nancy Fronczak and Stephen Settimi.



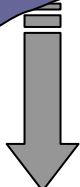
Introduction

The present flow chart is a step-by-step guide — in visual form — of key stages in the preparation and conduct of a health facility assessment (HFA). It has two parts, the first being a short presentation of the actual stages, the people involved in them, any documentation available for more details, and any special considerations.

The second part is a narrative description of issues related to each stage, and information to help the reader understand how each stage is connected to the preceding and subsequent stages.

Finally, there is a selected list of reference materials for further information. The flow chart is intended for anyone interested in the general planning, design, conduct, analysis, and presentation of an HFA, for policy-making, program management, or research purposes. However, it is by no means exhaustive nor meant to resolve all questions a prospective user might have on the topic.

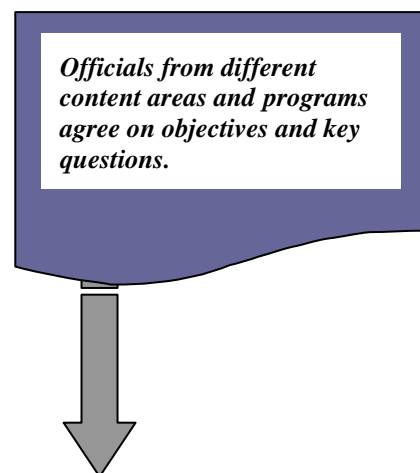
Flow Chart of Steps to Conduct a Health Facility Assessment*

	Documentation Required or Used	Required Staff	Additional Comments
<p><i>Survey objectives?</i> <i>Geographical scope?</i> <i>Scope of assessment?</i> <i>Funding sources?</i> <i>Implementing agencies?</i></p> <p>Step I — Initial Contact</p> <p><i>During this initial step, important issues are addressed (e.g. survey objectives).</i></p> <p><i>Depending on how these emerge, other initial steps include:</i></p> <ul style="list-style-type: none"> <i>budget preparation</i> <i>logistical details</i> <i>sampling strategy</i> <i>data use planning</i> <i>work plan presentation</i> <i>steering committee setup</i> 	<ul style="list-style-type: none"> △ <i>Training Guidelines for DHS Surveys¹</i> △ <i>Profiles of Health Facility Assessment Methods²</i> △ HFA budget templates △ PowerPoint presentation templates △ Questionnaire templates 	<ul style="list-style-type: none"> △ Senior program officer (with HFA experience) △ HFA country team: HF survey coordinator/ director, MOH director at national level, district health management team lead at the district level (if relevant) △ Subject matter specialists, e.g. HIS specialists, M&E specialists △ MOH and international TA, subject matter program specialists familiar with national strategies (if relevant) △ Representatives of NGO/PVO sector health programs 	<ul style="list-style-type: none"> △ Clearly identify objectives and methodologies of survey △ Ensure buy-in AND substantial participation by the MOH (main user of findings) △ Identify steering committee membership △ May need expert technical assistance

* Adapted from original template as per the Service Provision Assessment (SPA) implemented by MEASURE DHS, December 2007.
A detailed description of each step begins on page 9.

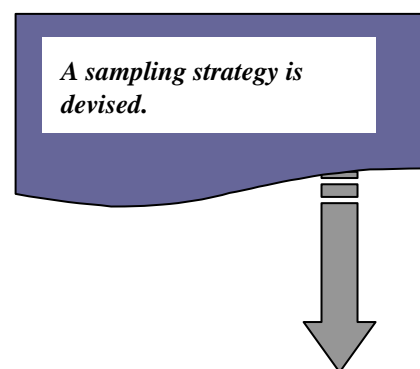
	Documentation Required or Used	Required Staff	Additional Comments
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Step II — Questionnaire Adaptation/Development



