

This is a living document and changes will be made as per current or updated system.

Table of Contents

List of Acronyms	IX
Overview	1
Background	1
Overview of Web-based LMIS	3
Vaccine Logistics Management Information System (vLMIS)	5
vLMIS Features	7
Assumptions	8
System Requirements	8
Browser Support	8
Step-by-Step Guide	9
vLMIS Homepage	10
Homepage Menu	11
Contact Us Tab	11
Frequently Asked Questions Tab	11
Changing Your Password	12
Forgot Password	13
Logging Out	14
Inventory Management User	15
Dashboards	17
Overview	18
National Level Dashboards	19
Pakistan's Daily Immunization Performance	19
Routine Immunization Dashboard tab	20
Inventory Management Dashboard Tab	22

	Campaign Management Dashboard Tab	23
	Provincial Level Dashboards	26
	Routine Immunization Tab	27
	Inventory Management Tab	29
	Cold Chain Equipment Management Tab	32
	Campaign Management Tab	37
	District Level Dashboards	39
	Routine Immunization Tab	40
	Inventory Management Tab	45
	Campaign Management Tab	47
Inven	tory Management	49
	Add Requisition	50
	Requisition Search	53
	Requisition Approval	54
	Stock Receive (Supplier)	55
	Stock Receive From Store	59
	Stock Receive Search	62
	Batch Management	64
	Stock Issue Search	73
	Add Adjustment	75
	Search Adjustment	76
	Purpose Transfer	78
	VVM Management	79
Stock	Placement	81
	Manage Location	81
	Location Status	82

Cold Chain	8	6
Cold Chain Status Update	8	7
Reports 89		
Overview	8	:9
Summary Reports	9	1
Provincial Report	9	2
District Report	9	5
Tehsil Report	9	8
UC Report	10	1
Stock Availability Repo	ort10	4
Yearly Reports	10	8
Provincial Yearly Repo	rt10	9
District Yearly Rep	oort	.1
Reporting and Wastag	es Rate11	.3
Data Performance	11	.6
Shipment Report	11	.6
Non Reported District	s11	9
Reported Districts	12	2
Inventory Reports	12	5
Batch Shelf Life Repor	t12	.5
Inventory Status Repo	rt12	6
Stock Ledger Report	12	6
Consumptions Reports	12	.7
Vaccines Coverage Re	port12	7
Provincial Vaccine Cov	verage Report12	8
Vaccine Stock Status a	nd Wastage Report12	9

Vaccine Dropout Rate Report131
Coverage Reports
BCG Coverage Report
PCV Coverage Report
Pentavalent Coverage Report134
tOPV Coverage Report135
Measles Coverage Report136
TT Coverage Report137
CCEM Reports
Storage
Inventory146
Refrigerators Freezers
Cold Rooms156
Cold Boxes
Campaign Reports
Campaigns Summary (Coverage)163
Catch-Up165
Status of Campaigns166
Maps 167
Overview167
Why Web Mapping is important?167
Web mapping in Pakistan168
Maps
Graphs 179
Graphs Menu
Comparison Graphs180

Simple Graphs	195
CCEM Graphs	200
Storage	201
Cold Boxes	207
Generators Stabilizers	210
vLMIS Explorer	213
Consumption User - Tehsil Level	217
Monthly Stock Consumption	220
Vaccine Consumption Data Entry Fields for Operators	220
Update Consumption Report	225
View Consumption Report	228
Log Book 231	
Cold Chain Status Update	233
vLMIS Explorer	235
Consumption User – Union Council	239
Consumption User - UC Level	239
Monthly Stock Consumption	242
Vaccine Consumption Data Entry Fields for Operators	242
Update Consumption Report	247
View Consumption Report	250
Log Book 253	
Cold Chain Status Update	255
vLMIS Explorer	257
Cold Chain	261
Cold Chain Logistics	261
Why is Cold Chain Logistics important?	262

Environmental factors	263
Cold Chain Module in vLMIS	264
Cold Chain Storage	265
Recommendations	266
Cold Chain Equipment Management (CCEM)	268
CCEM Operator	270
Dashboard	272
Cold Chain	277
Maps	306
CCEM Reports	308
CCEM Graphs	308
Campaigns	309
Campaigns	309
Campaign Stock and Reporting Cycle	310
Campaign Enhancements	310
Campaign User	312
Campaign Options	314
New Data Entry	315
Data Entry History	316
Campaign Readiness	318
Campaign Readiness UC	321
Reported UCs	324
Campaign Reports	325
Campaigns Summary (Coverage)	326
Campaigns Detail (Coverage)	327
Catch-Up	328

List of Acronyms

AJK	Azad Jammu & Kashmir				
AMC	Average Monthly Consumption				
BCG	Bacillus Calmette–Guérin Vaccine				
BHU	Basic Health Unit				
bOPV	Bivalent oral polio vaccine				
CCEM	Cold Chain Equipment Manager				
DHCSO	District Health Communication Support Officer				
DHQ	District Head Quarter Hospital				
DMS	Deputy Medical Superintendent				
DSV	District Superintendent Vaccination				
EDO	Executive District Officer				
FDI	Federal Directorate of Immunization				
EPI	Expanded Program on Immunization				
FATA	Federally Administered Tribal Areas				
GAVI	Global Alliance for Vaccines and Immunization				
GOP	Government of Pakistan				
HF	Health Facility				
ICT	Information Communications Technologies				
IPV	Inactivated Polio Vaccine				
IM	Inventory Management				
IT	Information Technology				
JSI	John Snow, Inc.				
KP	Khyber Pakhtunkhwa				
LMIS	Logistics Management Information System				
LQAS	Lot Quality Assurance Sampling				
MIS	Management Information System				
MIPC	Ministry of Inter-Provincial Coordination				
MNHRC	Ministry of National Health Services, Regulation and Coordination				
NID	National Immunization Days				
OPV	Oral Polio Vaccine				
PEI	Polio Eradication Initiative				
PPHI	Peoples Primary Healthcare Initiative				
SDP	Service Delivery Point				
SIADs	Short Interval Additional Dose Strategy				
SIAs	Supplementary Immunization Activities				
SOP	Standard Operating Procedure				

Syr.	Syringe				
THO	Taluka Health Officer				
THQ	ehsil Head Quarter Hospital				
tOPV	Trivalent Oral Polio Vaccine				
TSI	Tehsil Sanitary Inspector				
UC	Union Council				
UNICEF	United Nations Children's Fund				
UPEC	Union Council Polio Eradication Committee				
USAID	United States Agency for International Development				
WHO	World Health Organization				

Overview

With Vaccine Logistics Management Information System

The Vaccine Logistics Management Information System User Guide provides step-by-step instructions that help you get started with Vaccine Logistics Management Information System (vLMIS) functions and features and provides guidelines on managing relevant Vaccines Logistics data using the Vaccine Logistics Management Information System accounts.

This guide is organized according to the logical flow of Vaccine Logistics Management Information System features and describes tasks in the same order you can use while working with the product.



Before You Begin...

It is recommended to have a working internet connection for web-access to the application in order to review the product side-by-side when reading this manual.

Background

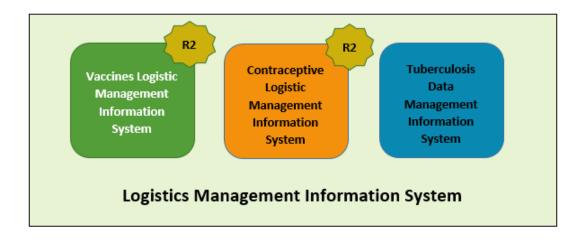
In July 2011, Pakistan's first web-based Logistics Management Information System (web-LMIS) for contraceptive products was launched, which is currently in use in all 143 districts. Following the success of the Logistics Management Information System for Contraceptives, the design of a web-based Tuberculosis Drug Management Information System (TBDMIS) was rolled-out in March, 2013. In May 2013, Vaccine Logistics Management Information System has also been

incorporated into the current Logistics Management Information System in 83 priority districts in Pakistan, thus making the web-based Pakistan Logistics Management Information System as one automated logistics management information system for all health commodities, i.e., Contraceptives, Tuberculosis and Vaccines.

The Vaccine Logistics Management Information System (vLMIS) is designed to replace the current manual Vaccine Logistics Record keeping system and therefore considers the current system's strengths and challenges.

Among the strengths in the current vaccine logistics data is that key data items are collected, such as consumption, stock balance, and storage capacity. Some logistics-related key performance indicators have been defined and are tracked. Data is collected routinely and there is a defined process flow for reporting up the system. There are established forms and spreadsheets used to collect data, and a vaccine stock management software solution used at the National EPI Store. There is a culture of compiling and analyzing data for logistics decision making. The data on existing cold chain equipment (age, type, capacity, operability) in the national cold chain inventory as well as facility profile data has also been collected to help identify gaps in the cold chain storage capacity and functionality that need to be addressed.

However, there are significant challenges in the collection, use and management of vaccine logistics data. Routine reporting of logistics data is impeded by poor accuracy and timeliness of the reports and inadequate supervision and feedback on reporting. Wastage (due to open vial) data are under-reported and poorly tracked. Resupply is calculated based on demographic based targets (using population figures that are outdated) rather than consumption data, and stock balance is not always factored into resupply decisions. Because data is not available in real-time electronic form to all stakeholders, there is very limited visibility in the pipeline below the national level.



Overview of Web-based LMIS

Pakistan Web-based LMIS provides transparency to all stakeholders based on user rights, is easy to use, and integrates both routine and special immunization campaign vaccine logistics data. Standardized reporting forms and Data triangulation is implemented to validate data and improve visibility in wastage rates.

Resupply quantities for routine EPI are calculated based on average monthly consumption and stock balances, and wastage rates are calculated automatically. The use of stock balance, consumption and issued data, losses and adjustments are also collected.

New routine reporting forms are aquatically printed using vLMIS inventory management module in order to collect data from service delivery points, along with vaccine logistics standard operating procedures (SOPs) for each level of the supply chain.

The Vaccine Logistics Management Information System contains the following features:

- 1. A module for Vaccine reporting in the centralized web-accessible data repository of LMIS to report data from data providers. Data Providers can perform monthly data entry. This also includes being able to generate reports for themselves.
- 2. The data provided by different geographical levels tracks vaccines in different data entry forms. The Stock Issue and Receive Data, (National, Provincial, Divisional, District, Tehsil)

users will enter vaccines logistics data with batch and expiry information, while Monthly Consumption data (Tehsil and Union Council level) users will report data without batch. Wastage will be calculated automatically with the help of consumed and unused vial information.

- 3. The cold-chain inventory and use is tracked in vLMIS. This module is capable of entering new cold chain assets as well as its current operational status. Each month, along with other logistics data, users will update the operational status of their cold chain assets.
- 4. The Administrator will manage vLMIS and create all of the necessary data in order to assist users to continue to provide and review logistics data.
- 5. Data Reviewers can access vLMIS using the 'policy' user account and get reports about the country's provinces and districts to help them in logistical decision-making regarding supply chain management in their assigned districts.

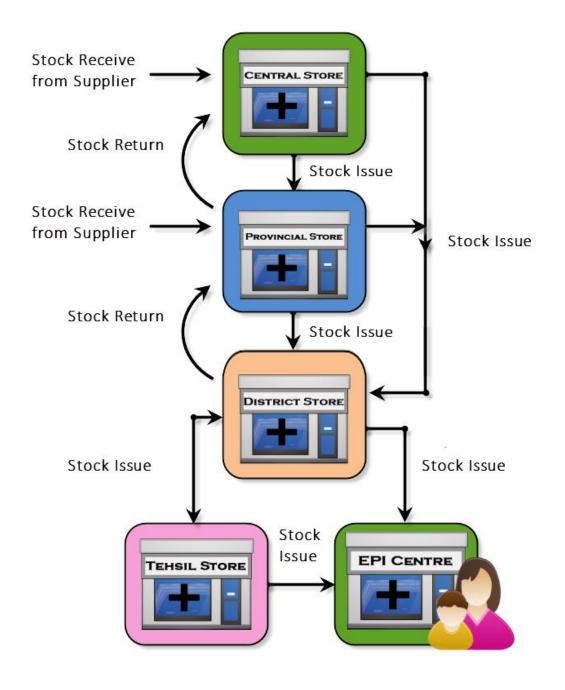
Vaccine Logistics Management Information System (vLMIS)

The web-based Vaccine Logistics Management Information System has been designed to help plan and manage the immunization resources and ensure that vaccines are always available to meet demand at the right time, to the right place, at the right cost, in the right condition of the right product in the right amount – No matter where they live.

The web-based Vaccine Logistics Management Information System (vLMIS) is an extension of the Logistics Management Information System (LMIS) and is designed to replace the current paper-based logistics information system that is being used for managing the vaccine distribution and logistics.

The Vaccine Logistics Management Information System introduces systematic vaccine product management and create sustainable dependencies among different vaccine procurement procedures and geographical level operations.

The web-based Vaccine Logistics Management Information System (vLMIS) is easy to use and contextualized to fit local stakeholder's structure and the devolution of health and population programs to provincial governments. The system brings in district and EPI-level reporting by aggregating facility-level data through paper-based reports. With a unified system for reporting of vaccine and non-vaccine logistics data at different supply chain levels, the vLMIS system is able to integrate information from all levels. The web-based vLMIS can be accessed at http://v.lmis.gov.pk.



The Vaccine Supply Chain

vLMIS Features

Vaccine Logistics Management Information System provides the following functions and features:

Role-Based Access for Users

Users are authenticated based on their geographical levels and the roles that are associated with them.

Cold Storage Management

The system automatically update the cold storage space during stock placements and picking for better management of inventory.

Cold-Chain Asset's Database

The details of Cold-chain assets, their location, status and capacity is tracked in vLMIS for maintaining the cold-chain of immunization vaccines.

Informational Reports

These reports enable you to view the reporting compliance and vaccine stock status, coverage and wastage at various geographical levels.

Inventory Management

Stock Issued, Received, and adjustments are recorded on transaction basis in vLMIS by the EPI Store Users.

Batch Management

The batch management prioritize stock movement on the basis of First Expiry First Out (FEFO) and Vaccine Vial Monitor (VVM)

Consumption Reporting

Service delivery point consumption data is collected and recorded daily and compiled and reported online monthly using vLMIS.

Graph and Maps

Graphs and maps enables users to view and compare reported data of different indicators over time.

Assumptions

This user guide assumes that you already have Vaccine Logistics Management Information System accounts as per your geographical level and role. This user guide also assumes that you are familiar with basic web-application account login procedures.

System Requirements

The Vaccines Logistics Management Information System is accessible from any Desktop PC, Mac, or Linux computer with Internet access and a supported Web-browser.

Browser Support

The following browsers and later versions fully support vLMIS standard view:

- Mozilla Firefox (Windows, Mac, Linux)
- Google Chrome (Windows, Mac, Linux)
- Netscape (Windows, Mac, Linux)
- Safari (Mac)
- Internet Explorer 9 and above (Windows)

Process to using Vaccines Logistics Management Information System

This section explains the step-by-step instructions on getting started with vLMIS. In this section, you will learn about:

- 1. The Vaccine Logistics Management Information System User Interface.
- 2. Logging Into Vaccine Logistics Management Information System.
- 3. Changing your account password.
- 4. What to do if you forget your password.
- 5. Logging Out of Vaccine Logistics Management Information System.

The Vaccine Logistics Management Information System users are basically store operators that manage and record the inventory and stock transactions. Each geographical level entails different user roles associated with their stores operations.

vLMIS Homepage

The Logistics Management Information System has a single landing page for its three modules for Contraceptives, TB, and Vaccines Management Information System. Enter the URL http://lmis.gov.pk to access the application homepage.



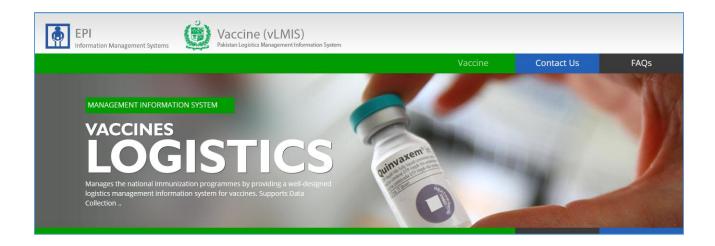
Users can also access vaccine LMIS application directly by using http://v.lmis.gov.pk URL. Once the user enters the URL http://v.lmis.gov.pk, a user interface (homepage) will appear. The homepage displays a basic introduction to the 'vaccine LMIS'.



