



USAID
FROM THE AMERICAN PEOPLE

THE DEMOGRAPHIC AND HEALTH SURVEY CAPACITY ASSESSMENT TOOL

This publication was developed with support provided by the United States Agency for International Development (USAID) through The Demographic and Health Surveys Program (#AID-OAA-C-13-00095). The views expressed are those of the authors and do not necessarily reflect the views of USAID or the United States Government.

The DHS Program assists countries worldwide in the collection and use of data to monitor and evaluate population, health, and nutrition programs. For additional information about The DHS Program contact DHS Program, ICF International, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; phone: 301-407-6500, fax: 301-407-6501, e-mail: reports@dhsprogram.com, Internet: www.dhsprogram.com.

GUIDELINES FOR THE ASSESSOR(S)

The **CAPACITY ASSESSMENT TOOL (CAT)** has been designed to evaluate an implementing organization's capacity and readiness to implement The DHS Program suite of surveys, namely the DHS/AIS/MIS and the SPA surveys and disseminate the results in-country. The objective of the CAT is to assess the capacity of each implementing organization to design, plan, collect, analyze and disseminate data following international standards of quality and methodological soundness. Results of the CAT will enable each implementing organization to quantify performance gaps and determine capacity strengthening needs and priorities. The CAT comprises 12 modules, 11 of which cover core competencies along the DHS and SPA survey continuum, namely, survey planning and management; sampling; questionnaire design and testing; field staffing and training; field operations; data processing; laboratory testing (in DHS/AIS/MIS only, where applicable); report writing; GIS; data analysis; data dissemination and one that examines overall institutional capacity of the organization.

Please note that all reference to DHS surveys includes the DHS, SPA, AIS and the MIS.

Please read the scoring system carefully prior to conducting the assessment. Score the activities of the module(s) for which you have the most information. Put **n/a** for activities for which you do not have enough information or for those that are not applicable. Each module has a column for additional comments; use this to further explain your score(s), as needed.

THE SCORING SYSTEM:

1 The implementing organization has very little capacity: Counterpart has only minimal or no capacity to conduct the activity and needs technical assistance for all elements of the activity, including getting organized to conduct the activity, implementing it and managing it. This is typically the case when capacity for particular functions is very low or non-existent.

2 The implementing organization can participate in the activity: Counterpart can undertake the straightforward elements of key functions but needs a high level of supervision and guidance through technical assistance. The activity will still need to be carried out and managed mainly by The DHS Surveys Program staff.

3 The implementing organization is capable of carrying out this activity with technical assistance: Counterpart has the capacity to take prime responsibility for the activity, can handle most of the complex aspects of the activity and knows when they need to ask for assistance. The role of technical assistance is mostly to provide support and oversight, and fill-in where there are any remaining gaps in capacity, and provide extra guidance and support mostly for the development of new materials, and handling of new, infrequent or unforeseen situations.

4 The implementing organization is capable of carrying out this activity at appropriate level of quality on its own: Counterpart is now fully competent to satisfactorily undertake and complete the whole function. They may still use an international expert for highly technical work or for validation, advice or oversight, but do not need assistance on carrying out any aspect of the activity.

I.	Planning and Management- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Create and implement a realistic survey timeline including enforcing accountability for delays		
b	Prepare and implement a realistic local budget for the DHS surveys		
c	Engage stakeholders in developing a financial plan for the DHS surveys		
d	Establish a survey Steering Committee (including secretariat support) to guide, validate, and provide oversight to survey activities		
e	Manage and enforce accountability mechanisms regarding survey budgeting, management and implementation		
f	Monitor expenditures for major operations, such as planning and preparatory work, data collection, data processing, analysis, publication, quality control, and general administration and operational services, and include detailed cost estimates of all equipment, facilities, and supplies		
g	Monitor and regularly report on survey operations to ensure they are proceeding according to plan		
h	Manage scheduling, reporting, and quality control for survey operations in a timely manner		
i	Develop a Memorandum of Understanding (MOU) with key stakeholders to implement survey		
j	Clearly delineate the roles and responsibilities for all partners for each activity		
k	Make funds available for survey activities when needed and in a timely fashion		
l	Develop plans for securing all needed survey-related infrastructure (eg: space for staff to work and storage for equipment)		
m	Clear equipment through local customs in a timely manner		
n	Implement knowledge management program, which documents the success, challenges, and possible adaptations of survey materials and protocols so that the experience gained can be utilized for future planning purposes		
o	Develop and implement a system for tracking domestic and international technical assistance for surveys (including a clear scope of work, deliverables, and outputs identified prior to commencement of technical assistance activities)		
	Total score		