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|--|---|---|
| <ul style="list-style-type: none"> △ HFA core indicators and guidance △ In-country guidelines and protocols, training courses in last 3 years △ Essential drugs list △ Specific program descriptions △ Questionnaire templates △ Model contracts | <ul style="list-style-type: none"> △ Program officer or research specialist with experience in questionnaire construction △ Subject matter specialists identified in step I | <ul style="list-style-type: none"> △ Step can lengthen if interested parties add many modules; must adapt question by question keeping objectives in mind △ May require expert technical assistance |
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Step III — Sampling




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|--|--|---|
| <ul style="list-style-type: none"> △ Updated listing of <u>all</u> eligible facilities, by geographical area and managing authority | <p>Sampling specialist(s), required only if sample survey; not required if census.</p> | <ul style="list-style-type: none"> △ Critical step; often requires <u>separate</u> exercise in sending teams/communicating to regions to update listing △ May require expert technical assistance |
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	Documentation Required or Used	Required Staff	Additional Comments
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Step IV — Preparations for Pretest


While the questionnaire adaptation is finalized, preparations for a pretest get underway.



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|--|---|--|
| <ul style="list-style-type: none"> △ Job descriptions (interviewer, supervisor, editor, etc.) △ Job advertisements △ Questionnaire printing | <ul style="list-style-type: none"> △ Program officer with HFA experience. △ HFA country team: △ Survey logistic and technical manager △ Data management supervisor △ Survey implementation staff: △ field supervisors △ data collectors (teams) △ data entry and questionnaire edit staff | <ul style="list-style-type: none"> △ Questionnaire may require translation to the local language △ Training for data collection, data entry, and editing |
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Step V — Pretest of Questionnaires, Manuals, Procedures, and Fieldwork

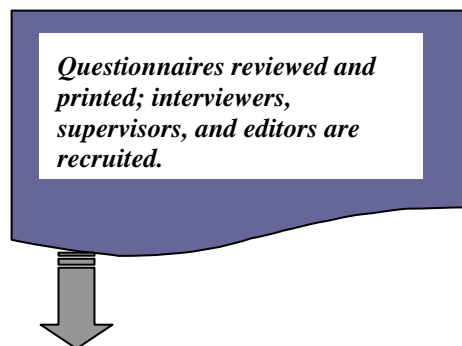
Pretest checks whether translation (if applicable) and adaptation of questionnaires and manuals are appropriate; and whether fieldwork procedures are understood and properly followed.



- | | | |
|--|----------------------------|---|
| <ul style="list-style-type: none"> △ Questionnaires (updated) △ <i>DHS Interviewer Manual</i>³ △ <i>Demographic and Health Survey Supervisor's and Editor's Manual</i>⁴ | <p>Same staff as above</p> | <ul style="list-style-type: none"> △ May require expert technical assistance △ Pretest in variety of types of service settings/facilities |
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	Documentation Required or Used	Required Staff	Additional Comments
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Step VI — Final Questionnaire Review and Fieldwork Preparation

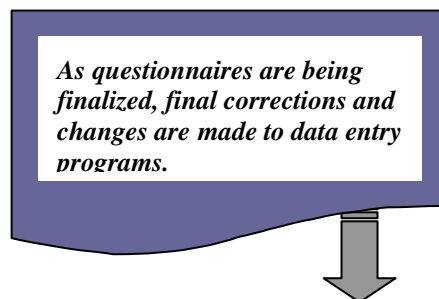


- △ Job descriptions (interviewer, supervisor, editor, etc.)
- △ Job advertisements
- △ Questionnaire printing

- △ Program officer with HFA experience
- △ HFA country team

Intensive step: staff recruitment can be complex (e.g. contacting, traveling from remote areas, contracts, etc.). Unlike household surveys, health facility-based data collection is new. As such, cadre-specific scope of work (SOW) must be developed and negotiated with all field staff in order to ensure that they fully understand their roles. Survey directors are to keep copies of the SOW to facilitate effective supervision.

Step VII — Data Entry Programming, Set Up, and Training



- △ Data entry/programming manuals
- △ Tab plans and analysis plans

Data processing team (e.g. IT specialists, data entry programmers, database managers, data entry clerks).

May require expert technical assistance.