Before You Begin...

It is recommended to use vLMIS with Google Chrome or Mozilla Firefox. Older generations of browsers are also supported; however, their use can lead to issues with on-screen formatting and display.

Once you click Vaccines, homepage for vLMIS will display.



Homepage Menu

Applies to any user.

The available menu items can be found on the top of homepage screen. The components are displayed adjacently, as shown in the image below:



Contact Us Tab

The Contact Us tab contains addresses, telephone numbers and email addresses (where available) for key personnel as a system communication list. Therefore, the user of LMIS will be able to see contact details of other stakeholders and can contact them as needed.

Frequently Asked Questions Tab

Applies to any user.

The menu also contains a FAQs tab in order to provide guidance towards the most frequently asked and critical questions.

Logging into Vaccine Logistics Management Information System

vLMIS is a web-based inventory and cold chain management application that makes it simple for beginners and experienced users to report inventory and cold chain data, view performance and graphical reports as well as maps.



Before You Begin...

Make sure you have your correct login credentials. When you register with vLMIS, the accounts and its related details along with the login domain details will be provided to you by the vLMIS Administrator. In case you do not have login, please send an email at support@lmis.gov.pk.

To log into vLMIS:

- 1. Go to http://v.lmis.gov.pk
- 2. Click the Vaccines Tab. vLMIS login page will be displayed.



Specify the **Username** and **Password** provided to you by the Administrator and click **Login**.

.



You can change the password provided to you by the administrator. See "Changing Your Password" for details.

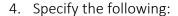
Never give out your password to anyone for security purposes.

Changing Your Password

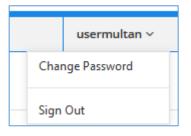
Applies to any registered user.

To change your vLMIS password:

- Log into vLMIS application.
 The welcome screen displays.
- 2. On the right-side of the application, the user login name appears.
- 3. Under the login name, click Change Password as shown in the image.



- Old Password: specify your old password.
- **New Password**: specify the new password.
- Confirm New Password: retype your password.







Password Requirements

Your password must have a combination of a capital alphabet and one Numeric.



Never give out your password to anyone for security purposes.

5. Click **Change Password**.

Your password will be changed successfully.

Forgot Password

Applies to any registered user.

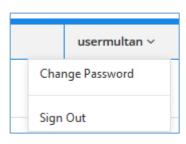
In case you have forgotten your password:

1. You can contact on this email address: support@lmis.gov.pk.

Logging Out

Applies to any registered user.

When signed in, click **Sign out** on the right-side of the application, as shown in the image below:



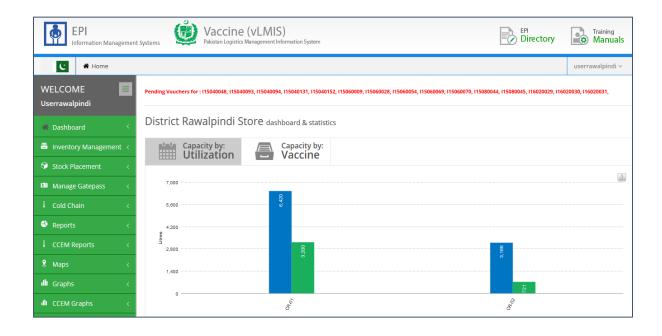
Inventory Management User

Of Vaccine Logistics Management Information System

This section gives an overview of the User and describes the tasks need to be performed while using Vaccine Logistics Management Information System (vLMIS).

An Inventory Management user can perform inventory management and update the status of cold chain assets of the store. The user can also view the Reports, Maps and Graphs features of the Vaccine Logistics Management Information System.

Logging into the IM User account displays the Home page screen by default, as shown in the image below:



On the left side of the dashboard screen, the User will see the menu. User can sign out of the application by using the following link on the right side of the screen.



The User screen includes the following features:

Dashboards: User can view dashboards containing graphs, maps, and reports by using this tab.

Inventory Management: enables the user to manage the stock in the inventory. Users can issue stock to tehsil level stores / facilities as well as send the stock back to the upper level facility / store.

Stock Placement: enables the user to manage stock locations within the store.

☆ vLMIS Explore

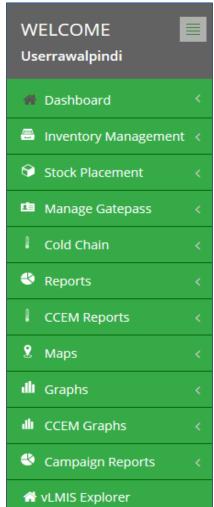
Manage Gate Pass: enables users to generate and issue gate passes after stock issuance.

Cold Chain: enables the user to report the cold chain asset's status of the assigned stores, which helps identify the working condition of the cold-chain machine.

Reports: user can view the different reports. The reports provides information about the consumption, average monthly consumption (AMC), month of stock (MOS), quantity on hand, stock received, stock issued etc. of all products managed within the database at different Levels.

CCEM Reports: user can view the data analysis reports for cold chain equipment. Refer to the "CCEM Reports" section for details.

Maps: enables user to view the geographical maps. Refer to the "Maps" section for details.



Graphs: user can view simple and comparison graphs. Refer to the "Graphs" section for details.

CCEM Graphs: user can view CCEM graphs for different cold chain items. Refer to the "CCEM Graphs" section for details.

Campaign Reports: user can view reports for the campaigns being conducted. Refer to the "Campaign Reports" section for details.

vLMIS Explorer: user can view the Monthly Report data for the selected store and the specified month - year.

Dashboards

This section explains the step-by-step instructions on the dashboard features that can be used by the Vaccine Logistics Management Information system's users.

The Vaccine Logistics Management Information System enables you to login as an authenticated user to view different dashboards. These dashboards are available to different level users such as:

- Cold Chain Capacity Dashboards
- National Level Dashboards
- Provincial Level Dashboards
- District Level Dashboards

Overview

Dashboard is a visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance.

On the left-side of the screen, user can see the main menu with Dashboard tab.

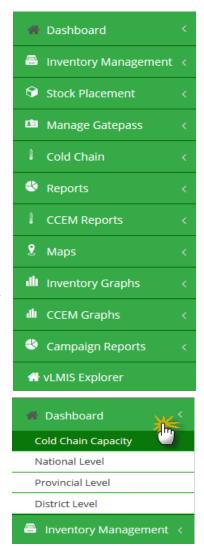
Users can view the cold chain capacity and can select the level by clicking the Dashboard tab.

When User selects the Cold Chain Capacity, following screen displays.

The following dashboard tabs are available by default.

- Capacity by Utilization
- Capacity by Vaccine

Select the National Level to view the Dashboard.



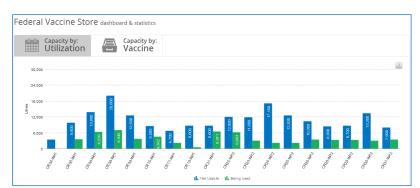
National Level Dashboards

Applies to all user levels.

When any level user logs in, user will view the dashboard tabs as shown below:

The following dashboard tabs are available by default.

- Cold Chain Equipment
 Management
- Routine Immunization
- Inventory Management
- Campaign Management



Pakistan's Daily Immunization Performance

This page presents overall analytics of data in the form of following dashboards:

- Cold chain capacity
- Stock status
- Stock priority

Users can further drill down the dashboards to view the product wise usable summary and priority vaccines distribution detail.

Store:

Foldered Vaccine Store

Routine Immunization Dashboard tab

Routine immunization dashboard allows users to quickly view reports in a graphical manner by clicking on this tab.

Reporting Rate

This graph is showing that the reporting rate in each province and also shows the province wise comparison.

Wastage Rate

To show the provincial level Vaccine wastage comparison to take measures where the wastage is at higher side.

Average Monthly Consumption (AMC)

Users can view AMC as average of aggregated consumption of the last three non-zero consumption months of vaccines and related products.

Users can select the following filters:



- Year: select the year from the drop-down list.
- **Period:** select the period for which you want to view report.
- Vaccines: select the product from the drop-down list.

Click **Go** to view routine immunization reports.

Reporting Rate and Wastage Comparison

Routine immunization management dashboard shows reporting rate and wastage comparison for each province / region. Users can view the comparison graph for reporting rate and wastage rate. The graph depicts the overall reporting and wastage rates for each province.

Users can also export charts in JPEG, PNG, PDF and SVG format.

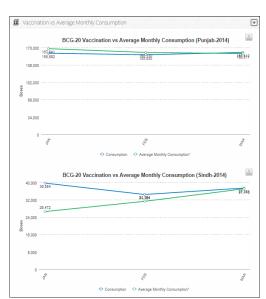
Download as JPEG image
Download as PNG image
Download as PDF document



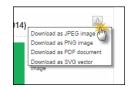
Vaccination vs Average Monthly Consumption

Routine immunization management dashboard also shows vaccination vs average monthly consumption (AMC) for each province / region. Users can view the comparison line graph for consumption and AMC. The graph depicts the overall consumption for each province.

Average Monthly Consumption (AMC): Average Monthly Consumption is calculated as average of aggregated consumption of the last three non-zero consumption months of vaccines and related products.



Users can also export charts in JPEG, PNG, PDF and SVG format.



Inventory Management Dashboard Tab

Inventory management allows users to quickly review dashboards by clicking on this tab.

Stock Status

To show product wise stock status at National level.

Month of Stock

The user can have a bird's eye view of Month of Stock (MOS) map.

Users can select the following filters:

Year:	2016	•	Period:	1st Quarter	•	Vaccines:	BCG-20	•	GO
-------	------	---	---------	-------------	---	-----------	--------	---	----

- Year: select the year from the drop-down list.
- **Period:** select the period for which you want to view report.
- Vaccines: select the product from the drop-down list.

Click **Go** to view inventory management dashboards.

Vaccination vs Month of Stock

Inventory management dashboard shows vaccination and stock on hand comparison for each province / region. Users can view the comparison line graph of consumption vs stock on hand for each province.

Stock on Hand (SOH): Stock on Hand is stock available

at store at any time interval

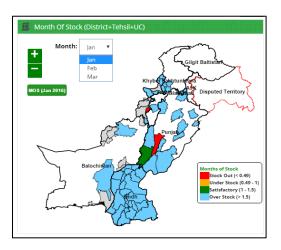
Users can also export charts in JPEG, PNG, PDF and SVG format.





Month of Stock Map

Inventory management dashboard also shows month of stock map at the national level. Users can select the **Month** from the drop-down menu to view the MOS map for each month in the selected quarter.



Campaign Management Dashboard Tab

Campaign Management dashboard allows users to view the campaign dashboards by clicking on this tab. It will show:

• Campaign Data Entry Status

Shows the data entry stats for a selected campaign in the pie chart.

• Day wise Target vs Coverage

Shows the day wise comparison of target versus coverage stats.

• Missed Children Types

This is the comparison graph of defined different missed as well as unreachable list.

• Campaign vaccines (vials)

To show the list of each campaign's vaccines (vials) which are used in any or all districts in the specified time span.

Users can select the following filter:

• Campaign: select the desired campaign from the drop-down list.

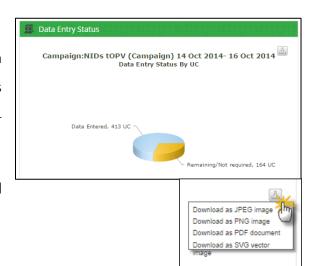


Click Go to view campaign management dashboard graphs.

Data Entry Status

Campaign management dashboard shows the data entry status for each district in a pie chart. Users can view the reported (Data Entered) and nonreported (Remaining) districts in the chart.

Users can also export charts in JPEG, PNG, PDF and SVG format.



Day Wise Target vs Coverage

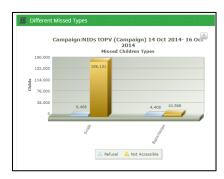
Campaign management dashboard also shows day wise target vs coverage for the selected campaign at the national level.

Click on **Target** or **Coverage** to view the target or coverage bar chart respectively. Users can also export charts in JPEG, PNG, PDF and SVG format.



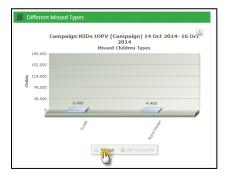
Missed Children Graph

Campaign management dashboard also shows different type of the missed or unreachable children in a graphical manner.



Click on **Refusal** or **Not Accessible** to view the refusal or not accessible children on the bar graph respectively.

Users can also export charts in JPEG, PNG, PDF and SVG format.



Campaign Vaccines

Campaign management dashboard also shows the list of each campaign's vaccines which are used in any or all districts in the specified time span.



Users can also export charts in JPEG, PNG, PDF and SVG format.

Select the Provincial Level to view the desired Dashboard.

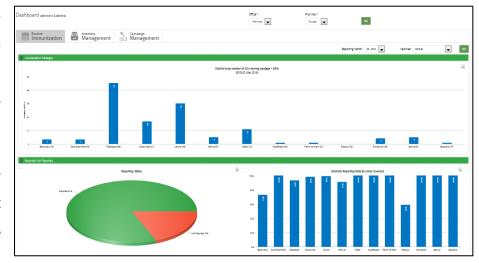


Provincial Level Dashboards

Applies to all user levels.

When the user selects the provincial level, a dashboard screen will be displayed with three tabs.

User can select the Office and Province at the top of the dashboard screen.



Province is selected by default at the provincial level dashboard. Select the Province and click GO.

The following dashboard tabs are available by default.



- Routine Immunization
- Inventory Management
- Campaign Management

Routine Immunization Tab

Routine immunization management dashboard allows users to quickly view reports in a graphical manner by clicking on this tab.

Unacceptable Wastage

This graph is the district wise percentage of vaccine wastages for the selected vaccine.

Reporting Status

To show the reporting and non-reporting rates pie chart for each district in the selected province.

Month of Stock (MOS)

User can view Month of stock status for the selected province (district wise).

Consumption

Users can view consumption status in term of doses for the select province (district wise).

Reporting Month: 06 - 2014 ▼

Users can select the following filters:

- Reporting Month: select the reporting month and year from the drop-down list.
- Vaccines: select the product from the drop-down list.

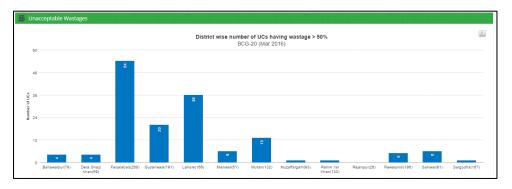
Click **Go** to view routine immunization graphs.

Unacceptable Wastages

Routine immunization management dashboard shows the district wise unacceptable wastages of the selected vaccine for the province / region. Users can view the bar graph for the wastage rates

in each district.

Users can also export graphs in JPEG, PNG, PDF and SVG format.

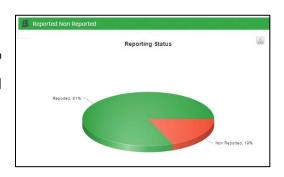


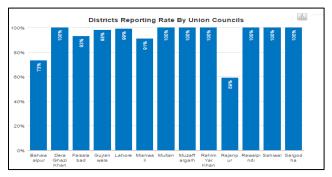
Reporting Status

Routine immunization management dashboard also shows reporting status for each district in the selected province in the form of a pie chart.

Click the reported or non-reported portion of the pie chart to view the district wise reporting rate.

Users can also export charts in JPEG, PNG, PDF and SVG format.



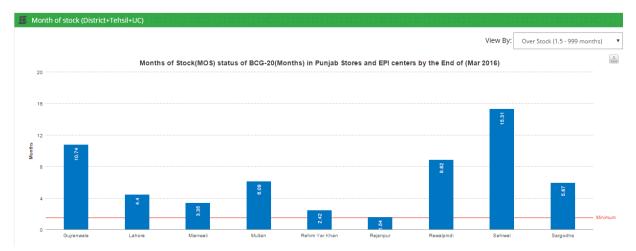


Month of Stock

Routine immunization management dashboard also shows the month of stock status for each district in the selected province in the form of a bar graph.