2.	Sampling and Listing- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Set up and maintain a mechanism for securing expertise in sampling, including sample size determination for each domain of analysis based on sample efficiency and logistical feasibility to enable a cost effective survey design and sample design.		
b	Develop and maintain tools for sample selection, for both primary sampling unit (PSU) selection and secondary sampling unit (SSU) selection, with stratification and probability proportional to size (PPS) selection, including the calculation of probabilities of selection at each stage		
c	Maintain and update sample frame from the most recent population census (or, if no census, other reliable source) for use in selecting samples for various surveys. For facility-based surveys, such as the SPA, coordinate with the appropriate department(s) within the ministry of health to create a master list of health facilities for sampling purposes		
d	Use the sample frame for sample selection for DHS surveys or SPA surveys including for the calculation of sampling probabilities		
e	Develop/adapt training materials for training survey staff in sampling		
f	Train staff in survey sampling, in sampling theory, sampling concepts, and mathematical statistics (e.g. basics of sampling, sample size determination, sample allocation, sample selection, sample points updating)		
g	Assess feasibility of the master sample for survey purposes (e.g. determine if the master sample design can support the survey design requirements related to survey domain, stratification, and sample size)		
h	Produce written documentation for data users on all aspects of the survey sample design including details of sampling methodology, target population, study domains, stratification and clustering, calculation of sampling probabilities, correction of non-response, and calculation of survey weights		
i	Correct for non-response and calculate sampling weights for multistage complex surveys, calibrate sample weights, normalize sampling weights, etc. for analysis		
j	Develop and maintain software and techniques for sampling error calculations, for simple statistics and complex statistics during analysis		
k	Develop and maintain a sampling frame (a list of enumeration areas or a list of administrative units, etc.) covering the whole country, checked for coverage, consistency and coding, including basic geographical/administrative classifications and a measure of size		
Total score			

3.	Questionnaire Design- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Engage appropriate stakeholders (subject matter experts from MOH, CSO or any other governmental institution) during development of survey questionnaires		
b	Identify and secure relevant subject-matter experts for: demographic issues (e.g. fertility, mortality), family planning, malaria, HIV, nutrition, water and sanitation, child health and maternal health, and other health issues to review the questionnaires		
c	Understand the types of questions that are appropriate for inclusion in household or facility-based surveys (e.g. content matches method), and those that are not (e.g. sample size issues).		
d	Ensure questionnaires follow internationally accepted standards for wording of questions and response categories in order to adequately measure concepts		
e	Balance respondent and interviewer burden with efficient collection of desired data (for example, limit the number of questions so that respondents and interviewers will not get tired and give/collect bad data)		
f	Format questionnaires in a consistent, coherent manner, following conventions, for ease of use and check and correct skip and filter errors		
g	Translate questionnaires including forward translation and independent back-translation, and make revisions to translated questionnaires to resolve discrepancies in translation		
h	For electronic data capture (CAPI): 1) conduct content usability testing to verify questionnaire flow is properly programmed into the devices; 2) conduct device usability testing		
Total score			

4.	Field Staffing and Training- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Create and implement a viable formal staffing plan for securing and training sufficient number of field staff (supervisors, editors, interviewers, health technicians)		
b	Hire sufficient number of skilled field staff in a timely manner (supervisors, editors, interviewers, health technicians)		
c	Establish criteria for determining which field staff recruits will or will not be retained for data collection		
d	Prepare or update survey manuals for field staff (Interviewers Manual, Supervisor's and Editor's Manual, Tablet		
e	Prepare or update training materials, including the Interviewer and other Manuals, for training interviewers, supervisors, field editors and QC staff on all topics required to ensure high quality data collection, including an adequate number of field practice sessions		
f	Prepare training materials for the use of portable electronic devices (e.g. tablets, PDAs) including: 1) how to use the device to ask questions and record responses; 2) how to, and how often to transmit data to the survey central office; 3) how to, and how often to charge the device; and 4) how to troubleshoot problems		
g	Prepare or update training materials for anthropometric measurement		
h	Prepare or update training materials for biomarker measurement and collection, including for anemia, HIV, and other biomarkers		
i	Secure appropriate training venue		
j	Coordinate training logistics efficiently		
k	Conduct interviewer's training on following elements: 1) fieldwork procedures; 2) general procedures for how to complete the questionnaires		
l	Conduct interviewer's training for CAPI/CAFE related procedures		
m	Conduct supervisor's and editor's training on following elements: 1) preparing for fieldwork; 2) organizing and supervising fieldwork; 3) monitoring fieldwork performance; 4) editing questionnaires for each interviewer for accuracy and completeness during fieldwork		
n	Conduct anthropometry training on weighing and measuring children under 5, women and men		
o	Conduct biomarker training on collecting blood samples for anemia, HIV, and other biomarkers		
p	Conduct training for quality control and fieldwork supervision teams on assessment of fieldwork practice, progress, and data quality; effective feedback and correction for interviewing teams		
q	Train staff in how to train survey staff to implement survey curricula, tools, modules or methodologies		
r	Develop and implement assessment tools to measure training effectiveness (e.g. pre- and post-tests, daily evaluations, overall training evaluations, action plan implementation follow ups)		
	Total score		

