Service Availability and Readiness Assessment (SARA)

An annual monitoring system for service delivery

Implementation Guide
Acknowledgements

The service availability and readiness assessment (SARA) methodology was developed through a joint World Health Organization (WHO) – United States Agency for International Development (USAID) collaboration. The methodology builds upon previous and current approaches designed to assess service delivery including the service availability mapping (SAM) tool developed by WHO, and the service provision assessment (SPA) tool developed by ICF International under the USAID-funded MEASURE DHS project (monitoring and evaluation to assess and use results, demographic and health surveys) project, among others. It draws on best practices and lessons learned from the many countries that have implemented health facility assessments as well as guidelines and standards developed by WHO technical programmes and the work of the International Health Facility Assessment Network (IHFAN).

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Project Management Group
The SARA methodology and tool were developed under the direction and management of Kathy O’Neill and Ashley Sheffel with valuable inputs from Ties Boerma and Marina Takane.

Project Advisory Group
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6. Supervisor’s guide
The Service availability and readiness assessment (SARA) is designed to function as a systematic tool to support annual verification of data and service delivery at the facility level. It intends to cover public as well as private and faith-based health facilities. The goals of the survey is to provide evidence based data on health system progress to inform the annual health sector review, identify gaps and weaknesses responsible for sub-optimal service provision and intervention coverage that need to be addressed. It also provides a baseline for planning and monitoring scale-up intervention for service delivery improvement for maternal and child health, HIV, TB, malaria and NDCs among others.

The SARA survey requires visits to health facilities with data collection based on key informant interviews and observation of key items. Supervisors have a key role to ensure that the field data is properly conducted.

The Supervisor’s Guide is designed to provide supervisors with:

- Clear understanding of their roles and responsibilities in managing the field data collection and supervising the data collectors’ teams
- Details of the field data collection procedures and protocols required steps to ensure quality data collection work
- Steps in using CSPro for electronic data verification and validation
6.1 Roles and responsibilities

Field supervisors are responsible for overseeing all aspects of data collection in the survey area(s) for which they are responsible. This includes:

- Organizing data collection visits in facilities (making initial contact, preparing a schedule of data collection visits, etc).
- Preparing the necessary materials for data collection.
- Supervising data collection activities:
  - Make sure data collection protocols are followed
  - Arrange for regular communication with data collection teams
  - Check data collection forms at the end of each day for completeness and legibility
  - Ensure data are transferred to computer at the end of each day and at national level by the end of the assessment
- Validating data collection by re-conducting the survey at 10% of facilities comparing results to those of data collectors.
- Collecting and storing data collection forms, and sending them to the survey manager.
- Transferring electronic data from electronic data collection devices to survey area computer/laptop.

Field supervisors have a crucial role to play in ensuring data quality and consistency.

6.2 Conducting field activities

6.2.1 Preparing for data collection

1. Schedule survey visits and identify replacement facilities

The survey manager will provide you with a list health facilities and replacement facilities for your survey area.

1. Contact (in person or by phone) each health facility and replacement facility to introduce the survey and seek permission for data collection:

- Introduce the survey and its objectives
- Use the letter of endorsement and introduction provided by the survey manager
- Stress that individual facilities will not be identified in the results

2. Make an appointment for data collection at a date and time which is convenient for the facility, avoiding peak hours.

- Plan for approximately 3-4 hours for each data collection visit, plus travel time
- More time should be allotted for large facilities/hospitals (1 day for hospital)

3. Note the name and telephone number of the contact person at each health facility.
6. Supervisor’s guide

4. Explain about the possibility of a second visit for ‘validation,’ which may take place in 10% of the surveyed health facilities.

5- If a facility refuses to participate, alert the survey manager who will contact the health facility directly, and if necessary, provide you with an alternative site. Luckily, this rarely happens.