Select the **View By** from the drop-down menu. A bar graph for the over stock level for the selected vaccine in the districts of the selected province.

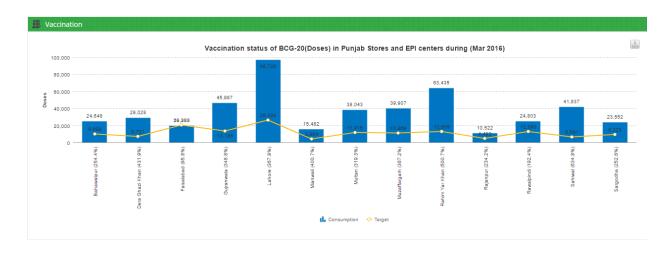




Users can also export charts in JPEG, PNG, PDF and SVG format.

Consumption Graph

Routine immunization management dashboard also shows the target vs. consumption graphs of the selected vaccine for each district in the selected province in the form of bar and line graphs.



Users can also export charts in JPEG, PNG, PDF and SVG format.

Inventory Management Tab

Inventory management allows users to quickly review reports by clicking on this tab.

Stock Status by Item

Shows the stock status by item for each district in the selected province.

Vaccine vial monitor (VVM) Stage Status

To show vaccine vial monitor (VVM) stage status at the Provincial level.

Stock Status

To show product wise stock status at Provincial level

Month of Stock

The user can have a bird's eye view of Month of Stock (MOS) map.

Stock Expiry Status

It shows the stock expiry status pie chart for the selected vaccine.

Users can select the following filters:



• Reporting Month: select the reporting month and year from the drop-down list.

• Vaccines: select the product from the drop-down list.

Click **Go** to view inventory management dashboard.

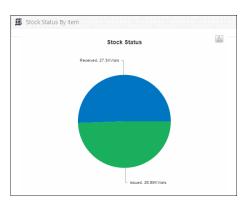
Stock Status by Item

Inventory management dashboard shows the stock status by item for all the districts in the selected province / region. Users can view the pie graph for the stock status (in vials) in each district.

Click the received stock portion of the pie chart to view

Users can also export charts in JPEG, PNG, PDF and SVG format.

Receive From and Issue To list of stores.

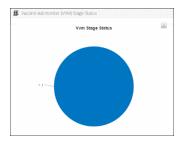


Rece	eive From (Warehou	se Name)	
S.No	Warehouse Name	Quantity	Batch Name
1	Federal EPI Store	27300	036D2054

Issu	e To (Warehouse Name)		
S.No	Warehouse Name	Quantity	Batch Name
1	Distrtict Rawalpindi Store	2400	036D2053
2	District Multan Store	2370	036D2054
3	Distrtict Faisalabad Store	2015	036D2052
4	District Sialkot	2000	036D2052
5	District Vehari	1590	036D2053
6	District Khanewal	1520	036D2054
7	Distrtict Bhawalpur Store	965	036D2054
8	District Lodhran	900	036D2054
9	District Kasur	895	036D2053
10	Distrtict Sargodha Store	820	036D2052
11	District Okara	820	036D2053
12	District Sheikhupura	775	036D2053
13	District Bahawalnagar	755	036D2057
14	District DG Khan Store	670	036D2053
15	District Jhang	665	036D2053

Vaccine vial monitor (VVM) Stage Status

Inventory Management dashboard also allows users to view vaccine vial monitor (VVM) stage status pie chart at the Provincial level. The



pie chart will be shown for the selected vaccine and the reporting month for one province / region.

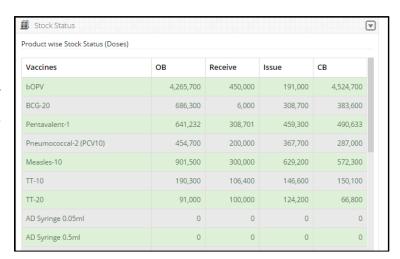
Click on the pie chart to view **VVM Stage Status** list according to the batch.

Users can also export charts in JPEG, PNG, PDF and SVG format.

Vvm Stage Status			
S.No	Batch Name	Quantity	
1	036D2053	7221	
2	036D2054	11398	
3	036D2057	2751	
4	036D2058	945	
5	036D2052	5700	
6	837-1	2190	
7	037G4064	23780	

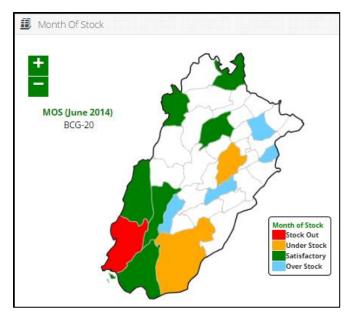
Stock Status

Inventory management dashboard shows the stock status (in doses) for all the vaccine products in the selected province / region. Users can view the report for the vaccines such as: OB (Opening Balance), Receive, Issue and CB (Closing Balance)



Month of Stock Map

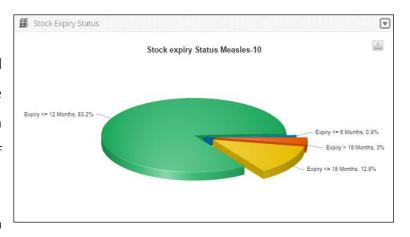
Inventory management dashboard also shows month of stock map at the provincial level. Users can view the MOS map for the selected month and vaccine.



Stock Expiry Status

Inventory management dashboard also shows stock expiry status pie chart at the provincial level. Users can view the percentage expiry status of the selected vaccine in months.

Users can also export the pie chart in JPEG, PNG, PDF and SVG format.



Cold Chain Equipment Management Tab

Cold Chain Equipment Management dashboard allows users to view the cold chain capacity map at the provincial level by clicking on this tab.

• Cold Chain Capacity

This map shows the map of Pakistan highlighting the cold chain capacity of each district in the selected province.

• Vaccine storage capacity at +2c to +8c

To show the storage capacity of vaccines at certain temperature range within selected health facilities.

• Vaccine storage capacity at +20c

To show the storage capacity of vaccines at 20 degrees centigrade within selected health facilities.

• Icepack freezing capacity against routine requirements

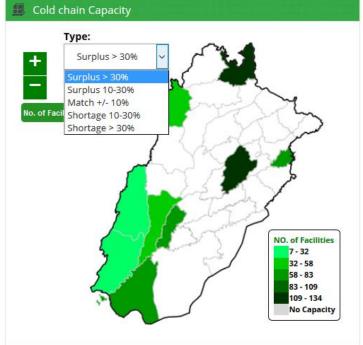
To show the icepack freezing capacity within selected health facilities.

Cold Chain Capacity

Cold Chain Capacity map displays number of health facilities in a district with their level of cold chain capacity meeting with their requirements.

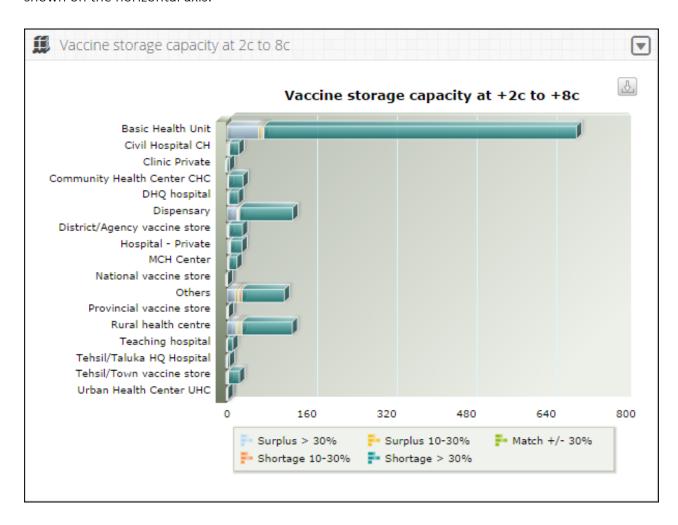
The user can choose health facility capacity type from the drop-down menu.

- Surplus > 30%: Health facilities having cold chain capacity 30% more than their requirement
- Surplus 10%-30%: Health facilities having cold chain capacity around 10-30% than their requirement
- Match: Health facilities having cold chain capacity matching with their requirement
- Shortage 10%-30%: Health facilities having cold chain capacity 10-30% less than their requirement
- Shortage > 30%: Health facilities having cold chain capacity 30% less than their requirement



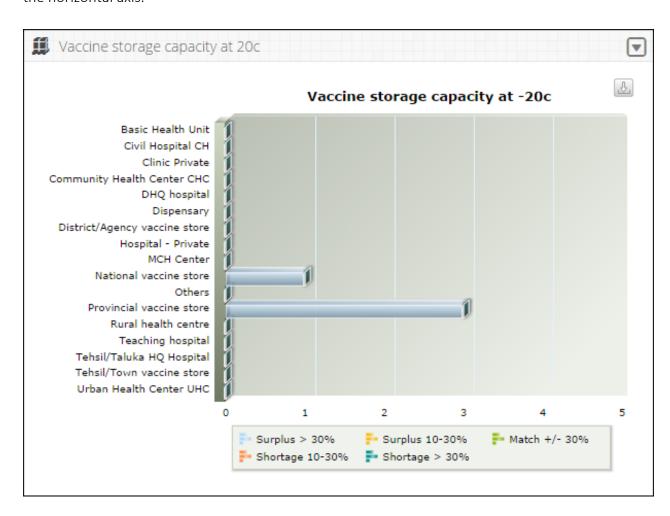
Vaccine Storage Capacity at +2c to +8c

Vaccine Storage Capacity at +2c to +8c will be displayed on the Provincial level in the form of a bar graph. The user can view the health facilities list on the vertical axis while the capacity range is shown on the horizontal axis.



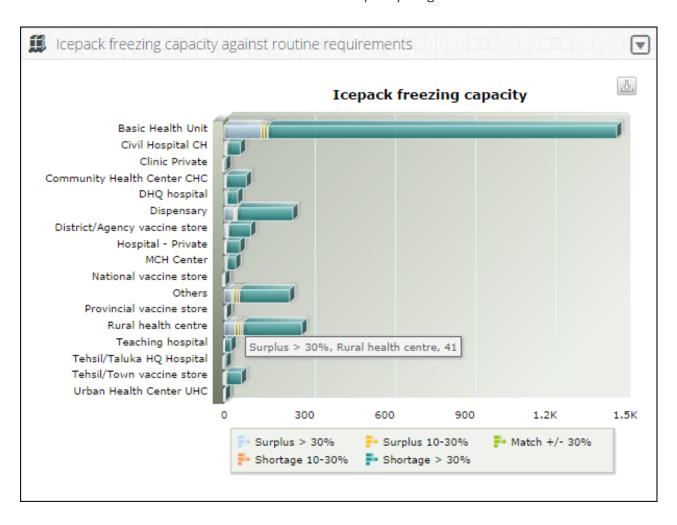
Vaccine Storage Capacity at +20c

Vaccine Storage Capacity at +20c will be displayed on the Provincial level in the form of a bar graph. The user can view the health facilities list on the vertical axis while the capacity range is shown on the horizontal axis.



Icepack freezing capacity against routine requirements

Cold chain equipment management dashboard will also display icepack freezing capacity graph against routine requirements on the Provincial level in the form of a bar graph. The user can view the health facilities list on the vertical axis while the capacity range is shown on the horizontal axis.



Campaign Management Tab

Campaign Management dashboard allows users to view the campaign reports and graphs by clicking on this tab. It will show:

• Campaign Data Entry Status

Shows the data entry stats for a selected campaign in the pie chart.

Day wise Target vs Coverage

Shows the day wise comparison of target versus coverage stats.

Missed Children Types

This is the comparison graph of defined different missed as well as unreachable list.

Campaign vaccines (vials)

To show the list of each campaign's vaccines (vials) which are used in any or all districts in the specified time span.

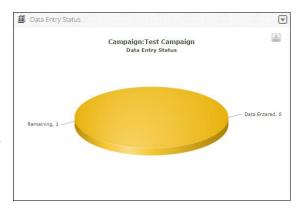
Users can select the following filter:

• Campaign: select the desired campaign from the dropdown list.

Click Go to view campaign management dashboard graphs.

Data Entry Status

Campaign management dashboard shows the data entry status for each district in a pie chart. Users can view the reported (Data Entered) and non-reported (Remaining) districts in the chart. Users can also export charts in JPEG, PNG, PDF and SVG format.



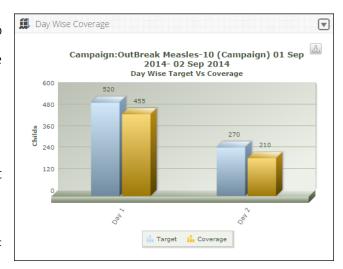
Campaign: Test Campaign

Day Wise Target vs Coverage

Campaign management dashboard also shows day wise target vs coverage for the selected campaign at the national level.

Click on **Target** or **Coverage** to view the target or coverage bar chart respectively.

Users can also export charts in JPEG, PNG, PDF and SVG format.

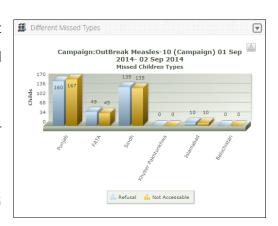


Missed Children Graph

Campaign management dashboard also shows different type of the missed or unreachable children in a graphical manner.

Click on **Refusal** or **Not Accessible** to view the refusal or not accessible children on the bar graph respectively.

Users can also export charts in JPEG, PNG, PDF and SVG format.



Campaign Vaccines

Campaign management dashboard also shows the list of each campaign's vaccines which are used in any or all districts in the specified time span.

Users can also export charts in JPEG, PNG, PDF and SVG format.

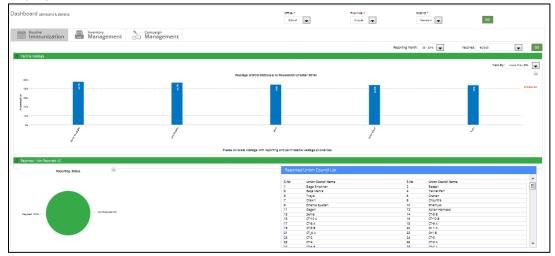


Select the District Level to view the desired Dashboard.

District Level Dashboards

When the user selects the district level, a dashboard screen will be displayed with three tabs.





User can select the Office, Province at the top of the dashboard screen. Province and District is selected by default at the district level dashboard. Select the Province and the district and click **GO**.



The following dashboard tabs are available by default.

- Routine Immunization
- Inventory Management
- Campaign Management

Routine Immunization Tab

Routine immunization management dashboard allows users to quickly view reports in a graphical manner by clicking on this tab.

Vaccine Wastage

To show the wastage rates of the selected vaccines at the UC level in the selected district.

Reporting Status

To show the reporting and non-reporting rates pie chart for union councils of the selected district and vaccine.

Month of Stock (MOS)

User can view Month of stock status for the selected district (UC wise).

Consumption

Users can view consumption status in term of doses for the selected regions in a district (UC wise).

Users can select the following filters:

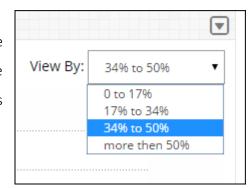


- Reporting Month: select the reporting month and year from the drop-down list.
- Vaccines: select the product from the drop-down list.

Click **Go** to view routine immunization graphs.

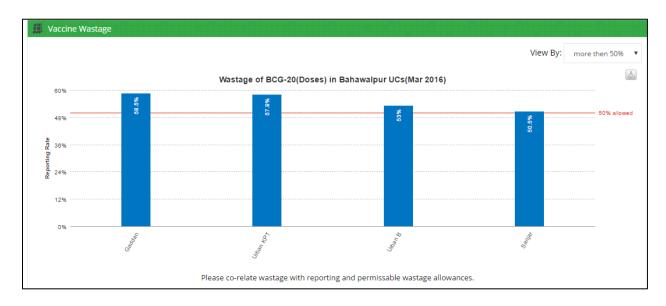
Vaccine Wastage

Routine immunization management dashboard shows the UC wise vaccine wastages of the selected vaccine for the district. Users can view the bar graph for the wastage rates in each UC.



Select the View By from the drop-down menu.

A bar graph for the selected percentage of stock for the selected vaccine in the UCs of the selected district will be displayed.