	Documentation Required or Used	Required Staff	Additional Comments
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Step VIII — Main Training and Fieldwork Initiation

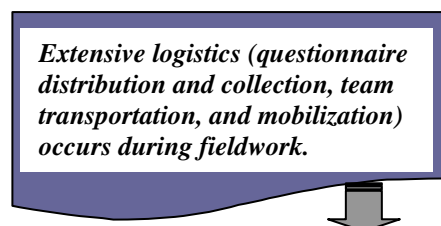


- △ Questionnaires (updated)
- △ *DHS Interviewer Manual³*
- △ *Demographic and Health Survey Supervisor's and Editor's Manual⁴*

- △ Program officer with HFA experience
- △ HFA country team

May require expert technical assistance.

Step IX — Fieldwork

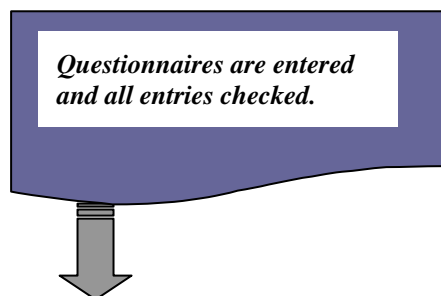


Above materials, plus field monitoring logbooks, etc.

- △ HFA country Team
- △ Survey implementation staff

Critical step; needs substantial supervision.

Step X — Data Processing Initiation

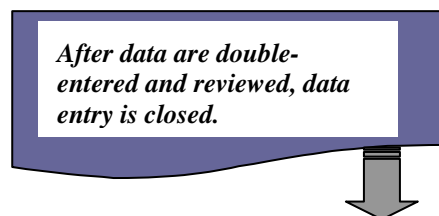


- △ Data processing team
- △ HFA country team and subject matter specialists to review comments and clarify responses where editors identify a need

- △ Data entry can start soon after first batch of questionnaires has been completed and edited
- △ May require expert technical assistance

	Documentation Required or Used	Required Staff	Additional Comments
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Step XI — Data Entry Finalization



- △ Data processing specialists

- △ Critical period; data are reviewed for completeness and consistency
- △ May require technical assistance

Step XII — Table Production and Analysis

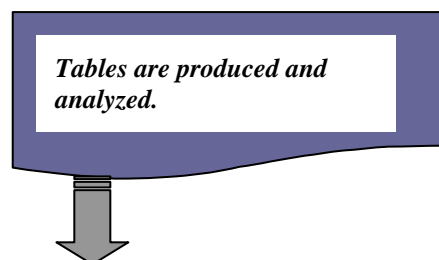


Table outputs.

- △ Program officer with HFA experience
- △ HFA country team

Table analysis should be interpreted through local context and programs.

Step XIII — Preliminary Report Writing

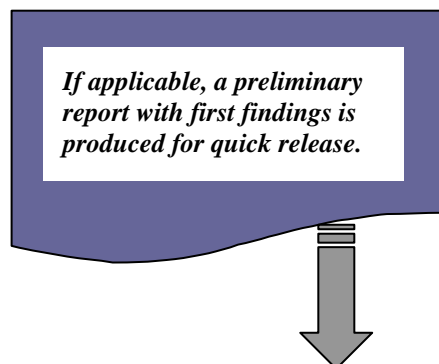

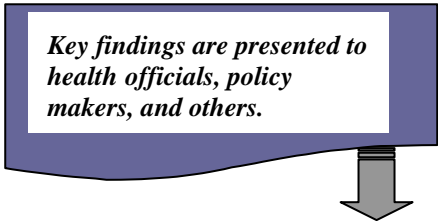
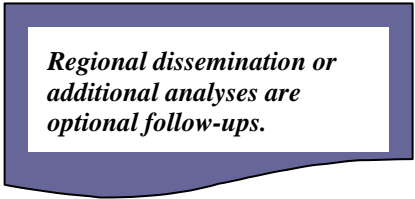


Table outputs.

