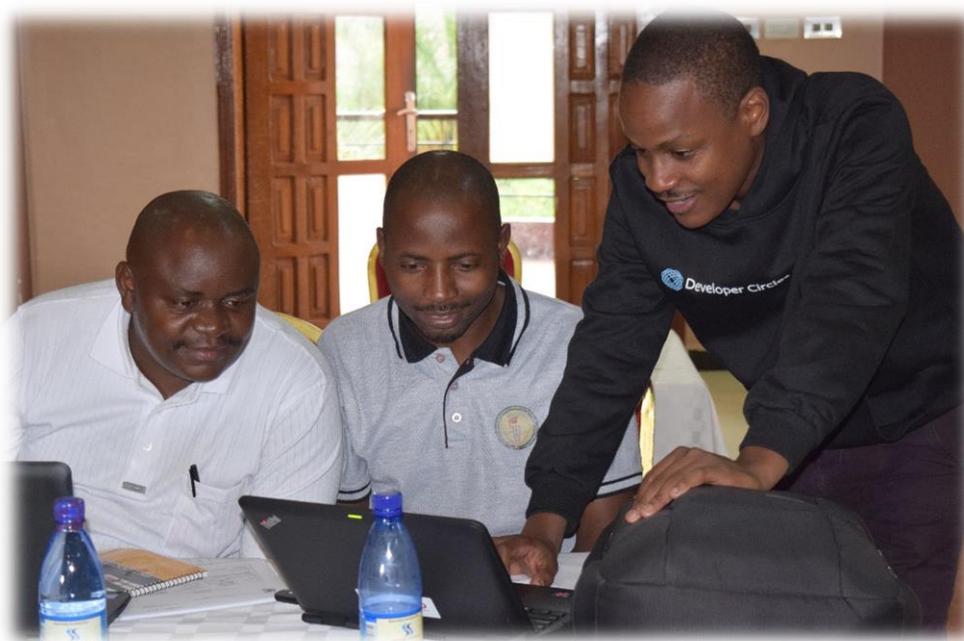


# THE LAB SPARS DATABASE

User Manual

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## Version history

VERSION NUMBER	DATE	REASON
2.0	15 <sup>th</sup> September 2019	Revised to cover database upgrades

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## **I.0: GENERAL INFORMATION**

This section explains in general the Lab SPARS database and the purpose for which it was intended.

### **I.1: System overview**

The Lab SPARS electronic tool was developed to enable the entry of data collected during the health facility visits by the Lab SPARS Supervisors using the hardcopy data assessment tools. The system mirrors the hardcopy data collection tool and is very easy to navigate with validation checks embedded in it to ensure that all the data generated is of good quality.

### **I.2: Organisation of the manual**

The user's manual consists of five sections: General information, System summary, Getting started, using the system and reporting.

The General information section explains in broad terms the system and the purpose for which it was intended.

The System summary section provides a general overview of the system. The summary outlines the uses of the system's hardware and software requirements, system's configuration, user access levels and system's behaviour in case of any contingencies.

The Getting started section explains how to access the system and presents a brief description of the system menu.

The Using the system menu provides a detailed description of system functions and how to use them.

Lastly, the Reporting section in what way information collected by the application are presented and how to access the information.

## 2.0: SYSTEM SUMMARY

This section provides a general overview of the system. The summary outlines the uses of the system hardware and software requirements, system's configuration, user access levels and system's behaviour in case of any contingencies.

### 2.1: System configuration

The Lab SPARS database operates on computers with Windows operating system. It is compatible with windows 7 and higher versions. The application requires connection to reliable internet in order to save data to the database. The data saved in the database can be seen using any major internet browser (Google Chrome is preferred). The electronic tool can be used immediately once one access the URL without any further configuration.

### 2.2: User Access Levels

Only users with legitimate credentials can access the database. The access levels are illustrated below.

USER TYPE	PERMISSIONS
Database Administrator	<ul style="list-style-type: none"><li>• Add new users</li><li>• Make edits at the backend of the database</li><li>• View reports</li><li>• View entered visits</li></ul>
Data Manager	<ul style="list-style-type: none"><li>• Make edits and resolve queries</li><li>• Add new visits</li><li>• View entered visits</li><li>• View reports</li><li>• View dashboard</li></ul>
Data entrant	<ul style="list-style-type: none"><li>• Add new visits</li><li>• View entered visits</li><li>• View dashboard</li><li>• View reports</li></ul>
Monitor	<ul style="list-style-type: none"><li>• View entered visits</li><li>• View dashboard</li><li>• View reports</li></ul>

## 2.3: Contingencies

In the event of no internet connectivity, data entered cannot be submitted and subsequently saved in the database.

With a reliable internet connection, pages will be saved one by one before the complete tool is submitted once all pages are completed. This is referred to as the “Partial Save” functionality.