Users can also export graphs in JPEG, PNG, PDF and SVG format.

Reporting Status

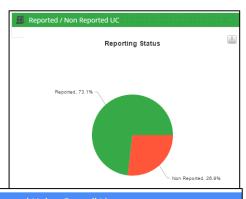
Routine immunization management dashboard also shows reporting status for each UC in the selected district in the form of a pie chart.

Click the reported or non-reported portion of the pie chart to view the district wise reporting rate.

Users can also export charts in JPEG, PNG, PDF and SVG

format.





Rep	orted Union Council L	ist	
S.No	Union Council Name	S.No	Union Council Name
1	163/M	2	188/M
3	192/M	4	1/DNB
5	17/DNB	6	22/DNB
7	36/DNB	8	37 B/C
9	12 B/C	10	4 B/C
11	Jhangiwali	12	Sanjar
13	47/DNB	14	98/DNB
15	Chananpeer	16	Derawar
17	Meerana	18	Chani Goth
19	Mahand Sharif	20	Raja Hoo
21	58/Fateh	22	79/F
23	89/F	24	H-38 Urban
25	H-39 Urban	26	Hasilpur Old 2nd
27	Palla	28	Ali Kharik

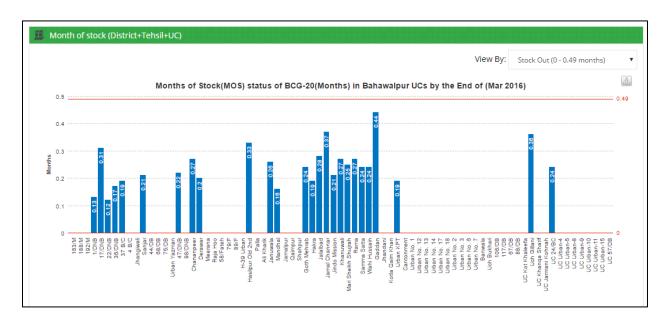
Month of Stock

Routine immunization management dashboard also shows the month of stock status for each UC in the selected district in the form of a bar graph.

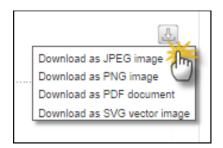
Select the View By from the drop-down menu.

A bar graph for the stock-out level of stock for the selected vaccine in the districts of the selected province.





Users can also export charts in JPEG, PNG, PDF and SVG format.

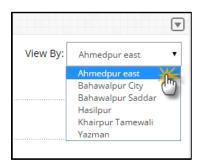


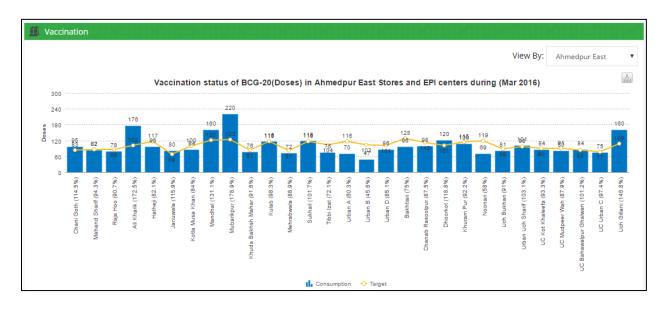
Consumption Graph

Routine immunization management dashboard also shows the consumption status of the selected vaccine for each district in the selected province in the form of a bar graph.

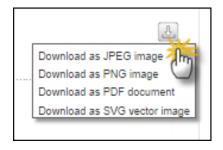
Select the View By from the drop-down menu.

A target vs. consumption graph will be displayed for the UCs in the selected region of the district





Users can also export charts in JPEG, PNG, PDF and SVG format.



Inventory Management Tab

Inventory management allows users to quickly review reports by clicking on this tab.

• Stock Status by Item

Shows the stock status by item for each UC in the selected district.

• Vaccine vial monitor (VVM) Stage Status

To show vaccine vial monitor (VVM) stage status at the District level.

Stock Status

To show product wise stock status at the district level e.g. Opening Balance, Receive, Issue and Closing Balance.

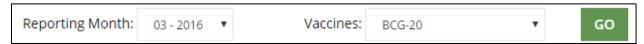
Month of Stock

The user can have a bird's eye view of Month of Stock (MOS) map.

• Stock Expiry Status

It shows the stock expiry status pie chart for the selected vaccine.

Users can select the following filters:



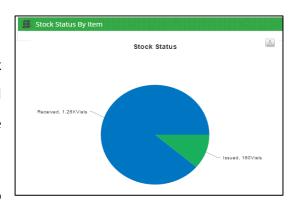
- Reporting Month: select the reporting month and year from the drop-down list.
- Vaccines: select the product from the drop-down list.

Click Go to view inventory management dashboard

Stock Status by Item

Inventory management dashboard shows the stock status by item for all the districts in the selected province / region. Users can view the pie graph for the stock status (in vials) in each district.

Click the received stock portion of the pie chart to view **Receive From** and **Issue To** list of stores. Users can also export charts in JPEG, PNG, PDF and SVG format.

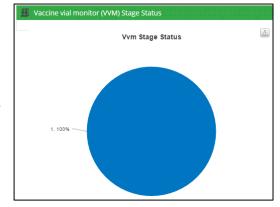




Vaccine vial monitor (VVM) Stage Status

Inventory Management dashboard also allows users to view vaccine vial monitor (VVM) stage status pie chart at the district level. The pie chart will be shown for the selected vaccine and the reporting month for one district.

Click on the pie chart to view **VVM Stage Status** list according to the batch. Users can also export charts in JPEG, PNG, PDF and SVG format.



Quantity
1,650

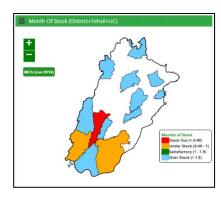
Stock Status

Inventory management dashboard shows the stock status (in doses) for all the vaccine products in the selected district. Users can view the report for the vaccines such as OB (Opening Balance), Receive, Issue Closing Balance.

Stock Status				
Product wise Stock Status (Vials)				
Vaccines	ОВ	Receive	Issue	СВ
bOPV	50,555	42,050	0	92,605
bOPV (IHR)	585	0	0	585
bOPV (PTP)	4,000	2,400	0	6,400
IPV	2,110	0	60	2,050
mOPV-1	0	0	0	0
tOPV	12,170	4,300	450	16,020

Month of Stock Map

Inventory management dashboard also shows month of stock map at the district level with the highlighted MOS for the selected district. Users can view the MOS map for the selected month and vaccine.



Campaign Management Tab

Campaign Management dashboard allows district level users to view the campaign reports and graphs by clicking on this tab. It will show:

- Campaign Data Entry Status pie chart
 Shows the data entry stats in the pie chart.
- Day wise Target vs Coverage bar graph
 The day wise comparison of target versus coverage stats.
- Missed Children Types bar graph
 This is the comparison graph of defined different missed as well as unreachable list.
- Campaign vaccines (vials) required in Districts report
 To show the list of each campaign's vaccines which are used in any or all districts in the specified time span.

Users can select the following filter:



• Campaign: select the desired campaign from the drop-down list.

Click **Go** to view campaign management dashboard graphs.

Data Entry Status

Campaign management dashboard shows the data entry status for each district in a pie chart. Users can view the reported (Data Entered) and non-reported (Remaining) districts in the chart. Users can also export charts in JPEG, PNG, PDF and SVG format.

Campaign:NIDs Measles-10 (Campaign) 10 Feb 2015- 13 Feb 2015 Data Entry Status By UC Remaining/Not required, 167 UC

Campaign:NIDs Measles-10 (Campaign) 10 Feb 2015- 15

Day Wise Target Vs Coverage

Day Wise Coverage

0.15

0.12

0.09

Day Wise Target vs Coverage

Campaign management dashboard also shows day wise target vs coverage for the selected campaign at the district level. Users can also export charts in JPEG, PNG, PDF and SVG format.

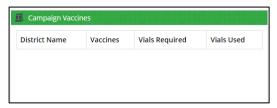
Missed Children Graph

Campaign management dashboard also shows different type of the missed or unreachable children in a graphical manner. Users can also export charts in JPEG, PNG, PDF and SVG format.

Different Missed Types Campaign:NIDs Measles-10 (Campaign) 10 Feb 2015- 15 Feb 2015 Missed Children Types 0.15 0.09 0.00

Campaign Vaccines

Campaign management dashboard also shows the list of each campaign's vaccines which are used in any or all UCs in the specified time span. Users can also export charts in JPEG, PNG, PDF and SVG format.



Inventory Management

Inventory Management feature enables users to manage the inventory for the respective store/facility. It is a component of supply chain management and supervises the flow of products from manufacturers to stores and from these facilities to the children and mothers. One of the key functions of inventory management is to keep a detailed record of each new or returned product as it enters or leaves a store or distributed to mother / children. Inventory Management feature enables the Store user to manage the inventory within store.

☐ Inventory Management~
Requisition Approval
Add Shipments
Shipments - Search
Stock Receive (Supplier)
Stock Receive from Store
Stock Receive - Search
Batch Management
Stock Issue/Dispatch
Stock Issue - Search
Add Adjustment
Adjustment - Search
Purpose Transfer
VVM Management

User can perform the following:

- Add Requisition: Provincial user can send stock demand to the National level user.
- Requisition Search: Provincial user can search requisitions.
- Requisition Approval: National user can approve requisitions.
- Stock Receive from Supplier: National and Provincial users can receive stock from supplier.
- Stock Receive from Store: Users can receive stock from other stores.
- Receive Search: users can search the received stock from other stores or suppliers.
- Stock Issue: The stock is issued to other stores on demand.
- Stock Issue Search: users can search the issued stock to other stores.
- Batch Management: When stock is received, user can manage and view vaccines batches priorities based on expiry and VVM stage and for dry store products can view priority based on expiry date.
- Add Adjustment: If stock is lost or recovered, user can add adjustments in vLMIS.
- Search Adjustment: User can search the added adjustments for a selected duration.

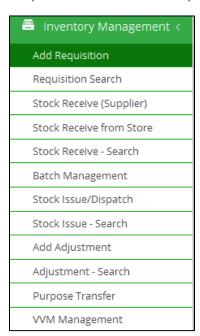
- Purpose Transfer: User can transfer received stock against routine purpose to campaign and vice versa for optimal utilization of the stock and to avoid stock wastages due to expiry or VVM stage.
- VVM Management: User can update VVM stage of vaccines after physical inspection of stock.

Add Requisition

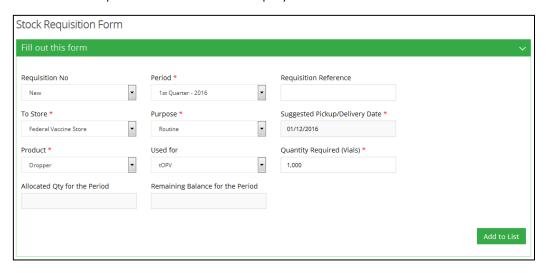
Applies to Provincial level users.

The EPI user (Provincial level) can send stock demand to the National level user. To add requisition:

- Sign in to the user account.
 The User Home Page displays.
- 2. Under Inventory Management, click Add Requisition.
 The Stock Requisition Form screen displays.



3. The Stock Requisition Form screen displays.



4. Specify the following information:

- Requisition No: is an automatically generated number for identifying the requisition.
- **Period:** specify the period.
- Requisition Reference: specify the reference number.
- **To Store**: specify store for demand.
- Purpose: specify the purpose of stock receive. If the selected purpose is campaign, specify the campaign for which stock is required.
- Suggested Pickup/Delivery Date: Click on Suggested Pickup/Delivery Date to expand the date picker tool.



- Product: select the product from the list.
- **Used for:** select the product for which this product is used.
- Quantity Required (Vials): specify the quantity of the product.
- Allocated Qty for the Period: This auto generated field displays allocated quantity for selected period.
- Remaining Balance for the Period: This auto generated field displays remaining balance for the selected period.

Click Add to list for detail.

The following screen will appears.



User can cancel and save the requisition. User can add further requisitions according to the procedure described above. These requisitions will be added to the same list.

Click Save to permanently save the requisition.

Requisition Search

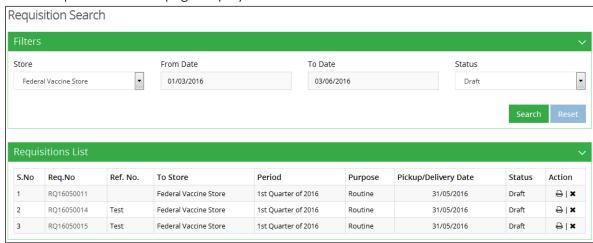
Applies to Provincial level users.

To search for a requisition entry:

Sign in to the user account.
 The User Homepage displays.

2. Under Inventory Management, click Requisition Search.

The Requisition Search page displays.



Specify the following filters:

• **Store:** Specify the requisition store.

• From Date, To Date: Click on date to expand the date picker tool.



- Status: select the status of the requisition. Three possible values are:
 - ⇒Draft
 - ⇒Submitted
 - ⇒Approved
 - **⇒**Un Approved

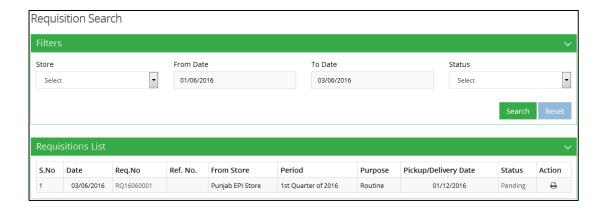
Click **Search** to view the results.

Requisition Approval

Applies to National level users.

The EPI user (National level) can approve stock requisition received from Provincial level user. To approve requisition:

- Sign in to the user account.
 The User Home Page displays.
- 2. Under Inventory Management, click Requisition Approval.
- 3. The Stock Requisition Search screen displays.



- 4. Specify filters according to the procedure described above in **Requisition Search**.
- 5. In the results click on the desired requisition number having a status of pending.
- 6. Following Screen appears:

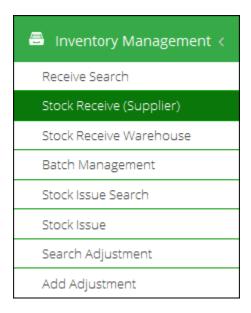


- 7. Click on **Approve** to approve the requisition.
- 8. Click **UnApprove** to un approve the requisition.

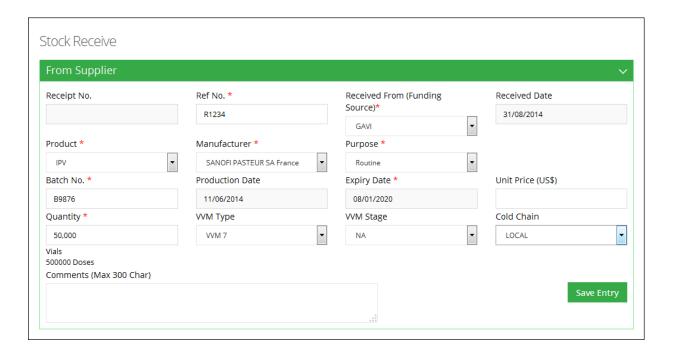
Stock Receive (Supplier)

The EPI user (National and Provincial) can receive stock from suppliers and then distribute the stock to the Provincial, District and Tehsil stores on demand. To receive stock from supplier:

- Sign in to the user account.The User Home Page displays.
- 10. Under Inventory Management, click Stock Receive (Supplier).
 The Stock Receive from Supplier screen displays.



11. The Stock Receive from Supplier screen displays.



12. Specify the following information:

 Receipt No: is an automatically generated number for identifying the receive transaction.

- **Ref No.**: specify the reference number.
- Received Date: Click on Receive date to expand the date picker tool.



- Received From (Funding Source): Select the supplier for the product.
- **Product**: select the product from the list.
- Manufacturer: select the manufacturer from the list.
- Purpose: specify the purpose of stock receive. If the selected purpose is campaign, specify the campaign for which stock is required.
- Batch No: specify the batch number for the product.
- Production Date: Click on Production date to expand the date picker tool, or typein the required date using format dd/mm/yyyy.
- **Expiry Date:** Click on Expiry date to expand the date picker tool, or type-in the required date using format dd/mm/yyyy.
- Unit Price: specify the price in US\$.
- Quantity: specify the quantity of the product.
- VVM Type: specify the VVM (Vaccine Vial Monitor) Type.