- △ Program Officer with HFA experience
- △ HFA Country Team; Subject matter specialists

Local specialists should be enlisted as “authors” of topics/chapters, including representatives from MOH (or program in the case of a program-focused survey), important for final buy-in of assessment findings.

	Documentation Required or Used	Required Staff	Additional Comments
Step XIV — Main Report Writing, Editing, and Printing			
 <p><i>Report written by country subject matter specialists.</i></p>	<p>Draft of main report.</p>	<ul style="list-style-type: none"> △ Program officer with HFA experience △ HFA country team; subject matter specialists △ Editors 	<ul style="list-style-type: none"> △ Representatives from MOH important for final buy-in of assessment findings △ Printing costs can be expensive △ May require expert technical assistance
Step XV — National Dissemination			
 <p><i>Key findings are presented to health officials, policy makers, and others.</i></p>	<ul style="list-style-type: none"> △ Main report △ Invitations △ Press release, etc. 	<ul style="list-style-type: none"> △ Program officer with HFA experience △ HFA country team 	<p>Detailed work is involved (e.g., venue hire, presentations preparation and delivery, logistics). Workshops or meeting to extract and use data for policy-making or self assessment are recommended at the district and facility level.</p>
Step XVI — Further Dissemination, Data Analysis, and Use			
 <p><i>Regional dissemination or additional analyses are optional follow-ups.</i></p>	<ul style="list-style-type: none"> △ Main report △ Special tables △ Specially produced publications 	<ul style="list-style-type: none"> △ Program officer with HFA experience. △ HFA country team △ Analysts △ MOH director at national level, district health management team lead, and facility in-charge at the national level 	<p>Additional workshops or meetings to extract and use data will help to specify issues for further analysis of data.</p>

Key to Health Facility Assessment Steps

Step I — Initial Contact

During the initial contact or design visit, the senior program officer with health facility assessment (HFA) experience enquires about the objective of the survey and the public health areas it is to address. For example, subject matters are determined in this step, such as specific maternal and child health care (MCH) content, HIV/AIDS, and any special module to be included (e.g. national health accounts, malaria, etc.). Time lines for critical steps (e.g. data collection, dissemination) are also discussed.

During this stage, other important issues are defined: geographical scope (regions, provinces, zones to be represented); administration authorities to be included (public, private, NGOs, faith-based organizations); types of facilities/service outlets to be assessed; funding sources, amounts, and requisites are negotiated; and what implementing organizations will be involved (e.g. ministry of health (MOH), national statistical office, private contractors). It is strongly advised that the implementing organization be the MOH; if regulations or other conditions dictate that a different institution lead the survey, such as the national statistics office, every effort should be made to ensure key and substantial participation by the MOH. Full participation of a MOH representative on the HFA country team is critical. This may be the HFA team technical manager.

Depending on above negotiations, at the end of the visit a budget for local costs (and technical assistance) expenses is drafted, logistics and human resources requirements are specified, a preliminary sampling strategy is presented, and a general plan for dissemination and use of data is discussed. A steering committee should be set up, comprised of implementing organizations (e.g., MOH) and other national and international donors or partners (e.g. United Nations agencies); it should oversee all remaining steps and activities. A final presentation should be made to the steering committee on the above, including a work plan of activities. The steering committee agrees on a schedule of future meetings.

Prior to this visit, country teams should review the *Profiles of Health Facilities Assessment Methods*.² This document describes most of the existing methodologies; by reviewing it, a country team is better able to select the assessment method, as well as have a clearer understanding of the type of data to be expected. A Survey Organization Manual would help describe all steps and procedures to be used in the survey. Budgets, Microsoft PowerPoint, and questionnaire templates assist presentations and negotiations on the scope and cost of the survey.

The need for assessment should originate from interested countries. However, where this need is not yet expressed, demand generation mechanisms such as promotion or information, education, and communication (IEC) strategies to highlight the importance of facility assessments to strengthen health information systems (HIS) should be put in place. This will help

ensure that an expressed demand for data by the national institutions, particularly the MOH, forms the basis for data collection.