2. Prepare a schedule of data collection visits for each pair of data collectors

1. Prepare a schedule for each pair of data collectors, including:
   - Date and time of each visit
   - Name, number, sector and contact person for each health facility
   - Address and location of each health facility
   - Contact information for replacement facility to be visited if necessary

Example:

<table>
<thead>
<tr>
<th>Date and time of appointment</th>
<th>Name of facility</th>
<th>Contact person</th>
<th>Location</th>
<th>Managing authority</th>
<th>ID Number</th>
<th>replacement facility- name and contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 20 10h00</td>
<td>ABC Health center</td>
<td>Mrs Nguyen</td>
<td>45 Main Street, Eastern City</td>
<td>Govt</td>
<td>01234</td>
<td>XYZ Health Center- 59 main street, Eastern City</td>
</tr>
</tbody>
</table>

2. Call each facility and confirm appointment the day before the data collection

3. Arrange for regular communications and transport

Once all of the survey sites are known, transportation should be arranged according to the number of sites to be visited, the number of teams going into the field, and the number of people per team.

6.2.2 Preparing the necessary materials for data collection

1. Prepare data collection form for each facility to be visited

1. The survey manager will provide you with a separate data collection form for:
   - Each sample health facility in your survey area;
   - Each replacement facility; and
   - Each validation visit.

Make sure that there are enough forms according to the list of facilities in the survey area prior to starting the field data collection.

2. Complete the front page of the SARA questionnaire data collection form with the identifying information of each sample facility.
Complete the following fields in the cover page of the form:

- Name of health facility
- Health facility unique ID
- Name of town/village
- Region and district
- Type of facility
- Managing authority

Do not complete these fields, as these will be completed by data collectors during facility visits:

- Date
- Name of person(s) who provided information
- Name of data collectors

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of health facility</td>
<td></td>
</tr>
<tr>
<td>Health facility unique ID</td>
<td></td>
</tr>
<tr>
<td>Name of town/village</td>
<td></td>
</tr>
<tr>
<td>Region and district</td>
<td></td>
</tr>
<tr>
<td>Type of facility</td>
<td></td>
</tr>
<tr>
<td>Managing authority</td>
<td></td>
</tr>
</tbody>
</table>

2. Material checklist

To be completed by field supervisors before data collection visit
2. Material check-list

The supervisor will need to make sure that the following material is available each day for the field data collectors to properly conduct the survey:

Checklist of materials for data collectors

- Contact details of the field supervisor, including a mobile phone number to call in case of difficulty in the field
- Data collector’s guide and relevant handouts
- A schedule of visits to survey sites and contact details of the sites
- List of data collection teams and contact information when in the field
- Copies of letter(s) of endorsement and letter of introduction
- A data collection form for each facility that may need to be visited that day
- Extra copies of the SARA data collection form
- Electronic data collection devices (fully charged with CSPro application installed and loaded with the SARA questionnaire) batteries and power cables
- Memory cards or USB keys for data backup
- GPS units (fully charged and accurately configured, if relevant)
- Pens (pencils should not be used to record data), a clipboard and other supplies.
- A notebook to record any significant events or findings
- Field allowance for local expenses
- An identity document with a photograph
- A mobile phone for each team and credit

Checklist of materials needed by supervisors for daily meeting with the data collectors

- Detailed planning of site visits for each data collection team
- Electronic data collection software installed on the laptop (CSPro 6.0) (See instructions in Section 4)
- A fully charged laptop computer with appropriate software for copying data from electronic data collection device to laptop computer (using memory cards or USB keys)

6.2.3 Supervising data collection activities

Your main responsibilities during data collection are to supervise data collectors and make sure data collection forms are complete and accurate. Go out into the field regularly with your data collectors to make sure that the survey protocols are being followed. Identify any problems regarding the data collection process and resolve them. If you encounter problems that you cannot resolve, report them to the survey manager as soon as possible.

You are responsible for the accuracy of the data collected by data collectors.