• **VVM Stage:** specify the VVM stage.

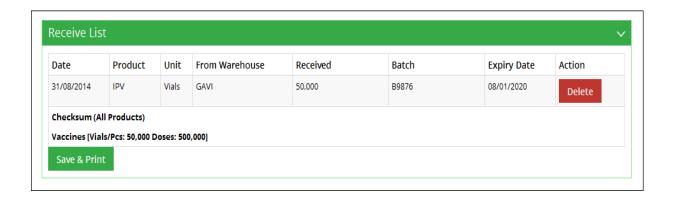


A vaccine vial monitor (VVM) is a label containing a heat-sensitive material which is placed on a vaccine vial to register cumulative heat exposure over time. The combined effects of time and temperature cause the inner square of the VVM to darken, gradually and irreversibly. A direct relationship exists between the rate of color change and temperature:

The lower the temperature, the slower the color change, the higher the temperature, the faster the color change.

- Cold Chain: select the cold-chain.
- 13. Click **Save Entry** for details.

The entry moves to the Issue List. You can add new entries, as required. All of the entries will be displayed in the Issue List.



14. Click Save & Print.

The Receive order is saved and printed.

Stock Receive From Store

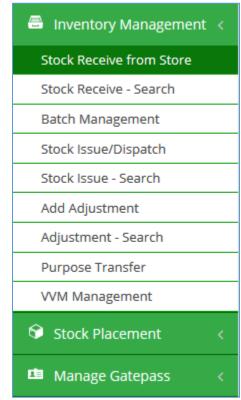
Applies to all user levels.

User can receive stock from other stores of upper/lower geographical levels e.g. Provincial / Tehsil level stores / facilities. If required, the user can return stock to the upper geographical level.

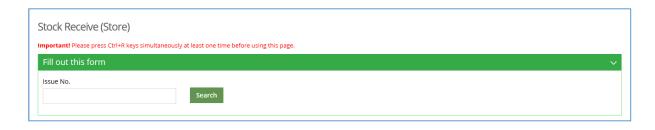
To receive stock from Store:

- Sign in to the user account.
 The User Home Page displays.
- 2. Under Inventory Management, click Stock Receive from Store.

The Stock Receive from Store screen displays.

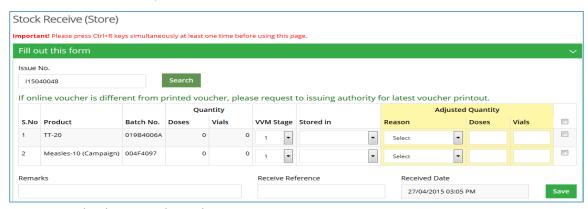


3. Add Issue Number to search for the required entry in database.



The required issued entry displays.

Review the issued product's details. The table includes:



- S. No: displays serial number
- Product: displays the product name.
- **Batch No:** displays the batch number for the product.
- Quantity: displays the issued quantity in either doses or vials/pcs.
- VVM Stage: displays the VVM stage.



A vaccine vial monitor (VVM) is a label containing a heat-sensitive material which is placed on a vaccine vial to register cumulative heat exposure over time. The combined effects of time and temperature cause the inner square of the VVM to darken, gradually and irreversibly. A direct relationship exists between the rate of color change and temperature:

The lower the temperature, the slower the color change, the higher the temperature, the faster the color change.

- Stored in: displays the code store location for vaccines and dry store bin/location for dry store products.
- Adjusted Quantity: if the received quantity is different than the issued quantity, you can enter the adjusted quantity in this text box either in doses or vials and select adjustment reason/type.
- Remarks: enables users to write remarks while receiving stock from store if any.

- **Receive Reference**: specify the receive reference.
- **Receive Date:** Click on Receive date to expand the date picker tool and specify the received date.
- 4. Check the blank boxes and click save in the end of the row.

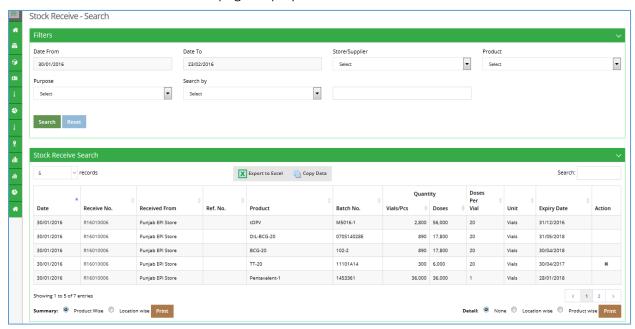
The entry is received and added to the inventory.

Stock Receive Search

Applies to all user levels.

To search for a receive entry:

- 3. Sign in to the user account.
 - The User Homepage displays.
- 4. Under Inventory Management, click Stock Receive Search.
 - The Stock Receive Search page displays.



Specify the following filters:

Date From, Date To: Click on date to expand the date picker tool.

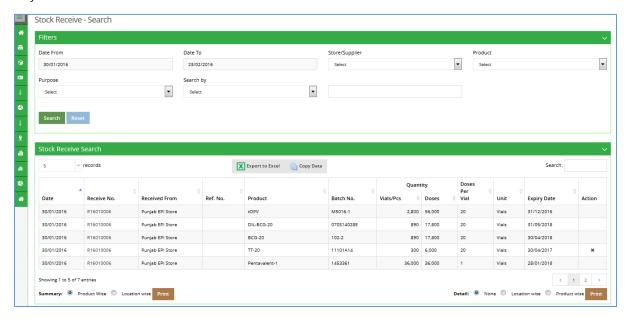


- Store/Supplier: select the store/supplier. This is optional field.
- **Product:** select the required product from the list.

- Purpose: from drop down menu, select the purpose for which product is received.
- Search By: Specify the unique identifier you want to search by.

The options include:

Receive No: if you know the receive number, select this option and specify the Issue No in the adjacent text box.



- Receive Ref.: To search using the Receive Ref, select this option and then specify the Issue Ref in the adjacent text box.
- Batch No: To search using the Batch No., select this option and then specify the Batch No in the adjacent text box.

Click **Search**. The required entries are displayed in the Receive List, as shown below.

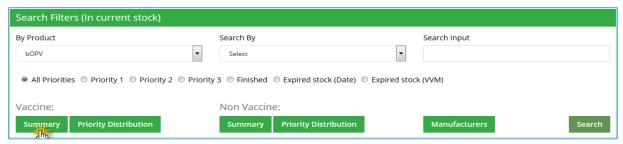
Batch Management

Applies to all user levels.

Once the vaccines stock is received in store, each package is identified by its Batch Number and Expiry Date. Each batch is sorted by its expiry date by the rule of "First Expiry First Out". When batches are added to vLMIS, user usually assigns 'Running' status to the batches with latest expiry date so that they can be issued first.

To Manage Batches:

- Sign in to the user account.
 The User Home Page displays.
- 2. Under Inventory Management, click Batch Management.
 The Batch Management page displays. You can print the list of available stock by clicking Summary buttons.
- 3. Batch Management Filters
 - By Product: select the required product from the list.
 - Search By: This filter include following options.
 - o **Batch Number:** Specify batch number if you need to search specific batch.
 - Expired on or before: Specify expiry date by clicking in the box to search stock batches being expired up to specified date.



- Expired on or after: Specify expiry date by clicking in the box to search stock batches being expired on or after specified date.
- All Priorities: Select if need to search all priorities batches (i.e. Priority 1, Priority 2 and Priority 3)
- Priority 1: Select if need to search Priority 1 batches.
 - Vaccines: If VVM stage is 2 or expiry is less than 3 months.
 - Dry Store: If expiry is less than 3 months.

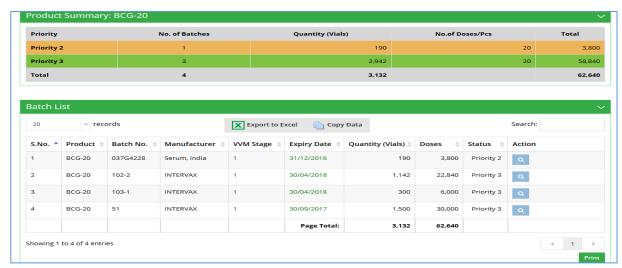
- Priority 2: Select if need to search Priority 2 batches.
 - Vaccines: If VVM stage is 1 and expiry is more than 3 months and less than 12 months.
 - Dry Store: If expiry is more than 3 months and less than 12 months.



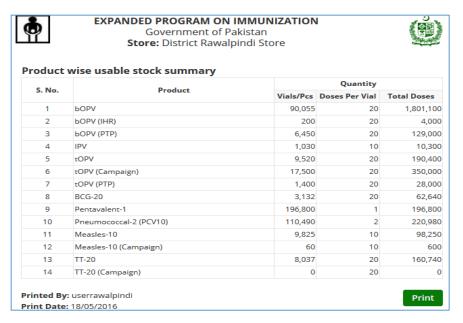
- Priority 3: Select if need to search Priority 3 batches.
 - Vaccines: If VVM stage is 1 and expiry is more the 12 months.
 - Dry Store: If expiry is more the 12 months.
- **Finished:** Select if need to search finished batches (quantity is zero) of the selected product.
- **Expired by date:** Select if need to search expired stock.
- Expired by VVM: Select if need to search expired stock due to VVM stage, this
 option is only enabled for vaccines.

Remember that in order to issue batches, you must try to issue batches according to the priorities.

Batch Management Search Result's: User can click **Search** button to view Batch management searched results.

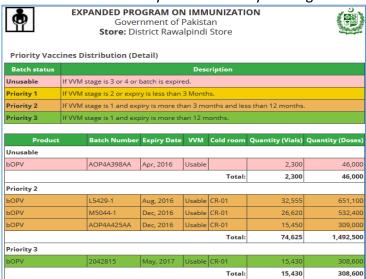


User can view stock summary and priority distribution for the vaccines and non – vaccines items



For Vaccines:

Summary: User can view stock summary for vaccines by clicking "Summary" button



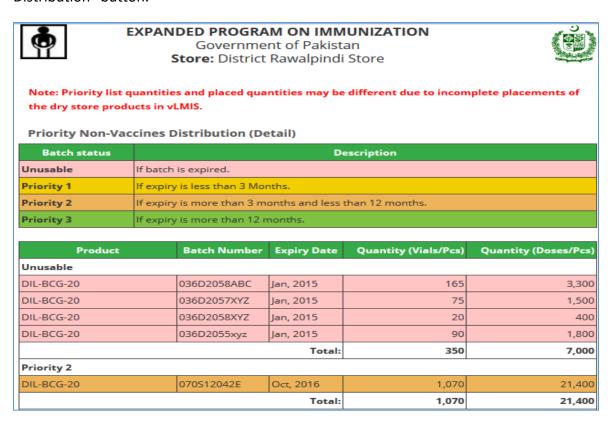
Priority Distribution: User can view vaccines priority distribution list clicking "Priority Distribution" button.

For Non Vaccines:

Summary: User can view non vaccine stock summary by clicking "Summary" button.



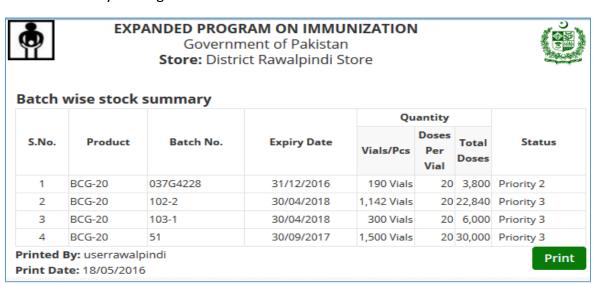
Priority Distribution: User can view non vaccine stock distribution list by clicking "Priority Distribution" button.



Export to Excel: User can export batch management search results by clicking "Export to Excel" button.

Copy Data: User can copy batch management search results data and paste in any other word or excel document by clicking "Copy Data" button.

Batch wise Stock Summary: User can view and print stock summary for vaccines and non-vaccine items by clicking "Print" button.

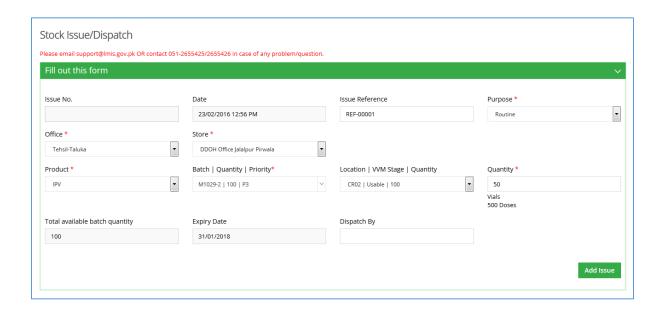


Stock Issue/Dispatch

Users can issue stock to other stores. Stock can be issued directly to the stores / facilities on Tehsil level.

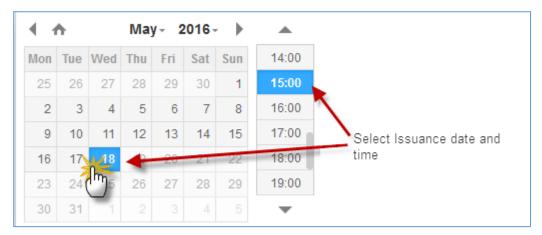
To issue stock:

- Sign in to the user account.
 The User Home Page displays.
- 2. Under Inventory Management, click Stock Issue/Dispatch.
 The New Issue page displays.

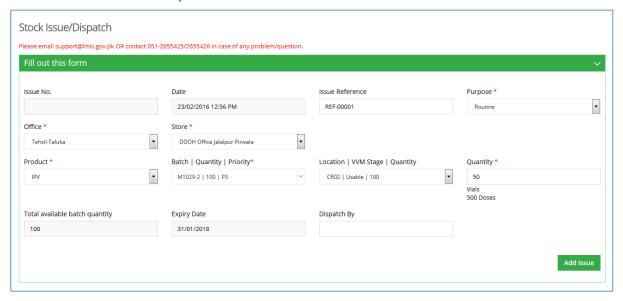


- 3. In order to issue a vaccine batch, specify the following information:
 - Issue No: It is an automatically generated number for identifying the Issue transaction. It starts from 'I' (i.e. Issuance) with leading 8 digits serial number (e.g. I16020001). In the number I 16 02 0001, I is (Issuance) 16 (last two digit of year) 02 (two digits for month) 0001(No of voucher for the selected month, and this number starts from 0001 for every month).

 Date: Click on Issue date to expand the date picker tool and select issuance date.



- Issue Reference: Specify issue reference.
- Purpose: Specify stock issuance purpose i.e. (Routine, Campaign, IHR and PTP etc.). In case of a campaign, the name of the campaign should also be specified.
- Office (Issue To)
 In this drop-down, select the office to which you want to issue the product. On selecting the Office, the Province drop-down is displayed. On selecting the Province, the District drop-down is displayed. On selecting the District, the Issue To drop-down displays the relevant store names in the selected province and selected district. Select the required store.
- Product: Select the product from the list.



- Batch | Quantity | Priority: Select batch which is displayed along with batch number, batch quantity and batch priority.
- Location | VVM Stage | Quantity: Select batch placement location which is displayed along with location (cold room/IRL) or Bin (Dry store), VVM stage and Quantity.

A vaccine vial monitor (VVM) is a label containing a heat-sensitive material which is placed on a vaccine vial to register cumulative heat exposure over time. The combined effects of time and temperature cause the inner square of the VVM to darken, gradually and irreversibly. A direct relationship exists between the rate of color change and temperature:

The lower the temperature, the slower the color change, the higher the temperature, the faster the color change.

- Quantity: specify the Issued quantity in vails/pcs.
- Total available batch quantity: Displays batch total available quantity which may be placed at one place or placed in multiple locations.
- **Expiry Date:** Displays selected batch expiry date.
- Dispatch By: Specify the name of the person who has issued the quantity, this is optional field.
- 4. Click **Add Issue** to add the issue entry to the Issue list, as shown below.



- 5. Specify **comments** if any.
- 6. Specify **Issued period**.
- 7. Click Save.

The Issue entry is saved.