5.	Field Operations- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Plan and implement a pretest prior to the main survey to test each component of the survey		
b	Incorporate lessons learned from the pretest into the survey instrument and guidance for field work		
c	Recognize and address issues immediately related to the instrument and/or field work procedures		
d	Plan fieldwork in an efficient manner including assigning teams to clusters according to language, ordering clusters assigned to teams in an efficient manner based on geographic location		
e	Establish transparent and efficient hierarchical structure for field operations		
f	Plan for and implement a strategy for ensuring good communications between field staff and implementation agency headquarters		
g	Establish standards and procedures for timely return of questionnaires and materials from the field		
h	Develop and Implement a system for tracking the distribution of field work materials (questionnaires, forms, maps, stationary, anthropometry and biomarker equipment, portable electronic devices, etc.)		
i	Secure warehousing to store biomarker supplies		
j	Establish a transportation and delivery structure (including having a contingency plan) to ensure materials reach the field teams on schedule and in good condition		
k	Ensure sufficient extra questionnaires and/or portable electronic devices (e.g. tablets, PDAs) are available throughout the country to avoid delays. Backup portable devices would be needed if some in the field fail.		
l	Establish written procedures for what to do when questionnaires and/or portable electronic devices (e.g. tablets, PDAs) are lost or stolen		
m	Develop and implement a plan to communicate field staff track their location during the supervisory visit		
n	Develop a specific plan for survey personnel to monitor data collection and provide supportive supervision		
o	Operate a system to assess data quality during data collection, e.g. use of field check tables		
p	Collect quality and reliable data		
q	Detect data quality issues during fieldwork		
r	Respond to quality issues and take corrective action		
	Total score		

6.	Data Processing- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Secure sufficient physical space and hardware to effectively and efficiently conduct data processing activities		
b	Secure sufficient staff trained and experienced in information technology (IT) and data processing software (CSPRO, SPSS, Stata)		
c	Apply DHS Program data processing approach to design menu systems and adapt standard programs to the country specific survey requirements		
d	Design data capture system for paper questionnaires: 1) create a data entry program, 2) program skip patterns and range and consistency checks		
e	Design data capture system for CAPI: 1) design the questionnaire capture, 2) program skip patterns and range and consistency checks		
f	Adapt data edit and imputation programs and ensure they are methodologically sound and efficient		
g	Adapt, as appropriate, data processing training materials (for paper or CAPI) to train survey staff in data processing		
h	Train staff on how to enforce coding standards (formatting, naming variables, forms design, etc.).		
i	Train data processing staff in CSPRO, and SPSS and/or Stata		
j	Train data entry operators to accurately enter and verify data		
k	Monitor data entry operators to ensure data are accurately entered and verified		
l	Supervise data processing system to assess and ensure data quality during data entry (paper) or data collection (CAPI)		
m	Use CSPRO or SPSS to produce tables		
n	Interpret household or facility survey data		
o	Make decisions about corrective actions based on data quality issues discovered in a timely fashion, and follow through		
p	Create a system for documenting lessons learned from the survey pilots for data processing		
q	Conduct data processing activities in a timely manner according to the schedule		
	Total score		

7.	Laboratory Testing- Laboratory has the capacity to:	Evaluation of Lab	Additional comments
----	---	-------------------	---------------------