## 3.0: GETTING STARTED

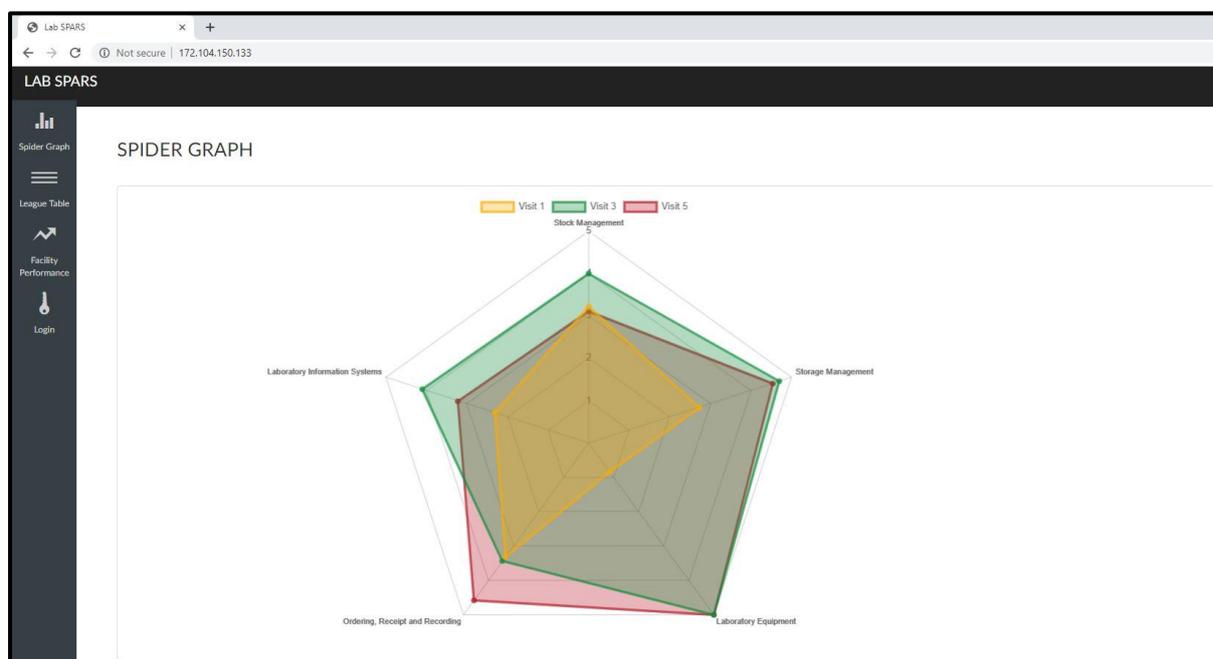
This section explains how to access the database on the computer. The section also present a brief on the Lab SPARS database menu.

### 3.1: Logging in

Step 1: Using any internet browser of your choice (Google Chrome is preferred.), follow the steps below to access the database:

1. Log onto <http://cphl.go.ug/>
2. Select Dashboards (<http://cphl.go.ug/dashboards>)
3. Select Lab SPARS

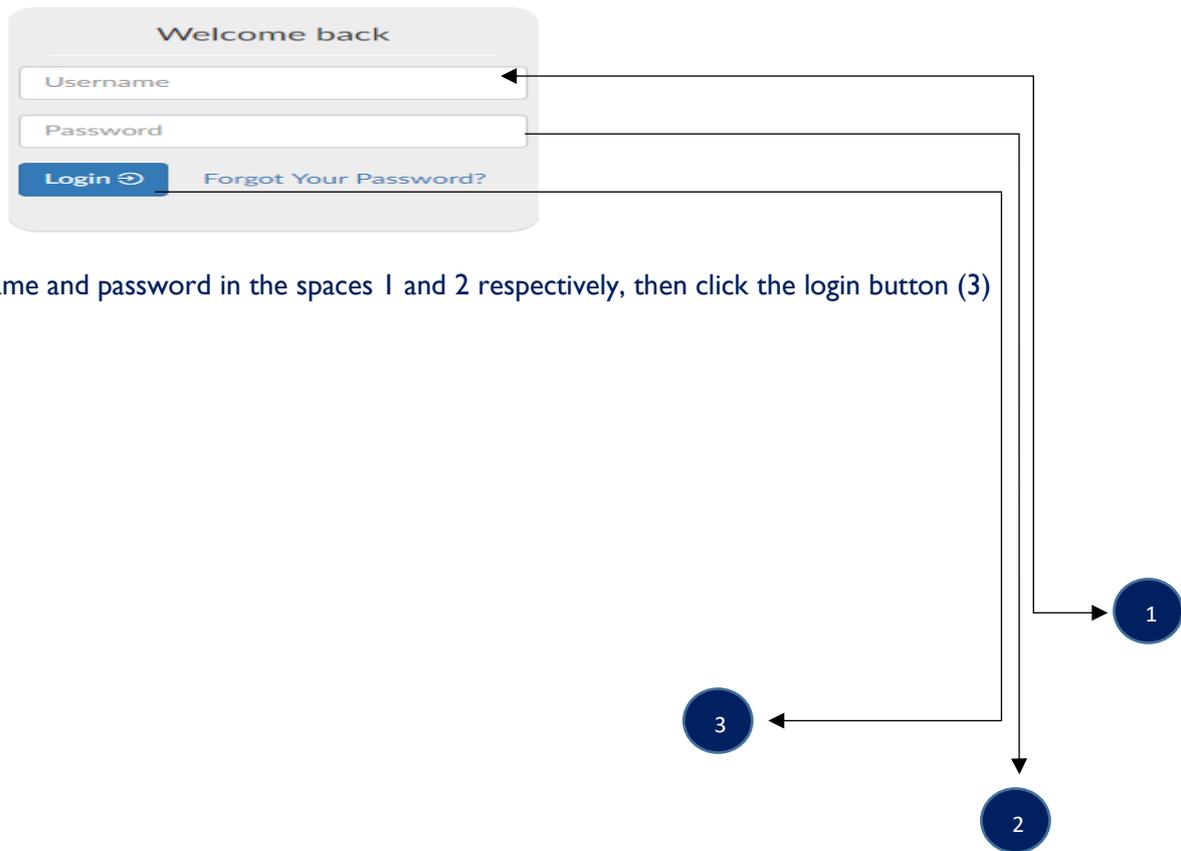
The Page shown below will be displayed.