1. Make sure data collection protocols are followed

- Ensure that data collection teams are conducting interviews at the facility
- Keep track of facilities that have been covered from the sample
2. Arrange for regular communication with data collection teams

- Provide data collectors with a mobile phone and phone number where they can contact you during data collection
- Arrange to meet with data collectors at the end of each day of data collection
- Ensure data are transferred to computer at the end of each day

6.2.4 Tracking facilities

The field supervisors should keep a running tally of facilities that have been assessed from the list of facilities in the sample assigned to them, for example using a table such as the one below:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Zone</th>
<th>District</th>
<th>COUNTY</th>
<th>SUB-COUNTY</th>
<th>PARISH</th>
<th>HEALTH UNIT</th>
<th>OWNER</th>
<th>AUTHORITY</th>
<th>LEVEL</th>
<th>STATUS</th>
<th>POA</th>
<th>Validated Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Zone</td>
<td>District</td>
<td>COUNTY</td>
<td>SUB-COUNTY</td>
<td>PARISH</td>
<td>HEALTH UNIT</td>
<td>OWNER</td>
<td>AUTHORITY</td>
<td>LEVEL</td>
<td>STATUS</td>
<td>POA</td>
<td>Validated Comments</td>
</tr>
<tr>
<td>GREEN</td>
<td>facility has been assessed, data collectors have entered data into CSPro, data has been checked</td>
<td>RED</td>
<td>facility could not be assessed</td>
<td>BLUE</td>
<td>replacement facility</td>
<td>WHITE</td>
<td>not yet covered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Include information on which facilities were selected for supervisor validations
- Any issues encountered with the data should also be documented in the tally
- This table should be submitted to the survey manager with the electronic data files at the end of the field work

6.2.5 Daily meeting with data collectors

At the end of each day, supervisors have the responsibility to:

- Meet with data collectors to collect completed forms and resolve any problems encountered
- Review each data collection form completed that day:
  - making sure they are complete and legible
  - verifying missing or suspicious information
- Uncertain or illegible data should be checked with data collectors, may need to re-contact facility to clarify
- Sign the last page of each questionnaire to record that it has been checked, but only once you are sure that data is complete, legible, and there are no obvious mistakes
Use CSPro tools to check for completeness of the electronic data collection forms

### 6.2.6 Storing completed data collection forms

- Completed paper forms should be stored in waterproof plastic bags in the field until completion of field work, at which time they will be sent to the survey manager.
- All original data collection forms, including those for validation visits (label clearly!), should be transferred to the survey manager upon completion of fieldwork.
- Field supervisors should retain the copies for use in the event that the originals become lost or damaged.

### 6.2.7 Transferring electronic data collected (using USB flash)

Electronic data should be backed up on a memory card/USB key and transferred to computer of field supervisor at the end of each day to prevent data loss.

**Transferring final data files from laptops/netbooks/etc. with a USB flash drive**

1. A USB flash drive should be inserted into the laptop/netbook computer that was used for data collection. The file explorer can be used to navigate to where the SARA data files are stored and then to the folder SARA\Data. This location was selected at the beginning of data collection.

2. The SARA\data.dta file should be copied from the laptop/netbook computer to the USB flash drive. The USB flash drive can now be ejected from the laptop/netbook.

3. The USB flash drive can be inserted into the desktop/laptop computer that will be used for data processing. The SARA data files can now be copied and pasted to a folder on the desktop/laptop.

4. This should be repeated for all laptop/netbook computers used for data collection.

**Organizing data files from the field collection**

The back-up procedure (steps-as described above) should be done every time supervisors meet their teams. It is important to save the data files in an organized manner to make sure that the latest files enclose data for all surveyed facilities by each team. A saving procedure as below could be used to save in an organized manner data in specific folder for each team:

```
SARA_TEAM1_DATE1
SARA_TEAM1_DATE2
SARA_TEAM1_DATE3
```

The latest file for each team should correspond to the final file. This will be validated by the supervisor. A copy of the final file should be created and renamed:

```
SARA_TEAM1_FINAL
```

**The final data set will contain the final files from each team:**

```
SARA_TEAM1_FINAL
SARA_TEAM2_Final
SARA_TEAM3_FINAL
SARA_DATA_COLLECTION_FINAL (REGION X)
```
This final data set should be sent/shared with the identified data manager at central level in charge of the compilation of the data from field collection. A back-up of all data files (final and stamped with dates) should preciously be saved as back-up and remain accessible during the cleaning and data processing phase.