8. Click **Print** to print the Issue Voucher.

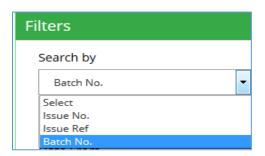
Stock Issue/Dispatch Voucher Dispatch Voucher # 116020001 Date of Dispatch: 23/02/2016									
Purpose: F	Coutine	Ref. Number: REF-0	Ref. Number: REF-00001 Recipient: DDOH Office Jala			-			
S.No.	Item	Batch Number	Manufacturer	Expiry Date		Quantity			
					Vials/Pcs	Doses Per Vials	Total Doses		
1	IPV	L7059-1	SANOFI France	31/01/17	20	10	200	1	
Summary									
S.No. Item	1		Quantity Vials/Pes						
1 IPV			20		Doses/Pcs 200				
Issuance for the period of: From 01/01/2016 To 01/03/2016 Notes: Issuing for QTR -1 2016.									
Issued by:					Received by:				
Name:					Name:				
Designation:					Designation:				
Date:					Date:				
IN-CHARGE STORE Prepared By:									

Stock Issue Search

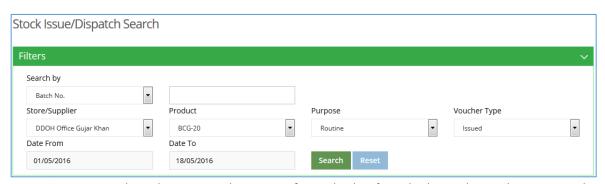
Applies to all user levels.

To search for an issue entry:

- Sign in to the User account.
 The User Home Page displays.
- 2. Under Inventory Management, click Stock Issue-Search.
 The Stock Issue Search page displays.
- 3. Specify the following filters:
 - Search By: Specify the unique identifier you want to search by. The options include:
 - Issue No: if you know the issue number, select this option and specify the Issue No in the adjacent text box.



- o **Issue Ref.**: To search using the Issue Ref, select this option and then specify the Issue Ref in the adjacent text box.
- Batch No.: To search using the Batch No., select this option and then specify the Batch No in the adjacent text box.
- Store/Supplier: select the store/supplier. This is optional field.
- **Product:** select the required product from the list.



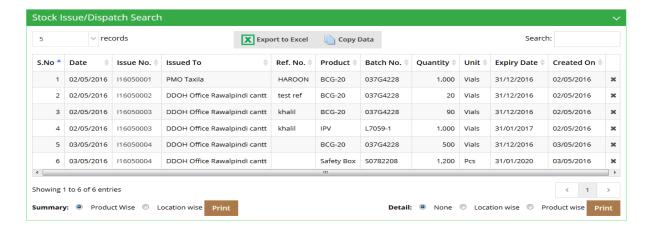
Purpose: select the required purpose from the list for which product is being issued.

• Date From, Date To: Click on date to expand the date picker tool.



Click Search.

The required entries are displayed in the Issue List.



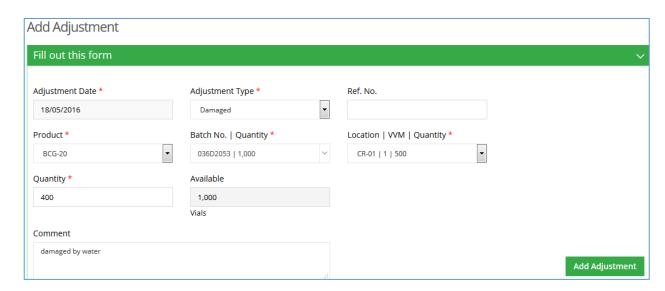
4. Click **Print** to print the displayed list.

Add Adjustment

Applies to all user levels.

To add new Adjustments:

- Sign in to the user account.
 The User Home Page displays.
- **2.** Under **Inventory Management**, click **Add Adjustment**. The Add Adjustment page displays.
- 3. Specify the following filters:
 - Adjustment Date: Click on date to expand the date picker tool.
 - Adjustment Type: Select adjustment type from the list (damaged, expired, cold chain break, physically found etc.).
 - **Ref. No.:** Enter the Ref. No. of the adjustment.
 - **Product:** Select the required product from the list.
 - Batch No. | Quantity: Select the batch number for the selected product, which displays along with its existing quantity.
 - Location | VVM Stage | Quantity: Select add adjustment placement location which is displayed along with location (cold room/IRL) or Bin (Dry store), VVM stage and Quantity.
 - Quantity: specify the quantity to be adjusted.



- Available: It is read only field and appears on batch selection and shows the available quantity of the selected batch.
- Comment: Add comments, if any.
- 4. Click Save to save adjustment.

Adjustment has been saved successfully! Your adjustment number is A16050006

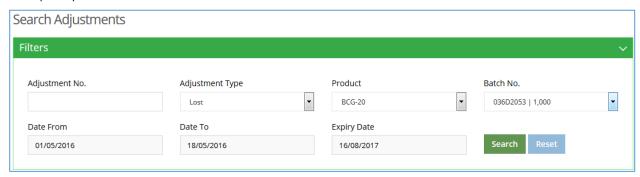
Search Adjustment

Applies to all user levels.

Every now and then user have to update the number of items in stock manually. This could be due to lost or damaged items, or received less inventory than expected. Hence users can add stock adjustments for managing the inventory.

To search for Adjustments:

- Sign in to the user account.
 The User Home Page displays.
- Under Inventory Management, click Adjustment-Search.
 The Search Adjustments page displays.
- 3. Specify the search criteria:



- Adjustment No.: If you know automatically generated unique identifier for the adjustment then specify it.
- Adjustment Type: specify the adjustment type.
- **Product:** select the required vaccine from the list.
- Batch No: Select the batch number for the selected product, which displays along with its existing quantity.

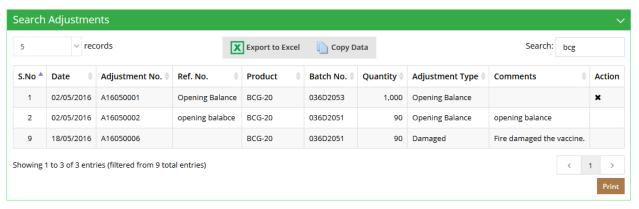
- Expiry Date: Select the batch expiry date.
- Date From, Date To: Click on date to expand the date picker tool.

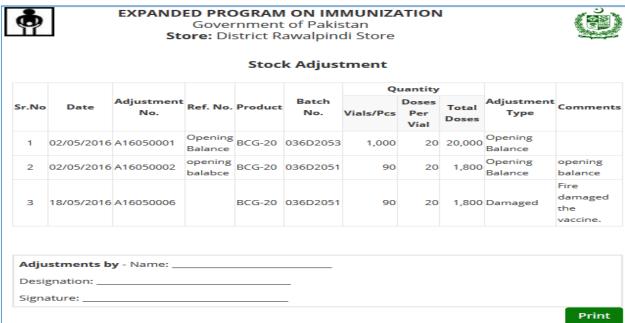


4. Click Search.

The Search result displays.

Click **Print** button to print searched results.





Purpose Transfer

Applies to all user levels.

To transfer stock from one purpose to another purpose before issuance:

Sign in to the user account.
 The User Home Page displays.

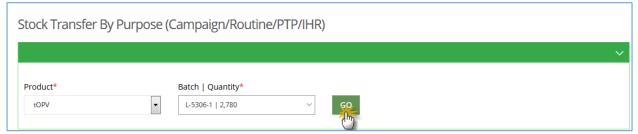
Under Inventory Management, click Purpose Transfer.

The Purpose Transfer page displays.



Specify the following filters:

Product: Select the required product from the list, this list will show all those products



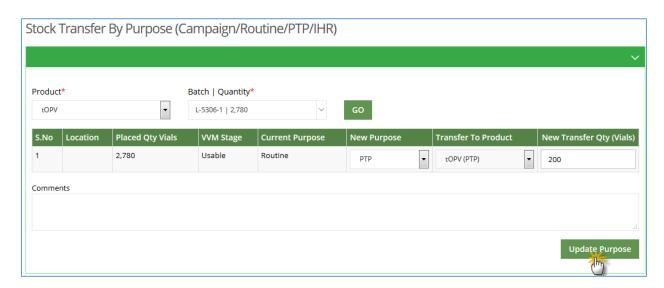
which can be used / issued against different purpose. It will not show those products which can be used only for one purpose for example BCG-20.

Batch | Quantity: Select batch of the selected product which displays along quantity.

- Click GO button to list selected product and batch placed quantities details.
 New Purpose: Specify new purpose.
- Transfer to Product: Specify purpose transfer product.

• New Transfer Qty.: Specify quantity to be transferred to new purpose.

Click **Update Purpose** to add stock in new selected purpose.





VVM Management

Applies to all user levels.

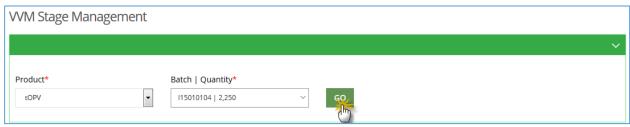
To update vaccines stock VVM stage after conducting physical inspection of the stock.

1. Sign in to the user account.

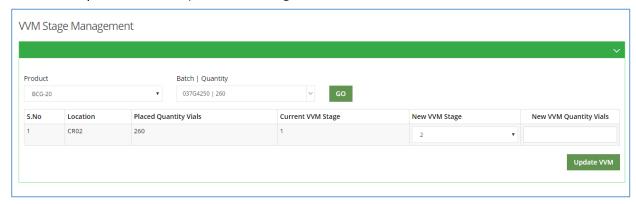
The User Home Page displays. Under Inventory Management, click VVM Management.

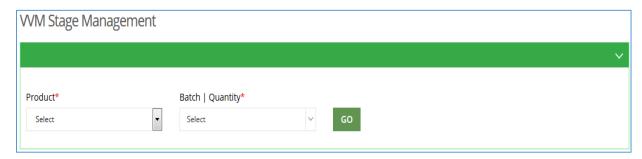
The VVM Management page displays.

- 2. Specify the following filters:
 - **Product:** Select the required product from the list.
 - Batch | Quantity: Select batch of the selected product which displays along quantity.



- Click GO button to list selected product and batch placed quantities details.
- New VVM Stage Specify new VVM stage.
- New VVM Stage Quantity: Specify new VVM stage quantity.
- 3. Click **Update VVM** to update VVM stage





Stock Placement

Applies to all user levels.

EPI Users at the all level can also manage dry store locations and can view locations status i.e. placed stock in the cold store locations or dry store locations. Inventory Management feature enables the Store User to manage the inventory within store.



Stock Placement feature enables the User to manage the stock within the store. The Store User can perform the following:

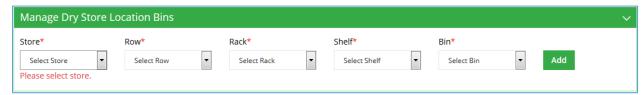
- Manage Location: User can manage the location of stock within the store.
- Location Status: User can check the stock available at a particular location in the store and transfer it to another location.

Manage Location

Applies to all user levels.

Users can manage placement locations for the stock within the store by adding location Store, Row, Rack, Shelf and Bin.

To manage locations for the stock within the store, select the following filters:

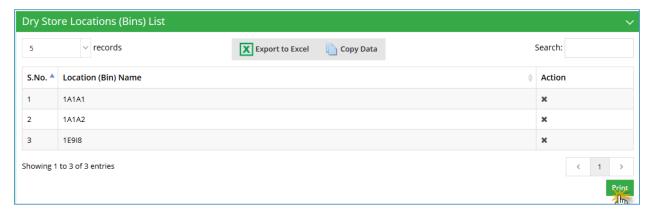


- Store: Select the store number from the list.
- Row: Select the row number for the location.

- Rack: Select the rack number from the list.
- Shelf: Select the rack type from the list.
- **Bin:** Select the bin for the location.



Click Add to add dry store location.



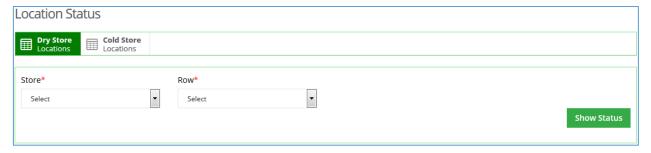
Click **Print** to print dry store locations.

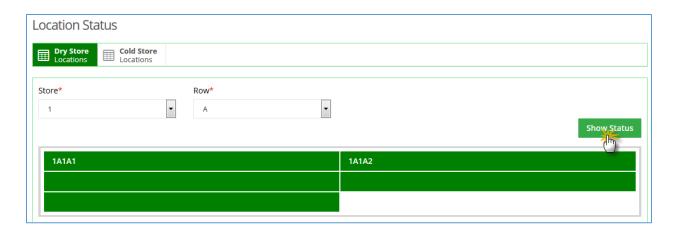
Location Status

EPI Users can select **Location Status** to view different placement locations of cold and dry store and to view placed stock in the selected locations.

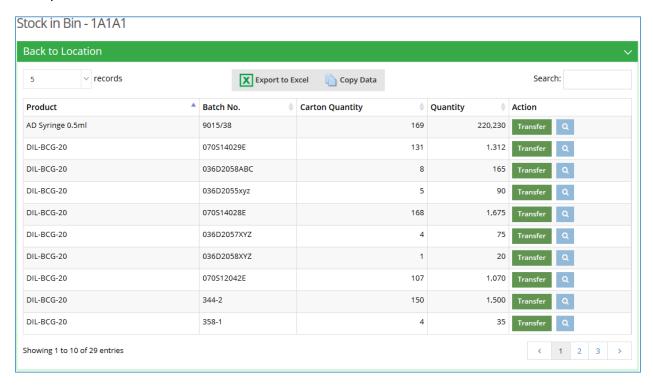
For **Dry Store** locations, select;

- **Store**: Select the store number from the list.
- Row: Select the row number for the location.

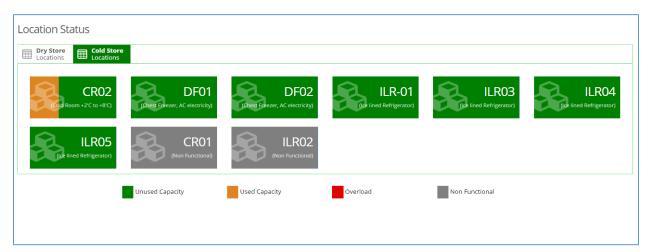




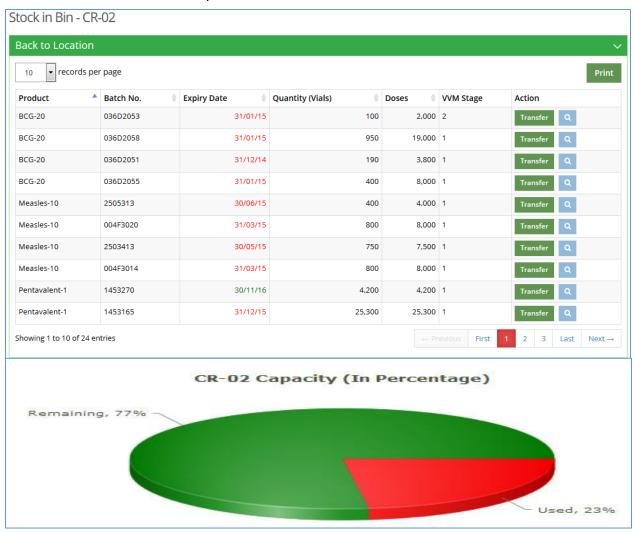
View **Placed Stock in Dry Store**: Click any of the above bins shown with labels like **1A1A1** to view placed stock.



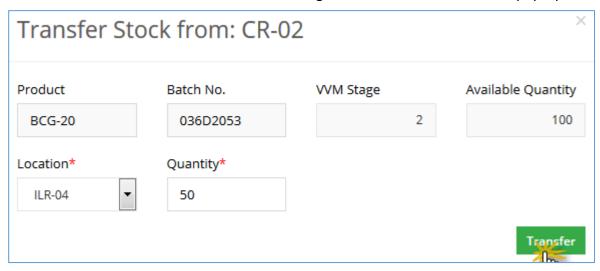
Cold Store Locations: Click cold store location tab to view cold store locations.



View **Placed Stock in Cold Store**: Click any of the above cold store locations shown with labels like **CR02 or ILR05 etc.** to view placed stock in cold store.