Before Logging in, on this page you can view the overall Lab SPARS performance at all points of implementation through:

1. The Spider graph. illustrating average overall performance by each of the Lab SPARS domains.
2. The League Table, illustrating the current performance ranking of each of the implementing districts.
3. The Facility Performance, illustrating the current score of each facility in comparison to the baseline score.

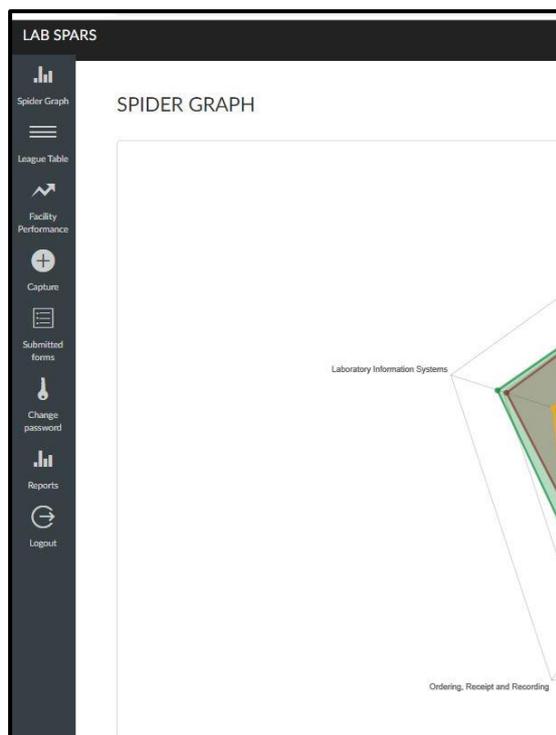
Step 2: To access the actual database, select the Login Key to reveal the page below:



Type your username and password in the spaces 1 and 2 respectively, then click the login button (3)

## 3.2: Lab SPARS menu

Once the user has logged in, a menu will be displayed as shown below.



The Lab SPARS menu consists of 8 tabs:

1. The first 3 tabs (Spider graph, League Table and Facility Performance) allow you to access the Dashboard content as previously detailed on page 6. – *These 3 tabs will merge into one tab (Dashboard) once you move into another section.*
2. The fourth tab (Capture) allows you to access the Lab SPARS data collection form to enter and submit data.
3. The fifth tab (Submitted forms) displays a list of data collection tools submitted by the user, with the most recent at the top of the pile.

**Note!** *Clicking any of the header icons (Region, District, Sub-District, Facility, level...) will filter and rearrange the list according to the selection.*

4. The sixth tab (Change password) allows the user to change or update the password at will. Simply enter the current/old password followed by the new password and finally confirm the new password before submitting.

**Note!** *We advise that users update passwords at least every three months.*

5. The seventh tab (Reports) allows the user to extract data from the database. One can extract a Survey summary report, Score Summary Report or an Extract by Indicator Report as may be required. – Details of these reports are covered further down in this manual.
6. The eighth tab (Settings) gives visibility into health facility and cadre information
7. The final tab allows you to logout of the database.

All the tabs have icons and names at the bottom to enable the user to distinguish them easily.

### 3.2.1: Dashboard tab

The dashboard presents options to either display the Spider graph, League Table and Facility Performance table. Please refer to details captured on page 6 and 7

### 3.2.2: Capture tab

The capture tab contains the data entry form which has all the six sections that mirror the hardcopy assessment tool. These sections include; general information, stock management, storage management, ordering, receipt and recording, laboratory equipment and laboratory information system. All these sections have fields in which data can be entered. Each field has a specific data type.

The form displayed by the capture tab is shown below.

The screenshot shows the 'LAB SPARS' interface with the 'Capture' tab selected. The 'General information' section contains the following fields:

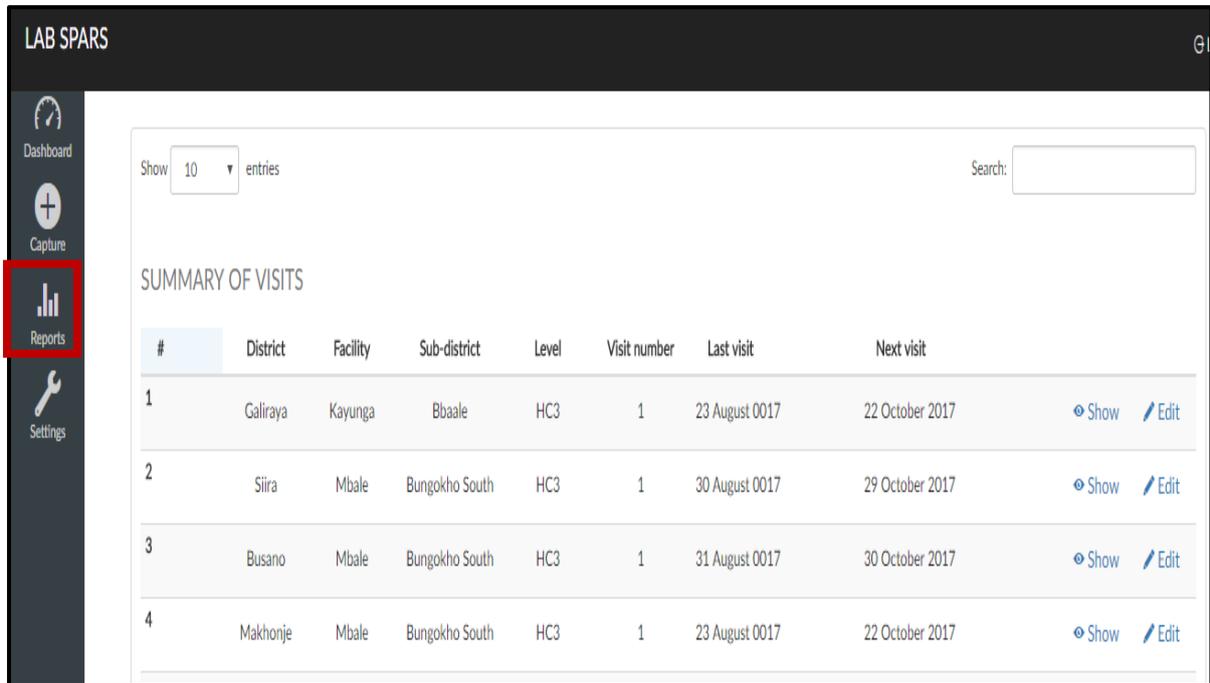
- District: Select a district (dropdown)
- Sub district: Select a sub district (dropdown)
- Health facility: Select a facility (dropdown)
- Date of visit: [Date picker]
- Date of next visit: [Date picker]
- Visit number: Supervision visit number (text input)
- DHIS2 Region: DHIS2 Region (text input)
- In-charge name: In-charge name (text input)
- In-charge telephone: In-charge telephone (text input)
- Responsible LSS: Responsible LSS (text input)
- Level: Level (text input)
- Ownership: Ownership (text input)