### 6.2.8 Validation of data collection

The supervisor will do a validation visit in 10% of health facilities. They will return to some of the sample facilities (10% randomly selected within the list) and collect data again, to make sure that the data obtained by the data collectors is accurate and reliable. To do so, the supervisors will:

- Select facilities for validation at random (randomly select 1 public facility and 1 private facility).
- Conduct the validation visits on the same day as the visits to these facilities by data collector (or as soon after as possible).
- Compare the data obtained with that collected by the data collectors.
- Identify and resolve any issues/mistakes and discussed with data collectors.
- Data collected for validation should also be entered electronically in CSPro. The consistency of responses (exact matching) will be analyzed as a measure of quality control.

### 6.3 Using CSPro for data checking and validation

#### 6.3.1 Installing CSPro

The following is based on a Windows 7 setup. Your steps may vary if using a different operating system.

1. Download the CSPro application from http://www.census.gov/population/international/software/cspro/csprodownload.html
2. Install CSPro 6.0 to your computer by double-clicking on cspro6.0.1.exe (the two last digits of the version number might change as new releases are published). This will start the installation wizard.
3. CSPro allows you to select which components of the system you want to install. During the installation you will see the following component screen:
You have the following choices:

- CSPro (all components): Select this if you plan to develop applications.
- Data Entry Operator (only): Select this if you are installing a data entry application on a production machine. The operator will be able to run an already-created data entry application, but will not be able to make any changes to it. The Data Entry, Compare Data, Text Viewer, and Table Viewer components are installed.
- For SARA, please install **ALL COMPONENTS** even on tablets to use in the field as there are tools in the full application that are required for the program to run properly.
- The rest of the default settings for the installation are OK, so just click “next” until finished.

6.3.2 Reviewing data in CSPro

Supervisors should review data transferred to the laptop for completeness and consistency. The following steps for reviewing the data should be done:

- Data files in CSPro should be checked for each facility
- At a minimum, the following items should be verified:
  - The facility code and the facility name match
  - The level and type of facility are correct (based on the facility inventory)
  - The data collector ID/team name is correct
  - Location of facility is correct
  - The data file does not have any missing values

1. Open SARA CSPro application
- Click on the file named SARA_2.0_Simple.pff

<table>
<thead>
<tr>
<th>Batch</th>
<th>Data</th>
<th>Docs</th>
<th>Lib</th>
<th>lookup_files</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$keys$.tmp</td>
<td>greeting_ENG.txt</td>
<td>greeting_FRA.txt</td>
<td>SARA_2.0_Core_Template.dcf</td>
</tr>
<tr>
<td></td>
<td>SARA_2.0_Simple.ent</td>
<td>SARA_2.0_Simple.ent.app</td>
<td>SARA_2.0_Simple.ent.mgf</td>
<td>SARA_2.0_Simple.ent.qsf</td>
</tr>
<tr>
<td></td>
<td>SARA 2.0 Simple.fm</td>
<td>SARA 2.0 Simple.fm</td>
<td>SARA 2.0 Simple.fm</td>
<td>SARA 2.0 Simple.fm</td>
</tr>
</tbody>
</table>
2. Select the data file to open

- Select the case containing the data for the facility you would like to review, and double-click to open it.

![Image of the data file](image)

3. The case opens on the Cover page form.

- Review the information as per indication at the beginning of this section.
  - The facility code and the facility name match
  - The level and type of facility are correct (based on the facility inventory)
  - The data collector ID/team name is correct
  - Location of facility is correct
- After reviewing the Cover page, you can use the tree on the left window to review other sections if necessary.
- When review and editing is complete click on stop and be sure to save your changes.

4. Check for completion

A batch edit application has been created to track data inconsistencies, allowing more in-depth data cleaning and validation. The application identifies questions not answered that should have been answered as well as questions that shouldn’t have been answered but were based, on the specific skip patterns. To run the batch application use the following steps:

1. Browse to SARA\Batch\Batch_1 and click on the SARA_datacleaning.bch file.
2. Click on Run from the menu bar. Browse to SARA\Data and select the SARA_data.dta file for the input file. Then click on ok. No output file is required.
3. When the application finishes running, a text file will open with the result of the batch such as the one below:
6. Supervisor’s guide

4. Each case will be identified by facility number and name and a list of error messages will be below. These messages correspond to inconsistencies in the data. Each issue should be reviewed with the survey team and the records edited appropriately to finalize the data set.