HIV Testing

a	Make available experienced and trained lab technicians		
b	Participate periodically in a proficiency testing program		
c	Secure resources (electricity, distilled water), equipment (micro plate reader and washer, shaker, rocker, freezers, refrigerators) and workspace		
d	Routinely keep lab records		
e	Test DBS and serum samples using enzyme immunoassays		
f	Conduct internal and external quality control procedures.		
g	Perform and Interpret blotting assays for HIV typing		
h	Interpret and analyze lab test results and institute corrective action when necessary		
i	Use and interpret assay controls correctly		
j	Read, follow and execute testing protocols accurately		
k	Efficiently assemble and program laboratory instruments for testing		
l	Perform laboratory trouble-shooting and take corrective measures as necessary		
m	Use pipettes efficiently to deliver required volumes of samples		
n	Perform basic lab calculations (e.g. how to dilute samples)		
o	Routinely maintain good lab organization		
p	Have a basic understanding of laboratory instrumentation		
q	Have written protocols (or Standard Operating Procedures) for processing and testing samples		

Malaria Testing

r	Use microscopy to detect malaria parasites		
s	Perform rapid diagnostic tests (RDTs) to detect the presence or absence of malaria infection		
t	Interpret results of RDTs to classify disease status		

Biological Sample Handling

u	Follow guidelines for avoiding self-contamination with biological samples		
v	Dispose of biological waste following universal guidelines		
	Total score		

8.	Report Writing- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Hire relevant subject-matter experts for preparing the survey report as needed based on the type of survey. Examples of subjects for which experts may be needed include: demographic issues (e.g. fertility, mortality), family planning, malaria, HIV, nutrition, water and sanitation, child health and maternal health,		
b	Develop strategic and feasible plan for survey report writing activities		
c	Prepare tabulation plan for survey standard reports		
d	Organize report writing workshop for authors of the survey report		
e	Conduct report writing workshop for authors of the survey report		
f	Read and interpret a DHS or SPA table correctly		
g	Manage report writing process for authors of the survey report		
h	Describe in writing the key findings from a DHS or SPA table		
i	Design graphics to illustrate key findings		
j	Interpret trends between surveys and describe trends in text		
k	Assess quality of survey results and describe limitations of the data		
l	Write clear, easily understood reports which do not require extensive editing		
m	Produce technically sound final reports		
	Total score		

9.	Geographic Information Systems- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
----	--	--	---------------------

Ability to collect and validate GPS data

a	Secure required equipment for GPS data collection during listing, both for household listing and health facility listing, as necessary (GPS units)		
b	Identify key staff responsible for GPS data collection		
c	Train listing teams in GPS data collection procedures		
d	Download GPS data from receivers		
e	Perform data validation using appropriate shapefiles for the country, identify missing clusters		
f	Prepare preliminary standardized data files		

Ability to create maps for decision making

g	Choose appropriate indicators for mapping		
h	Select and download data from Spatial Data Repository		
i	Open data in GIS Software (QGIS, ArcGIS or other)		
j	Integrate point, line, and polygon data types into the map		
k	Join data from excel table to shapefile		
l	Visualize continuous and categorical data on map		
m	Make decisions about appropriate cut points and data classification		
n	Layout map with title, scale, and legend		
o	Create appropriate type of export for Word, PowerPoint, and poster presentation		
p	Present key findings from map in presentation or written form		
	Total score		

10.	Data Analysis- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
Use statistical packages such as Stata, SPSS, SAS			
a	Open dataset in a statistical package		
b	Construct and recode variables		
c	Run basic statistics (tabulations, T-test, ANOVA)		
d	Run advanced analyses (e.g. multivariate regressions)		
e	Perform data validation using appropriate shape files for the country, identify missing clusters		
Use DHS/AIS/MIS/SPA data files			
f	Relate data files to questionnaires		
g	Select appropriate data files and variables for specific analysis		
h	Understand the identifiers and be able to merge different types of data files		
i	Apply weights and survey design adjustments in analysis		
Interpret statistical and demographic analysis results			
j	Understand how DHS complex indicators (e.g. wealth index, mortality and fertility rates) are calculated		
k	Interpret cross tabulations		
l	Read and interpret linear regression results		
m	Read and interpret logic regression results and odds ratios		
n	Read and interpret significant levels and confidence intervals		
o	Develop a conceptual framework		
p	Identify and integrate relevant literature		
q	Design an appropriate analysis methodology		
r	Communicate research findings to the target audience		
	Total score		