Below the form is a table titled 'Name(s) of persons supervised':

#	Name	Sex	Profession	Phone number
1	Name	Select gender	Select profession	Telephone

### 3.2.3: Reports tab

The reports tab handles the reporting functionality. It allows the user to view summary reports of the entered data by clicking on the “survey summary” option.



LAB SPARS

Dashboard

Capture

Reports

Settings

Show 10 entries

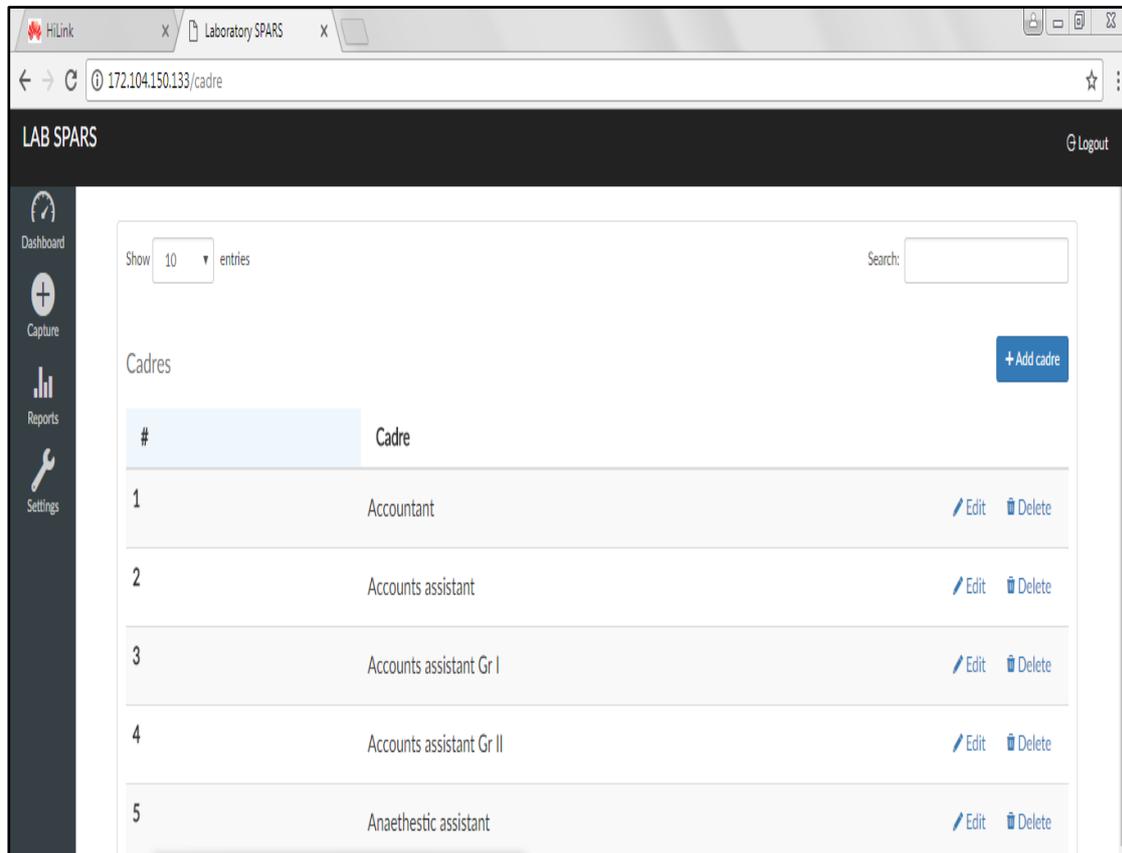
Search:

#### SUMMARY OF VISITS

#	District	Facility	Sub-district	Level	Visit number	Last visit	Next visit	
1	Galiraya	Kayunga	Bbaale	HC3	1	23 August 0017	22 October 2017	<a href="#">Show</a> <a href="#">Edit</a>
2	Siira	Mbale	Bungokho South	HC3	1	30 August 0017	29 October 2017	<a href="#">Show</a> <a href="#">Edit</a>
3	Busano	Mbale	Bungokho South	HC3	1	31 August 0017	30 October 2017	<a href="#">Show</a> <a href="#">Edit</a>
4	Makhonje	Mbale	Bungokho South	HC3	1	23 August 0017	22 October 2017	<a href="#">Show</a> <a href="#">Edit</a>

### 3.2.4: Settings tab

The settings tab allows entering additional health facility and cadre information. It also provides for the editing and removal of existing health facilities and cadres from the database. Once the user clicks on the settings tab, the page below is displayed.