Step II — Questionnaire Adaptation/Development

Officials from different content areas and programs need to come together to agree on the objectives key questions to be answered. These officials should review template questionnaires where available, determine which questions will respond to their objectives and key questions, and adapt these so that the country situation is accurately reflected. In a national level survey, this may require external technical assistance (TA). In-country guidelines and protocols for the providers of health and specific program descriptions (e.g. emergency obstetric care, prevention or treatment of sexually transmitted infections, etc.), organized training courses for different types of providers, essential drugs list, etc. are obtained to adapt the model questionnaire. Often, international standards of care (e.g., standards endorsed by the World Health Organization [WHO]) are used in defining areas of inclusion. For most surveys, templates are already available. Even when surveys might be content-specific and for small projects, existing questionnaires already used and validated offer a good starting point.

This is also the period where – if applicable – subcontracting with the implementing agency takes place. If applicable, a bid or competition among potential implementers is carried out. Selection and contracting of agencies occur at this point.

A document of importance for review at this stage is the Health Facilities Assessment Technical Working Group's core indicators guidance.⁵ The core indicators identify a minimum set of facility attributes for describing the status of the health facilities; country teams can elaborate from this list, depending on needs. Review of in-country guidelines and essential drugs is important for country teams to understand the required performance standards for providers as well as the content of services.

Another document for potential use at this stage is the *Signature Domain and Geographic Coordinates: A Standardized Approach for Uniquely Identifying Health Facilities*.⁶ Developed in collaboration with WHO, this tool details seven data elements, including the geographic coordinates obtained using global positioning system (GPS) receivers, which should be collected for properly identifying health facilities. The ability to identify a particular health facility uniquely in a survey is vital. Unique identification allows proper analysis and use of HFA data, particularly when comparing data across survey approaches or timeframes. The tool also provides a standardized format for each of the elements to ensure that they are comparable, as well as a core set of “best-practices” for collecting GPS coordinates in a standardized way.

Confidentiality and consent guarantees are important. It is imperative that the terms of a confidentiality agreement are communicated clearly to all relevant parties, and that agreement terms are adequate to prevent a breach confidentiality.

Step III — SAMPLING

Once the general assessment design is done, a sampling strategy is devised. An updated listing of *all* eligible facilities (by type, by administrative authority, and geographical location) is required. Also known as the sampling frame, this list is usually obtained from the MOH, but complemented from faith-based or private and parastatal organizations. A multistage sample plan, based on probability sampling principles, is utilized to select study units from the universe. The stages are determined by the constellation of levels of services as well as the distribution of health facilities within each level or stratum. When a multistage sample plan is used, sample weights are used to correct for sample size bias, and these weights are mathematically derived by sampling experts. While no sampling is required in a health facility census, a list of all facilities and their addresses is needed to guide the identification of health facilities by the field teams.

Step IV — PREPARATIONS FOR PRETEST

While the questionnaire adaptation is finalized, preparations for a pretest get underway. With job descriptions for different cadres (interviewers, supervisors, questionnaire editors, etc.), advertisements start in local papers and other media. Also, printing a set of questionnaires and manuals for the pretest is done. During preparation for the pretest, a data processing specialist sets up the programs for data entry, cleaning, and quality check tables. This is an opportunity for capacity building and training of local programmers.

Step V — PRETEST OF QUESTIONNAIRES, MANUALS, PROCEDURES, AND FIELDWORK

The pretest checks whether translation (if applicable) and adaptation of questionnaires and manuals are appropriate; whether procedures for fieldwork (e.g. informed consent, approaching in-charges and interviewees, flow of modules, etc.) are understood and put in practice. The latter part of the pretest includes substantial practice and actual testing of all forms and procedures in real-life situations in a sample of facilities that reflect the service situations that will be encountered in the final assessment. This includes large and small facilities, complex and simple facilities, and service delivery settings. The sample should be selected prior to the pretest so that pretesting occurs in facilities that will not be a part of the full assessment. If pretest facilities are included in the assessment (e.g., for a census), careful editing and correction of pretested questionnaires is needed so that the information is valid for data entry. Outstanding individuals during pretest can become supervisors for the assessment fieldwork. The pretest also provides an opportunity to test the data entry programs.