II.	Data Dissemination- Implementing agency has the capacity to:	Evaluation of implementing agency/agencies	Additional comments
a	Identify and present key findings in a clear, user friendly way to specific audiences		
b	Develop strategic and feasible dissemination plan and budget with clearly stated objectives, audiences, and communication channels		
c	Prepare or outsource development of appropriate dissemination materials including PowerPoint presentations, fact sheets and key findings		
d	Develop a media kit (press release, policy briefs, fact sheet etc.)		
e	Write a press release		
f	Organize press conferences/briefings and work successfully with media to disseminate survey findings		
g	Tailor presentations to meet specific audience's need		
h	Deliver presentations to specific audience		
i	Create appropriate social media accounts/presence for data dissemination		
j	Manage appropriate social media accounts/presence for data dissemination		
k	Develop their (implementing agency's) website		
l	Maintain their (implementing agency's) website		
m	Assess data users' needs and proactively decide what dissemination materials to develop		
n	Develop and make available documentation to support data set use		
o	Organize a national seminar to release survey results		
p	Anticipate data users' need for dissemination materials and appropriately budget for them		
q	Organize training for data users on accessing and using survey results to guide decision		
r	Conduct training for data users on accessing and using survey results to guide decision		
s	Establish guidelines for data release that ensure confidentiality		
t	Establish an active data set management system		
u	Have staff/department devoted to dissemination and/or public relations		
	Total score		

12.	Institutional Capacity- Capacity of Implementing agency (IA) to sustain implementation of competencies in previous sections of the Capacity Assessment Tool: IA has functioning systems in place for:	Evaluation of implementing agency/agencies		Additional comments
		System exists	System Functional	
Data Confidentiality				
a	Implementation of internationally recommended data confidentiality and protection practices throughout all phases of the survey			
b	Training survey staff on data confidentiality [within 60 days of their hire and regularly thereafter (every year or two)]			
c	Ensuring compliance with regulations for the protection of human research subjects during DHS surveys (ethical committee/IRB)			
Planning and Management				
d	Developing and routinely updating strategic and implementation plans which identify organizational activities, goals and challenges			
e	Tracking domestic and international technical assistance for DHS surveys (including a clear scope of work, deliverables, and outputs identified prior to commencement of TA activities)			
Human Resource Management				
f	Developing and implementing a formal staffing plan for securing and training sufficient number of staff in a timely manner			
g	Securing and training sufficient number of staff for DHS surveys in a timely manner			
h	Securing dedicated core survey staff (including consultants) specialized in each of the following: survey planning, questionnaire development, field operations, data processing, sampling, data analysis, and dissemination			
i	Reviewing employee performance annually and creating staff professional development plan with clear guidelines for accountabilities			
j	Implementing capacity development activities regularly to ensure staff competencies to carry out household or facility-based surveys			
k	Implementation of a succession plan to identify specific employees to take on larger responsibility and providing training to ensure the plan succeeds			
Stakeholder Engagement				
l	Engaging stakeholders in the process of developing a financial plan during DHS or SPA survey design			
m	Constructively include domestic and international stakeholders during the planning and implementation of DHS or SPA surveys			
Resource Availability				
n	Securing and maintaining adequate infrastructure and physical resources (including computers, printers, desks, office supplies, equipment, electricity/generator and air conditioning etc.), physical facilities and transport to perform required survey tasks			
o	Maintaining virus protection of all electronic equipment included committed funds needed			

12.	Institutional Capacity- Capacity of Implementing agency (IA) to sustain implementation of competencies in previous sections of the Capacity Assessment Tool: IA has functioning systems in place for:	Evaluation of implementing agency/agencies		Additional comments
		System exists	System Functional	
p	Availing effective information and communication systems, networks and tools (i.e. internet/ email/website)			
q	Maintaining technological infrastructure (databases and management reporting systems)			
r	Securing technical resources: Creating/adapting survey training curricula, tools, modules, or methodologies to ensure competencies for survey staff			
Financial Resource Mobilization and Management				
s	Advocating for domestic and international donor financial support for DHS or SPA surveys			
t	Prepare and implement realistic budget			
u	Ensuring accountability for DHS surveys budgeting, management and implementation			
v	Assessing organization's financial needs for surveys and making funding requests to central government and donors sufficiently in advance of expenses			
w	Engaging stakeholders in developing a financial plan for surveys			
x	Managing financial resources appropriately during the implementation of DHS or SPA survey and other surveys			
y	Transparent and operational budgeting and financial management			
z	Internal control and auditing			
	Total score			

	Areas	Evaluation agency/agencies
1.	Planning and Management	0%
2.	Sampling and Listing	0%
3.	Questionnaire Design and Testing	0%
4.	Field Staffing and Training	0%
5.	Field Operations	0%
6.	Data Processing	0%
7.	Laboratory Testing	0%
8.	Report Writing	0%
9.	GIS	0%
10.	Data Analysis	0%
11.	Data Dissemination	0%
12.	Institutional Capacity	0%
	Total Scores	0%