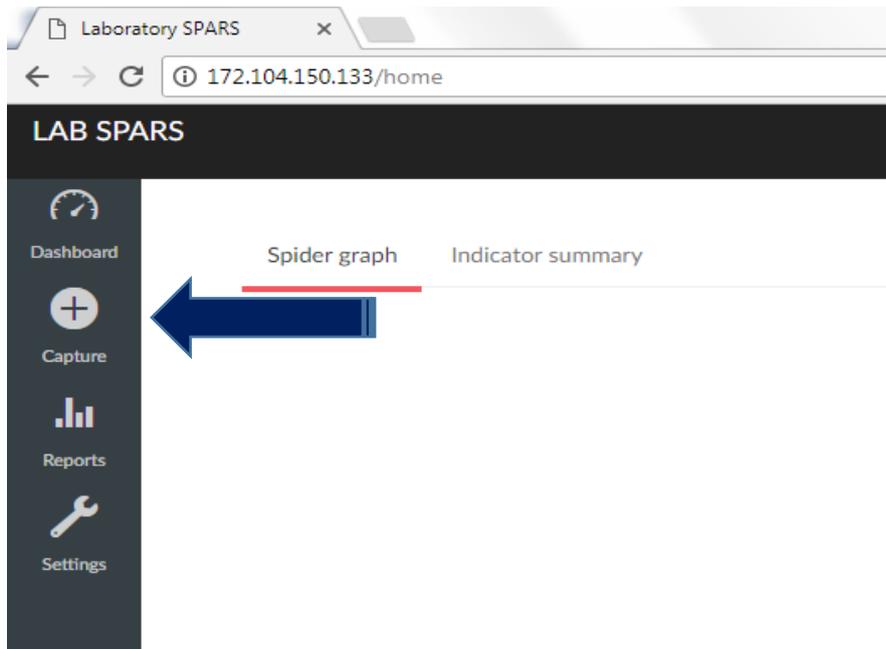
## 4.0: USING THE SYSTEM

This section provides a detailed description of all the lab SPARS database functions.

### 4.1: Data entry

To enter data into the system, the user must follow the following steps.

Step 1: From the menu, click on the capture tab as shown in the figure below.



A blank form will be displayed by the system as shown in the figure below.

Step 2: Click in each field in order to input data. For fields with drop down menus, select the respective entry from the list provided by the system as shown in the figure below.

The screenshot shows a form titled "General information" with several input fields. On the left, there are fields for "District", "Sub district", "Health facility", "Date of visit", "Date of next visit", and "Visit number". The "Sub district" field has a dropdown menu open, showing a list of options: "Abin", "Adjumani", "Agago", "Alebtong", "Amolatar", and "Amudat". The "Adjumani" option is highlighted in blue. A red arrow points from the text "Drop down list for sub district" below to the "Adjumani" option in the dropdown menu.

Drop down list for sub district

To enter dates, click in the date field, for example "Date of visit"- a calendar will be displayed as shown in the figure below. Click on the double arrows to navigate the calendar in order to obtain the scheduled date

The screenshot shows the "LAB SPARS" interface. On the left is a sidebar with navigation options: "Dashboard", "Capture", "Reports", and "Settings" (which is highlighted with a red box). The main area displays the "General information" form. The "Date of visit" field is active, and a calendar for "October 2017" is displayed. A red arrow points from the text below to the calendar. The calendar shows the days of the month, with the 1st through 7th of the month visible. Below the calendar, there are fields for "Name(s) of persons super" and "Sex".

## 4.2: Navigating the electronic form

To proceed to other sections of the form, simply select the “Next” tab at the bottom right corner your page to display the entry fields under subsequent section. As is shown in the figure below.

1 - 9 Availability of reagents and correct filling of stock cards, stock books etc. (Key information recorded for the selected vital tests and reagents, complete table 1 with Y/N/S/NA) If the facility does not carry out a particular test i.e. C1 write '0' for C1 and 'NA' for the rest of the columns (C2 to C11); if the item is not available, write '0' in C2 and proceed to C3; if stock card unavailable write '0' in C3 followed by '0' for C4 to C11 and ask C14 if stock book unavailable write '0' in C14 followed by 'NA' for C15 to C18; if AMC, not recorder write 'NA'; if item overstocked (C2) write '0'; 'NB' For all unstocked items (vital tests) write 'NA'.

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
Selected test	Reagent and unit size	Does the facility carry out these tests and record their use in forms and stock cards?	Items available (stock 1/0) (back of expiry) (0)	Stock card available (1/0)	Is physical count (PC) done monthly and physical count worked in stock card (back 3 months) (1/0)	Is the card filled correctly with reagents, units, etc. (back, expiry, storage) (1/0)	Does facility have stock card (back of form to card)	Count the no. of reagents in stock and record in physical count (PC) card (back of form) (1/0)	Does facility have stock card (back of form) (1/0)	Record the amount issued in the last 3 months (from day of survey from the stock book record for 3 items)	Record the number of days out of reagents (record for 3 items)	Record the monthly consumption (AMC) from the stock card when AM (first available) (record for 3 items)
H1 E1	HIV screening	Determine strip (100)	1	1	1	1	1	1	1	0	0	2
H2 E1	C14 testing	Select an item	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
H3 E1	FB testing	Strong Carol Fruchin 1000ns	1	0	1	1	0	0	1	0	90	0
H4 E1	FB testing	GeneXpert cartridges	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
H5 E1	Malaria testing	WCI's (Box of 25)	1	1	1	1	1	1	1	0	0	23
H6 E1	Malaria testing	Field stain A/B (1000bottle)	1	1	1	1	1	1	1	0	0	0
H7 E1	Haematology testing	PK Chemist	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
H8 E1	Gram stain test	Crystal violet 2% (1000ml)	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
H9 E1	Syphilis	HRP test strips 100	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
H10 E1	Blood grouping	Anti sera (Bottle)	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
H11 E1	Blood glucose test	Glucosemeter strips 50	1	1	1	1	1	1	1	0	0	0