Step VI — FINAL QUESTIONNAIRE REVIEW AND FIELDWORK PREPARATION (INCLUDING STAFF RECRUITMENT)

Questionnaires are reviewed and printed. Interviewers, prospective supervisors, and editors are recruited. It is important to ensure that those who are hired are familiar with the health system and programs. A combination of medical staff (e.g., public health nurses), and non-medical staff (e.g., social scientists) is advisable.

The participation of social scientists is most useful in large surveys, where heavy reliance on essential medical staff may make them unavailable to provide services for several months. Social scientists can be properly trained to collect reliable data from health-worker interviews, exit interviews, and a few aspects of the facility inventory/audit modules. Observation of the interactions between clients and health workers is reserved for the medical staff. Vehicle hire contracts and other logistics (e.g. training venue hire, questionnaire printing) are carried out.

Step VII – DATA ENTRY PROGRAMMING, SETUP, AND TRAINING

At the same time that questionnaires are being finalized and logistics for the main training and field work are being organized, final corrections and changes are being made to the data entry programs.

Step VIII – MAIN TRAINING AND FIELD WORK INITIATION

Main training with all hired staff and support staff (e.g. administrative assistants) takes place. All questionnaires are read and reviewed question-by-question. Subject matter specialists (e.g. specialists on maternal health, immunization, etc.) can participate to provide background information and to clarify issues in training related to expected equipment, supplies, and standards to be found in facilities, as well as issues related to capturing accurately the presence of equipment, supplies, and standards and to address other quality issues. The latter part of the training includes substantial practice and actual testing of all forms and procedures in real-life situations in a sample of facilities not included in the main sample.

Once training is completed, fieldwork teams are formed and fieldwork organization is discussed (e.g. routes and schedules, location maps, etc.). Depending on the size and complexity of the survey, each team can be formed of three to five individuals who will carry out assigned tasks (e.g. inventory/audits, observations, client interviews). Each team usually has a leader who reviews all forms for completion and accuracy before leaving the area. Fieldwork starts soon after the training is completed.

Step IX – FIELDWORK

Fieldwork starts soon after the training; teams are simultaneously deployed according to plan; and supervision occurs at all levels (from team leaders, and from regional and central levels), with intensity in first weeks. Completed questionnaires are reviewed on-site, before leaving the area, and at central locations; feedback to teams (e.g., via cell phones) occurs frequently. Questionnaire editing is done in the field. Office editing is conducted to ensure that all questionnaires were completely filled out and all filters and skip patterns were correctly observed.

Step X – DATA PROCESSING INITIATION

Data entry starts after the first week of data collection; first tables of completeness of forms by regions and interviewers are produced to spot inaccuracies and inconsistencies, prompting focused supervision and corrective actions, if necessary. Technical supervisors may

be needed to review comments written in the questionnaires by data collectors that require clarification to ensure that the correct response is captured.

Step XI – DATA ENTRY FINALIZATION

Once all questionnaires are entered (double entry) and all entries are checked for accuracy, completeness and consistency, the data processing specialist “closes” the data entry stage, producing tables and statistics summarizing fieldwork and producing first statistics.

Step XII – TABLE PRODUCTION – ANALYSIS

Tables are produced according to the tabulation plan developed at the outset and checked by the data processing specialist, survey director, and program specialist. Once the tables have been produced, writing the first (preliminary) report begins.

Step XIII – PRELIMINARY REPORT WRITING

If applicable, a preliminary report with first findings is drafted and produced, for quick release of most important information. It forms the basis of the main or final report.

Step XIV – MAIN REPORT WRITING

The main report is written by country subject matter specialists and, as relevant, with technical assistance. This may happen through individual contributions or a specially designed workshop with technical assistance, in order to standardize writing styles and processes.