Transfer the stock available at a location using **Transfer.** A new window will pop-up.



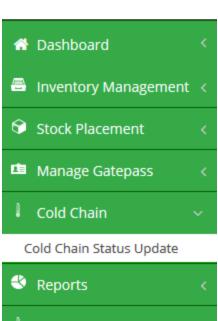
- Select the location to transfer stock.
- Add quantity of boxes. (The quantity of boxes to transfer should be less than or equal to the available number of boxes.)
- Click Transfer.

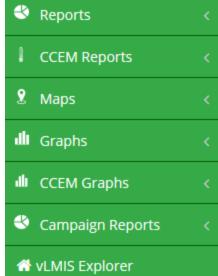
Cold Chain

Applies to all user levels.

A vaccine's cold chain is a temperature-controlled supply chain. It is essential for the effectiveness of the vaccines that an unbroken cold chain with uninterrupted series of storage and distribution activities are maintained for the given temperature range. In vLMIS, the Store managers will now also provide the Cold-chain assets information containing its capacity and working status for each month in order to record the cold-chain maintenance data.

Click **Cold Chain** from the main menu and select **Cold Chain Status Update** from the drop down menu.





Cold Chain Status Update

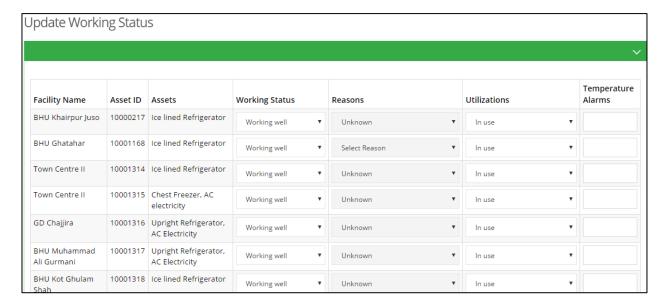
Applies to all user levels.

EPI account users at the District level are provided with an option to report the cold chain asset's status of the assigned stores, which helps identify the working condition of the cold-chain machine.

To update Cold Chain Status:

- 1. Sign in to the user account.
 - User Homepage displays.
- 2. Click CCEM and then select Cold Chain Status Update.

The Cold Chain Status Update page displays. All the available Cold Chains for District EPI user will be displayed.



- 3. Following fields will be available in the list:
- Working Status: select the status of the cold chain asset from the list.

- **Reasons:** select the reasons from the drop down menu.
- **Utilization:** select the utilization of the asset
- **Temperature Alarms:** enter the quantities of temperature alarms
- Click "Update"

Reports

This section explains the step-by-step instructions on the reports' features that can be used by the Vaccine Logistics Management Information system's users.

Overview

The Vaccine Logistics Management Information System enables you to login as an authenticated user to view many reports. These users can view analytical reports and stores data for any period using selection filters. These reports can be very useful for policy level managers for their ease in decision making.

Clicking on **Reports** menu displays the list of Data Reports available in vLMIS including:

- 1. Summary Reports
- 2. Yearly Reports
- 3. Data Performance
- 4. Inventory Reports
- 5. Consumption Reports
- 6. Coverage Reports

A brief description of different types of reports is as follows:

- Summary Reports: Summary reports provide the summary of stock status and available stock at Provincial, District, Tehsil and UC level along with stock availability.
- Yearly Reports: Provide the annual summary of consumption status and available stock of Provincial and District levels.
- Data Performance: This report provides the reporting performance summary of stores at a selected level.

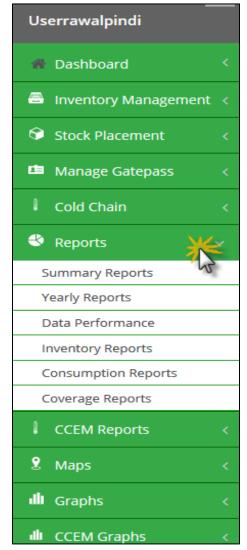


Figure 1: Reports Menu

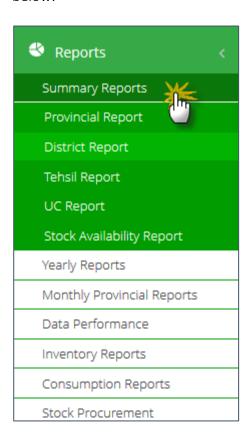
- Inventory Reports: Summary reports provide the summary of stock status and available stock at National and Provincial level.
- Consumption Reports: Provide the annual summary of consumption status and available stock of Provincial and District levels.
- Coverage Reports: This report provides the reporting performance summary of stores at a selected level.

Summary Reports

These reports show following indicators in a Province, District, Tehsil and Union Councils.

- Consumption: displays the consumption data of vaccines for the last reported month.
 The data for each vaccine is the sum of all reporting levels.
- Average Monthly Consumption is calculated as average of aggregated consumption of the last three non-zero consumption months.
- On Hand: the amount of product on hand in order to monitor stock positions and anticipate stock outs in advance.
- MOS: Month of Stocks is the estimate of number of months the stock will last. This
 calculation is based on average monthly consumption.

Click the **Summary Reports** tab to expand the Summary reports as shown in the image below:

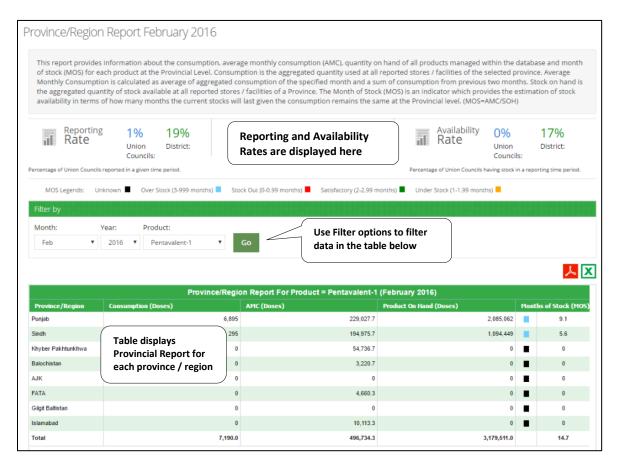


You can expand and collapse the Summary Reports tab, as required.

Provincial Report

The **Provincial Report** displays each province/region's summary about the consumption, average monthly consumption (AMC), quantity on hand of all products managed within the database and month of stock (MOS) for each product at the Provincial Level.

Click **Provincial Report** in the menu to open the Provincial Report:

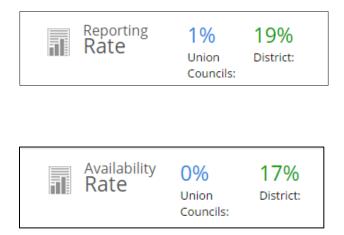


The Provincial Report can be examined further through the drill down approach of selecting and zoning in the desired data.

The Provincial Report consists of the following screen elements:

Header bar

The Header bar displays the **Reporting Rate** of vaccines on the left side and the **Availability Rate** of vaccines on the right side of District and UC.



MOS Legends

MOS legends display the MOS Stock values:



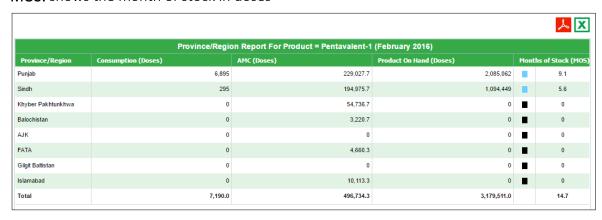
Filters

You can use Month, Year, and Product filters to filter values in the table.



Report Table

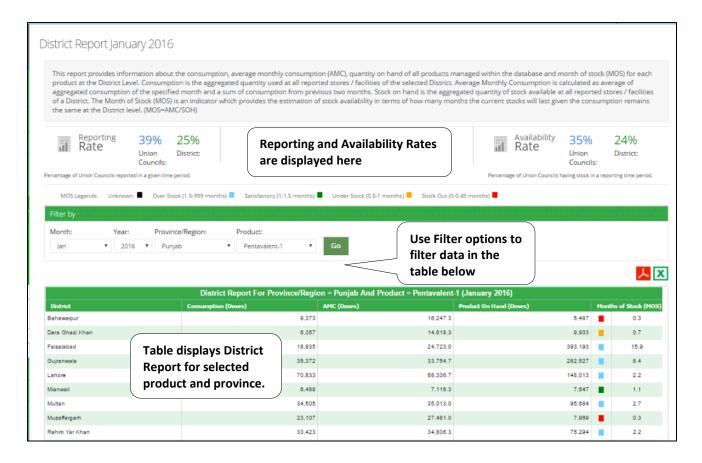
- Province: displays the list of provinces.
- Consumption: shows the consumption status of the vaccines in doses.
- Average Monthly Consumption: shows the Average monthly consumption of vaccines in doses.
- Stock On Hand: shows the stock on hand in doses.
- MOS: shows the month of stock in doses



District Report

The **District Report** provides information about the consumption, average monthly consumption (AMC), quantity on hand of all products managed within the database and month of stock (MOS) for each product at the District Level.

Click **District Report** under Summary Reports tab to open the District Report. The District Report can also be viewed by reviewing the Provincial Reports and then by selecting district of interest after clicking particular province:

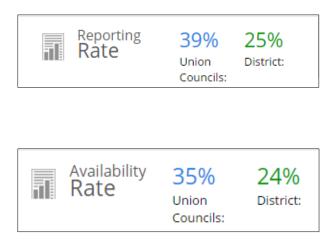


The District Report can be filtered by Province and Product to view the report for Districts in the selected Province.

The District Report consists of the following screen elements:

Header bar

The Header bar displays the **Reporting Rate** of vaccines on the left side and the **Availability Rate** of vaccines on the right side of Districts and UCs.



MOS Legends

MOS legends display the MOS Stock values:



Filters

You can use Month, Year, Province/Region and Product filters to filter values in the table.



Report Table

- **Districts**: displays the list of districts.
- Consumption: shows the consumption status of the vaccines in doses.
- Average Monthly Consumption: shows the Average monthly consumption of vaccines in doses.
- Stock On Hand: shows the stock on hand in doses.

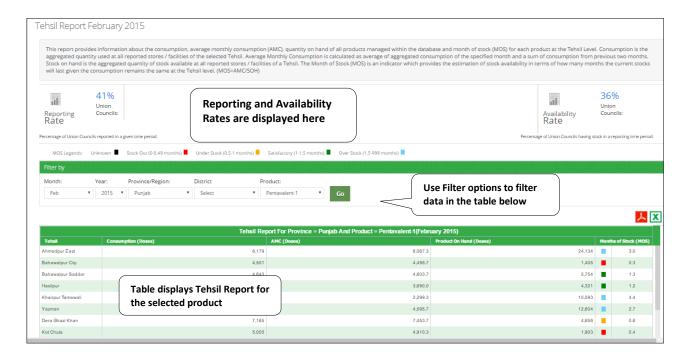
MOS: shows the month of stock in doses

District	Consumption (Doses)	AMC (Doses)		Product On Hand (Doses)	Mon	ths of Stock (MOS
Bahawalpur	9,	373	16,247.3	5,487		0.3
Dera Ghazi Khan	6,	357	14,618.3	9,803		0.7
Faisalabad	18,	935	24,723.0	393,193		15.9
Gujranwala	35,	372	33,754.7	282,527		8.4
Lahore	70,	833	68,336.7	148,013		2.2
Mianwali	6,	488	7,116.3	7,647		1.1
Multan	34,	505	35,013.0	95,684		2.7
Muzaffargarh	23,	107	27,481.0	7,969		0.3
Rahim Yar Khan	33,	423	34,806.3	75,294		2.2
Rajanpur	7,	798	11,145.3	7,519		0.7
Rawalpindi	35,	906	35,585.3	259,248		7.3
Sahiwal	17,	540	18,170.7	165,217	٠	9.1
Sargodha	27,	350	27,923.0	58,725		2.1
Total	326,98	37.0	354,921.0	1,516,326.0		52.9

Tehsil Report

The **Tehsil Report** report provides information about the consumption, average monthly consumption (AMC), quantity on hand of all products managed within the database and month of stock (MOS) for each product at the Tehsil Level.

Click **Tehsil Report** under Summary Reports tab to open the Tehsil Report. The Tehsil Report can also be viewed by reviewing the Provincial Reports and then selecting a particular Tehsil of interest:

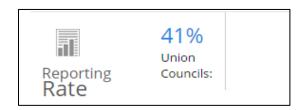


The Tehsil Report can be filtered by Province and Product to view the report for Tehsil in each province.

The Tehsil Report consists of the following screen elements:

Header bar

The Header bar displays the **Reporting Rate** of vaccines on the left side and the **Availability Rate** of vaccines on the right side of District and UC stores.





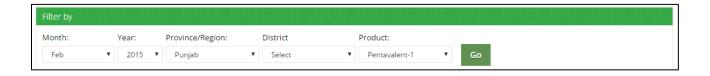
MOS Legends

MOS legends display the MOS Stock values:



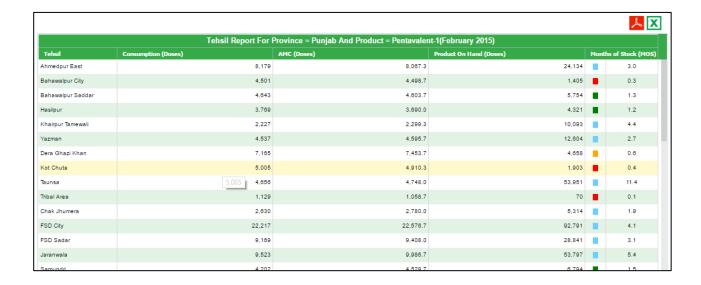
Filters

You can use **Month**, **Year**, **Province/Region**, **District** and **Product** filters to filter values in the table.



Report Table

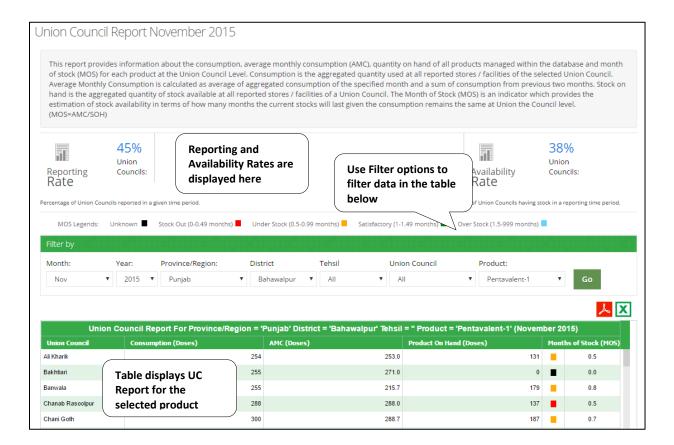
- **Tehsil**: displays the list of tehsils.
- Consumption: shows the consumption of vaccines in doses
- Average Monthly Consumption: shows the average monthly consumption of vaccines in doses
- Stock On Hand: shows the stock on hand in doses
- MOS: shows the months of stock in doses



UC Report

The **UC Report** This report provides information about the consumption, average monthly consumption (AMC), quantity on hand of all products managed within the database and month of stock (MOS) for each product at the Union Council Level.

Click UC Report under Summary Reports tab to open the UC Report:



The UC Report consists of the following screen elements:

Header bar

The Header bar displays the **Reporting Rate** of vaccines on the left side and the **Availability Rate** of vaccines on the right side of UC stores.





MOS Legends

MOS legends display the MOS Stock values:



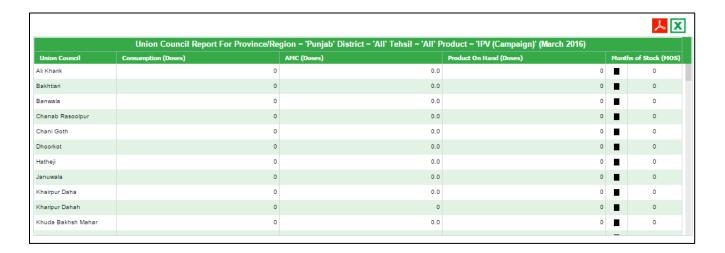
Filters

You can use Month, Year, Province/Region, District, Tehsil, Union Council and Product filters to filter values in the table.