Comments

Comments

1 - 9 Availability of reagents and correct use of stock cards, stock books - continued

Scoring

Use the items from table 1 to calculate the score. Remember to subtract 'NA' from the 5 items for the first 8 indicators and 'NA' from the 10 items for indicator 9 when calculating the score, e.g. where a product is not stocked by the facility.

Indicator	How to score	Score	Percentage
1. Availability of reagents for selected tests on day of visit	Sum/(5-NA)	<input type="text" value="0.00"/>	
2. Stock card availability	Sum/(5-NA)	<input type="text" value="1.00"/>	
3. Correct filling of stock card	Sum/(5-NA)	<input type="text" value="1.00"/>	
4. Does physical count agree with stock card balance?	Sum/(5-NA)	<input type="text" value="1.00"/>	
5. Is AMC in the stock card correctly calculated?	Sum/(5-NA)	<input type="text" value="1.00"/>	
6. Is Stock book correctly filled?	Sum/(5-NA)	<input type="text" value="1.00"/>	
7. Is AMC in the stock book correctly calculated?	Sum/(5-NA)	<input type="text" value="1.00"/>	
8. Number of items not overstocked?	Sum/(5-NA)	<input type="text" value="1.00"/>	
9. Order fill rate (C25)	Sum/(5-NA)	<input type="text" value="0.00"/>	

Previous Next

**Note:** Proceed to enter data as per instructions in section 4.1 above.



You will only move to the subsequent if no errors are detected by the system at the page header turns green as indicted below. If errors are detected, they will be highlighted red and you will be required to correct them before proceeding.

- 1. General
- 2. Stock management
- 3. Storage management
- 4. Ordering, receipt and reporting
- 5. Laboratory equipment
- 6. Laboratory information system

1- 9 Availability of reagents and correct filling of stock cards, stock books etc. Verify information recorded for the selected vital tests and reagents, complete table 1 with (Y=1/N=0): If the facility does not carry out a particular test i.e. C 1 write "0" for C1 and "NA" for the rest of the columns (C2 to C22); if the item is available, write "0" in C2 and proceed to C3, if stock card unavailable write "0" in C3 followed by "0" for C4 to C13 and ask C14 If stock book unavailable write "0" in C14 followed by "NA" for C15 to C18. If AMC not recorded write "NR"; If item overstocked (C17) write "0". NB: For all unselected items (vital tests) write "NS".

			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
	Selected test	Reagent and unit size	Does the facility carry out these tests (Assessor ask for all ten tracer items and score yes=1 and No=0)	Item available? (check 1/0) Mark if expired (E)	Stock card available (1/0)	Is physical count (PC) done every month and Physical count marked in stock card (check 3 months) (1/0)	Is the card filled correctly with name, unit size + Min & Max, special storage (1/0)	Balance according to stock card (record no. from the card)	Count the no. of reagents in stock and record i.e. physical count (PC)	Does balance according to the stock card & PC agree 100% (1/0)	Record the amount issued in the last 3 months from day of survey from the stock card (record for 5 items)	Record the number of days out of stock in the last 3 months from day of survey) (record for 5 items)	Record their monthly consumption (AMC) (record for 5 items) write NR if not recorded (record for 5 items)	Calculated AMC (only calculate for the 5 selected items)
R1	<input type="checkbox"/> HIV screening	Determine strips(100)	1	1	1	1	1	1	1	1	5	0	2	2
R2	<input type="checkbox"/> CD4 testing	Select an item	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

### 4.3: Submitting a completed form

Once the user has entered all the data into the respective pages, the data can only be saved into the system by clicking the “Finish” button as illustrated below.

Upon successful submission of the form, the data entry page will clear out and a blank entry form will be displayed.

You can then review the ‘Submitted Forms’ tab to confirm data entry.

### 4.4: What to do when a form fails to save

When a user submits a completed form and it fails to save, check all fields for any flags by the system. An example of a flagged entry is shown in the figure below.

The figure below shows a flagged field (highlighted in red) due to missing data.