Step XV – NATIONAL DISSEMINATION

When the main report is ready for printing and distribution, a national dissemination is organized. Main findings are presented to health officials at the central and peripheral levels, policy makers, country implementation team, and members of the steering committee, as necessary.

Step XVI – FURTHER DISSEMINATION/DATA ANALYSIS AND USE

This step is optional. If country officials or members of the steering committee are interested, there can be regional dissemination of findings. Additionally, further analyses can be carried out with local researchers through workshops and technical meetings, in order to produce special reports or peer-reviewed publications, as appropriate.

Data are broken down by region or type of facility, and content specific officials and regional officials analyze special tables to find out areas in most need, review resources needed (e.g. funds, vehicles, equipment, training) to improve weak areas, and agree on a work plan for changes.

Glossary of Terms

Managing authority is the authority in charge of a facility. This is typically subdivided into public, private-for-profit, private-not-for profit (e.g. NGOs), and faith-based (e.g. a religious mission) groups.

Program officer with HFA experience is an officer who has been involved in one or more steps in the planning, designing, conducting, or data analysis of an HFA.

Sampling strategy or simply “sampling” is the type of sampling and steps needed to produce an appropriate sampling design for the HFA (e.g., if sampling will be simple random or cluster-based; monoetapic or multietapic; what level of precision is desired, etc.). Steps can vary from listing of all facilities to assigning weights to selected units.

Steering committee is a national-level committee made of representatives from the government (e.g., from MOH, statistics office), HFA implementing organizations, NGOs or private voluntary organizations (PVOs), international donor and technical assistance (TA) organizations, and other representatives from civil society as appropriate.

Subject matter specialists are specialists from academia, medical/biological or program areas with expertise on a particular subject matter (e.g. specialists in HIV/AIDS, gynecology and obstetrics, child immunization, etc.).

Type of facility, also referred as the “level” of facility, distinguishes whether a facility is a hospital, health center, dispensary, health post, etc. Categories are country-specific.

Staff Descriptions

Data processing specialist is a person specializing on all aspects of data processing: data entry programming, setup, quality control and closing; generation of data results: e.g. frequencies, unweighted and weighted tables.

Data Entry Team (Step VII) includes the following positions:

Information technology (IT) specialist
Data entry programmers
Database managers

These are the same people (perhaps the database manager is actually the “data entry manager” who supervises the data entry clerks).

Data entry clerks also called “data entry operators,” are people experienced in keying in box codes from questionnaires into an electronic data entry system (e.g. SPSS, Epi Info, CSPro).

HFA country team (Step I and Step IV) includes the following positions:

HF survey coordinator/director is the person with overall responsibility for all aspects of the HFA, from initial coordinations to report writing and dissemination of results.

MOH director at the national level could be the director of health services or equivalent.

District health management team lead is the leader of a district health management team (DHMT), who usually is the chief medical officer or a chief public health nurse.

Survey logistic and technical manager (Step IV) is in charge of everyday operations, including the vehicle and questionnaire printing logistics, ensuring appropriate return of questionnaires to the central office, etc. (duties that are apart from the overall HF survey coordinator/director position).

Data management supervisor (Step IV) is the same position on the data entry team listed as “database manager” (see above).

Survey implementation staff (Step IV) includes the following positions, some of which are organized into field teams (each field team includes data collectors or interviewers, a field supervisor, and a questionnaire editor):

Field supervisors are in charge of ensuring appropriate introduction to selected facilities, data collection flow, solution to common problems (e.g. interview refusals, questionnaire re-supply), and completion of data collection in a facility.

Data collectors, also called *interviewers*, are responsible for completing all forms and questionnaires.

Data entry clerks are also part of the data entry team (described above) and are not part of the field teams.

Questionnaire editors: review every completed questionnaire/form to ensure appropriate completion, including filling in blanks, correct response interpretation, coding and follow-up of skipping instructions.

Report editors (Step XIII) are people who edit the report to ensure correct grammar, style, and consistency in the use of standard terms with the report text and graphics.

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