General information

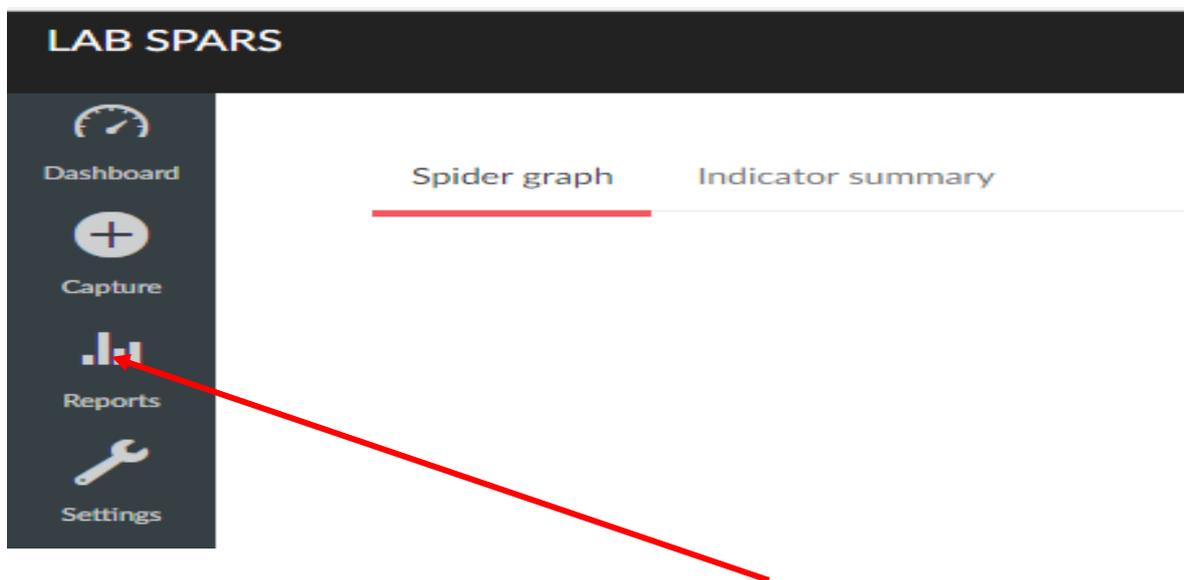
District	Adjumani	DHIS2 Region	Northern
Sub district	East Moyo	In-charge name	Opoka Charles
Health facility	Elegu	In-charge telephone	In-charge telephone
Date of visit	10 October 2017	Responsible LSS	Okello Paul
Date of next visit	09 December 2017	Level	HC2
Visit number	1	Ownership	Govt

Enter the correct value in each of the flagged fields and submit the form again.

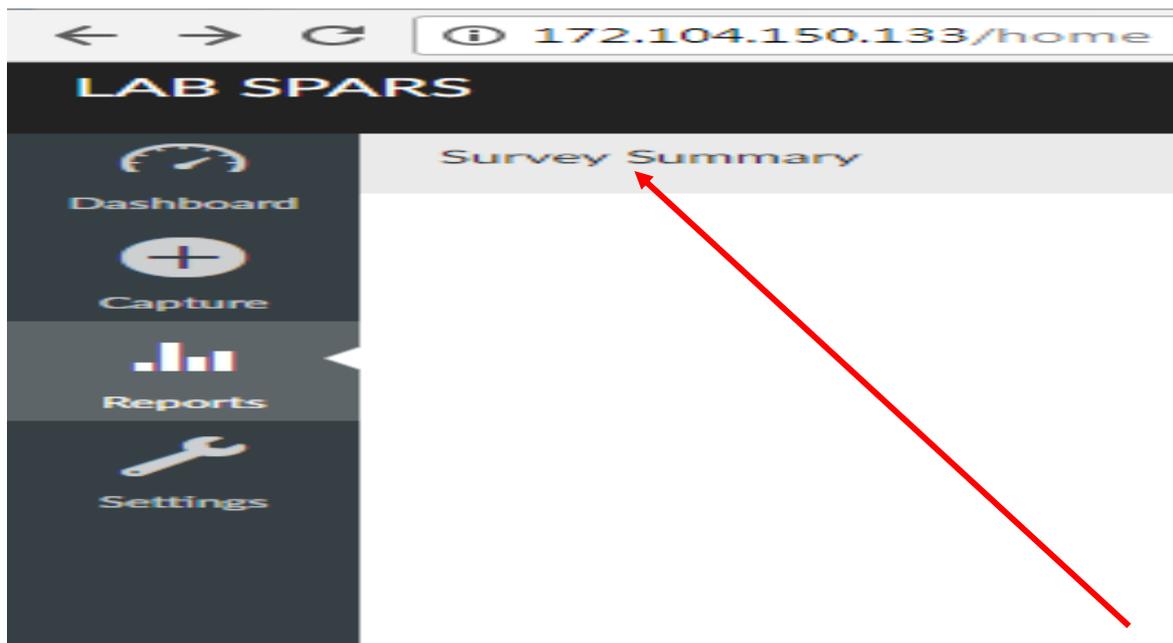
#### 4.5: Editing a form

To make changes to data that has already been submitted, follow the following steps.

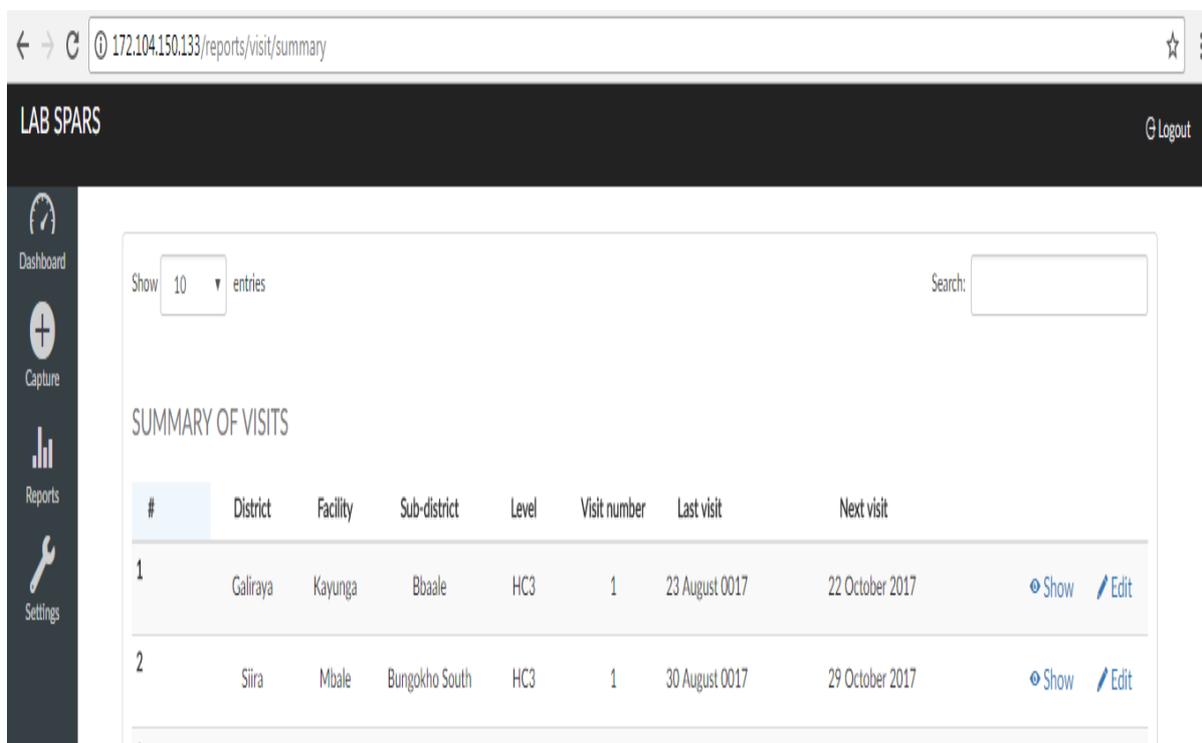
Step 1: On the menu bar, click on the “reports” tab.



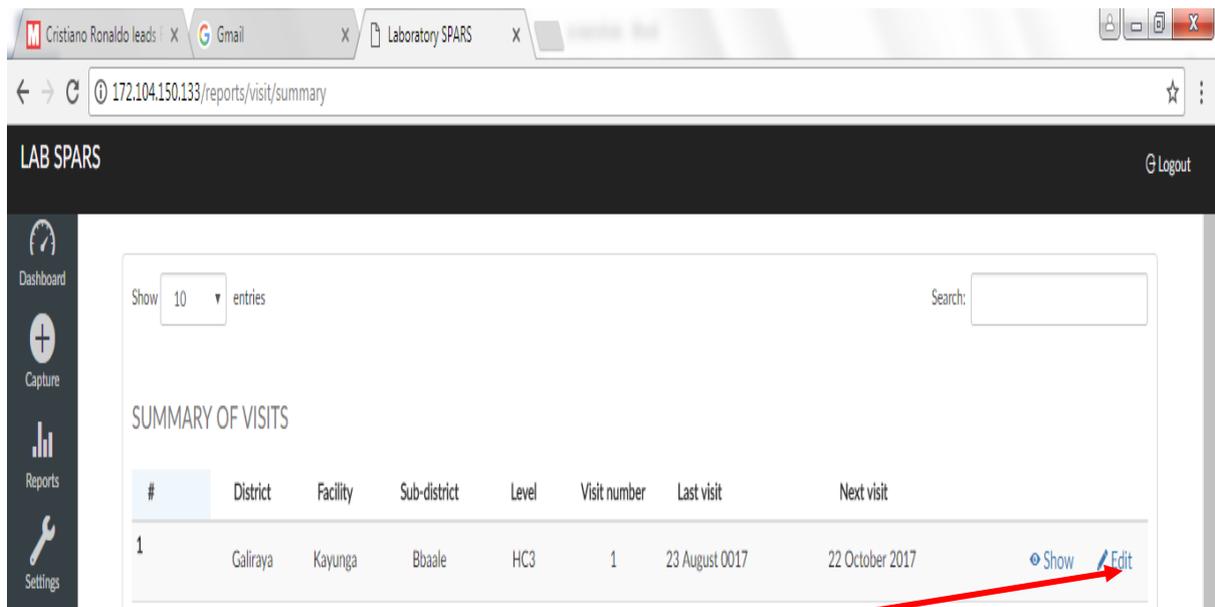
Step 2: Click on the “survey summary” option as shown below.



Step 3: A summary of all the data that has been entered into the system will be displayed as shown below



Step 4: To make a change on the database, click on the edit icon corresponding to the health facility and visit number in question as shown below



Step 5: Make the relevant changes to the form and click submit

### Option II:

Step I: In the search bar, type in the health facility name for which you want to make changes and press enter as shown below

The screenshot shows the LAB SPARS web application interface. The browser address bar displays the URL `172.104.150.133/reports/visit/summary#`. The application header includes the logo 'LAB SPARS' and a 'Logout' link. A sidebar on the left contains navigation icons for Dashboard, Capture, Reports, and Settings. The main content area features a search bar with the text 'Busano' and a dropdown menu set to '10 entries'. Below the search bar is a section titled 'SUMMARY OF VISITS' containing a table with the following data:

#	District	Facility	Sub-district	Level	Visit number	Last visit	Next visit	
3	Busano	Mbale	Bungokho South	HC3	1	31 August 2017	30 October 2017	Show Edit

At the bottom of the table area, it states 'Showing 1 to 1 of 1 entries (filtered from 69 total entries)'. A pagination control shows 'Previous 1 Next'. Two red arrows are overlaid on the image: arrow '1' points to the search input field, and arrow '2' points to the 'Edit' button in the table row.

Step 2: click on the edit icon to make changes to the form and click submit.