Report Table

- Union Council: displays the list of union councils.
- Consumption: shows the consumption of vaccines in doses.
- Average Monthly Consumption: shows the average monthly consumption in doses.
- Stock On Hand: shows the stock on hand in doses
- MOS: shows the Months of stock in doses



Stock Availability Report

This report shows the in-country available stock based on the filters applied at all levels of supply chain. Stocks are translated in Months of Stock and calculated from Average Monthly Consumption.

Click Stock Availability Report under Summary Report to open the Stock Availability Report.



In this report only those Districts stores appears who has reported for the period applied to view the report.

The Stock Availability Report consists of the following screen elements:

Filters

You can use Month, Year, Province/Region and Product filters to filter values in the table.



Central Store Report Table

The Central Store Report Table displays the summary of Consumption, Average monthly consumption and MOS for the Central store based on the selected filters in the Filter Table.



- Stakeholder: displays the stakeholder (EPI Program).
- Average Monthly Consumption: average of aggregated consumption of the last three non-zero consumption months.
- **Total:** the total amount of consumed product.
- MOS: Month of Stocks is the estimate of number of months the stock will last. This
 calculation is based on average monthly consumption.

Provincial Store Report Table

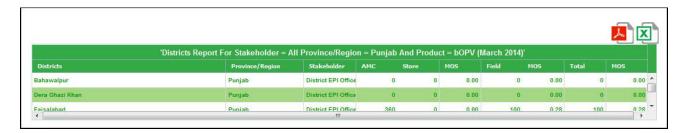
The Provincial Store Report Table displays the summary of Consumption, Average monthly consumption and MOS for the Provincial Store based on the selected Province in the Filter Table.



- Stakeholder: displays the stakeholder (EPI Program).
- Average Monthly Consumption: average of aggregated consumption of the last three non-zero consumption months.
- **Total:** the total amount of consumed product in the province.
- MOS: Month of Stocks is the estimate of number of months the stock will last. This
 calculation is based on average monthly consumption.

District Store Report Table

The District Store Report Table displays the summary of Consumption summary of store and field for each district in the selected Province.



- District: displays the districts if the selected Province.
- Province: displays the Province.
- Stakeholder: displays the stakeholder (EPI Program).
- AMC: average of aggregated consumption of the last three non-zero consumption months for the district store.
- **Store**: the consumption of the district store.
- MOS: Months of Stock is the estimate of number of months the stock will last in district store. This calculation is based on average monthly consumption.
- Field: the consumption of vaccines in field.
- MOS: Months of Stock is the estimate of number of months the stock will last in field.
 This calculation is based on average monthly consumption.
- **Total:** the total amount of consumed product in the district for district store and field.
- MOS: Months of Stock is the estimate of number of months the stock will last. This
 calculation is based on average monthly consumption.

Yearly Reports

Click the Yearly Reports tab to expand the Yearly Reports as shown in the image below:



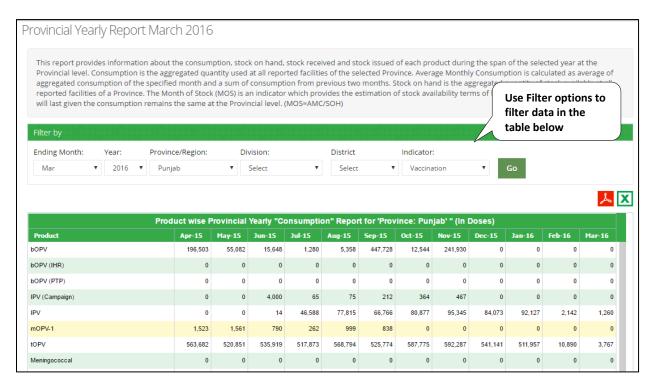
You can expand and collapse the Yearly Reports tab, as required.

Provincial Yearly Report

This report provides information about the consumption, stock on hand, stock received and stock issued of each product during the span of the selected year at the Provincial level.

There are three main indicators that can be viewed i.e. Vaccination, Stock on Hand, received and issued /Dispatch. User can filter report on the basis of month and Province/Region.

Click **Provincial Report** under Yearly Report to open the Provincial Report.



Filters

You can use **Month**, **Year**, **Province/Region**, **Division**, **District** and **Indicator** filters to filter values in the table:



Report Table

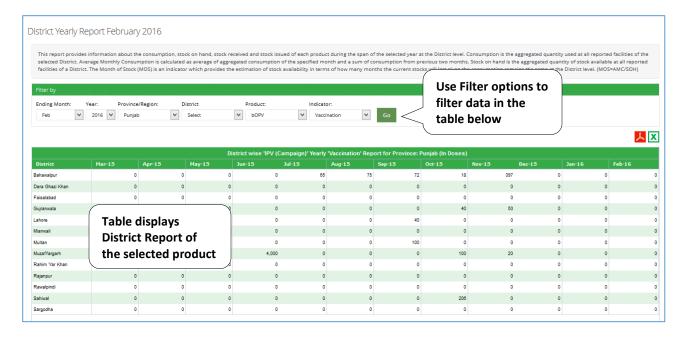
Product wise Provincial Yearly "Consumption" Report for 'Province: Punjab' " (In Doses)												
Product	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
bOPV	196,503	55,082	15,648	1,280	5,358	447,728	12,544	241,930	0	0	0	0
bOPV (IHR)	0	0	0	0	0	0	0	0	0	0	0	0
bOPV (PTP)	0	0	0	0	0	0	0	0	0	0	0	0
IPV (Campaign)	0	0	4,000	65	75	212	364	467	0	0	0	0
IPV	0	0	14	46,588	77,815	66,766	80,877	95,345	84,073	92,127	2,142	1,260
mOPV-1	1,523	1,561	790	262	999	838	0	0	0	0	0	0
tOPV	563,682	520,851	535,919	517,873	568,794	525,774	587,775	592,287	541,141	511,957	10,890	3,767
Meningococcal	0	0	0	0	0	0	0	0	0	0	0	0
tOPV (Campaign)	0	0	0	0	0	0	0	0	0	0	0	0
tOPV (IHR)	4,857	5,798	5,672	4,382	2,097	74,161	0	0	0	0	0	0
tOPV (PTP)	0	0	0	0	0	0	0	0	0	0	0	0
BCG-20	184,441	163,064	160,844	160,852	183,206	172,556	186,011	189,396	164,179	152,228	3,671	2,162
DIL-BCG-20	0	0	1	0	0	0	0	0	0	0	536	704
Pentavalent-1	438,295	404,777	381,619	361,086	375,064	310,936	399,827	384,575	353,201	326,987	6,895	3,465
Pneumococcal-2 (PCV10)	436,020	406,930	380,579	357,496	372,806	335,746	393,108	385,824	355,332	328,285	6,400	3,373
Measles-10	284,812	273,796	257,824	242,770	262,265	233,574	264,787	264,922	226,950	206,142	4,068	2,770
DIL-Measles-10	0	0	9	0	0	0	0	0	0	0	776	982
Measles-10 (Campaign)	0	0	0	0	0	0	0	0	0	0	0	0
DIL-Measles-10 (Campaign)	0	0	0	0	0	0	0	0	0	0	0	0
TT-1	1,603	1,652	85	15	5,559	9,123	7,485	3,356	1,650	3,395	0	0
TT-10	2,432	1,805	798	679	2,182	1,562	2,060	1,344	1,699	995	0	0

District Yearly Report

This report provides District's Yearly Summary of consumption. The consumption summary is displayed month-wise based on the indicator and the selected year. The indicators include Vaccination, Consumption (Vaccination + Wastage), SOH (Districts + Talukas+ UCs), SOH (District Store), SOH (District +Taluka Store), SOH (Taluka Store + UCs), SOH (UCs), Received, Issue/ Dispatch and Wastages.

User can filter report on the basis of Year, Province/Region and Product.

Click **District Report** under Yearly Report to open the District Report.

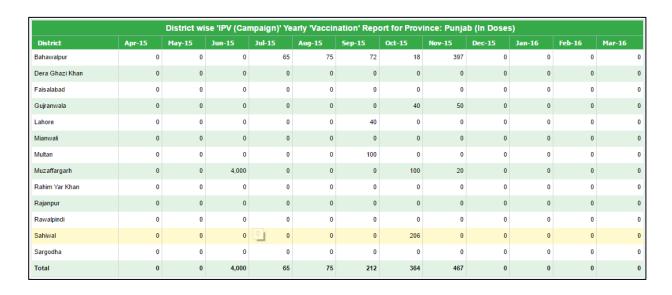


Filters

You can use **Month**, **Year**, **Province/Region**, **Product** and **Indicator** filters to filter values in the table:



Report Table

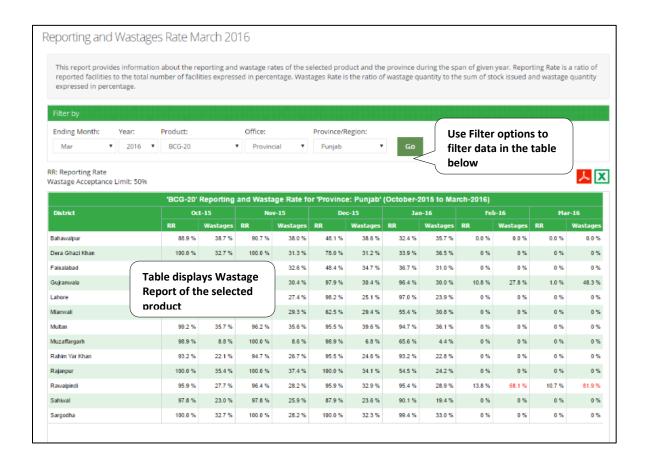


Reporting and Wastages Rate

This report provides information about the reporting and wastage rates of the selected product and the province during the span of given year. Reporting Rate is a ratio of reported facilities to the total number of facilities expressed in percentage. Wastages Rate is the ratio of wastage quantity to the sum of stock issued and wastage quantity expressed in percentage.

There is a filter to view wastages of products province wise individually or all provinces collectively. System provides an option to export report to PDF and Excel format.

Application provides product-wise wastage report for each district. User will be able to filter wastage of any product at any location level i.e. district, tehsil store or health facility. Screen below shows the wastage report. The entries colored red are those which exceed the acceptance limit percentage.



Filters

You can use **Ending Month**, **Year**, **Province/Region** and **Product** filters to filter values in the table:

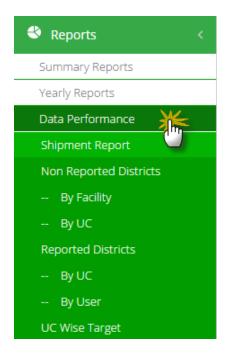


Report Table

District	Oc	Oct-15		Nov-15		Dec-15		Jan-16		Feb-16		Mar-16	
	RR	Wastages	RR	Wastages	RR	Wastages	RR	Wastages	RR	Wastages	RR	Wastages	
Bahawalpur	88.9 %	38.7 %	90.7 %	38.0 %	48.1 %	38.6 %	32.4 %	35.7 %	0.0 %	0.0 %	0.0 %	0.0 %	
Dera Ghazi Khan	100.0 %	32.7 %	100.0 %	31.3 %	78.0 %	31.2 %	33.9 %	36.5 %	0 %	0 %	0 %	0 %	
Faisalabad	72.0 %	35.0 %	55.4 %	32.6 %	48.4 %	34.7 %	36.7 %	31.0 %	0 %	0 %	0 %	0 %	
Gujranwala	99.5 %	27.6 %	97.4 %	30.4 %	97.9 %	30.4 %	96.4 %	30.0 %	10.8 %	27.8 %	1.0 %	48.3 %	
Lahore	98.8 %	28.0 %	97.6 %	27.4 %	98.2 %	25.1 %	97.0 %	23.9 %	0 %	0 %	0 %	0 %	
Mianwali	62.5 %	28.0 %	62.5 %	29.3 %	62.5 %	29.4 %	55.4 %	30.8 %	0 %	0 %	0 %	0 %	
Multan	99.2 %	35.7 %	96.2 %	35.6 %	95.5 %	39.6 %	94.7 %	36.1 %	0 %	0 %	0 %	0 %	
Muzaffargarh	98.9 %	8.8 %	100.0 %	8.6 %	98.9 %	6.8 %	65.6 %	4.4 %	0 %	0 %	0 %	0 %	
Rahim Yar Khan	93.2 %	22.1 %	94.7 %	26.7 %	95.5 %	24.6 %	93.2 %	22.8 %	0 %	0 %	0 %	0 %	
Rajanpur	100.0 %	35.4 %	100.0 %	37.4 %	100.0 %	34.1 %	54.5 %	24.2 %	0 %	0 %	0 %	0 %	
Rawalpindi	95.9 %	27.7 %	96.4 %	28.2 %	95.9 %	32.9 %	95.4 %	28.9 %	13.8 %	68.1 %	10.7 %	81.9 %	
Sahiwal	97.8 %	23.0 %	97.8 %	25.9 %	87.9 %	23.6 %	90.1 %	19.4 %	0 %	0 %	0 %	0 %	
Sargodha	100.0 %	32.7 %	100.0 %	28.2 %	100.0 %	32.3 %	99.4 %	33.0 %	0 %	0 %	0 %	0 %	

Data Performance

Click **Data Performance** tab to expand the Non Reported Districts Report as shown in the image below:



You can expand and collapse the Data Performance tab, as required.

Shipment Report

This report provides information about stock issued and received by the stores at four different levels i.e. National, Provincial, District and Tehsil during the span of selected six months.

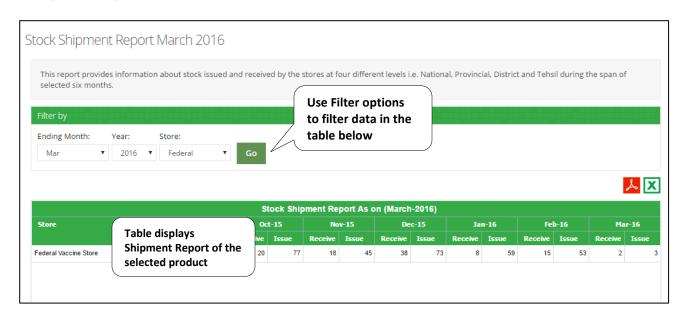
This report provides a yearly summary of store shipment report. It provides a report of all issued and received stock province and national. It gives the status of issued stock i.e. received or pending and a detail of each voucher.

Report provides a detailed view of all transactions showing the stores to which the stock is issued, or from where it is received. Detail view shows a status transactions to provide the user with latest updated on issued/received transaction.

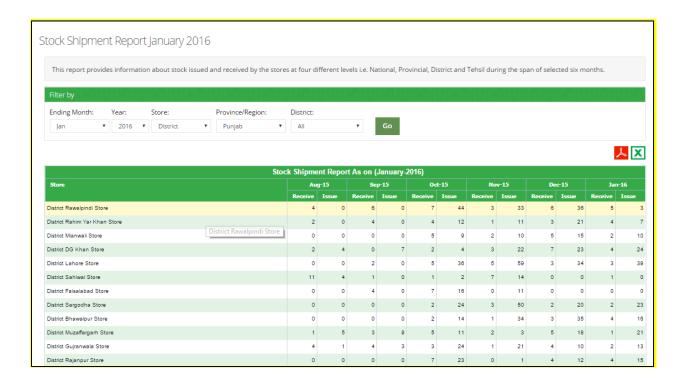
It also provides information of each transaction voucher containing the detail of products that were issued/received in a particular transaction.

This report provides a dynamic filter of year which will show last six months of the selected ending year. It also shows filters to view stock transactions based on store types i.e. central, provincial, district and tehsil.

Click **Shipment Report** under Yearly Report to open the desired Report.



Below screenshot shows the report grid with transaction count in a particular month for every store.



Transaction Details

On clicking the number of received stock in the month of February, the report shows a detail of transactions containing the store where the stock transaction was done.

Voucher Details

Transaction Voucher will be shown when a user clicks the transaction number this voucher can be used for reference.

Non Reported Districts

This report provides information about the non-reported facilities within the selected District for a specified month.. User can select Month, Year, Province/Region and District. This report is a good monitoring tool for Mangers at Provincial and Federal level to view the information about non-reported districts. This report shows:

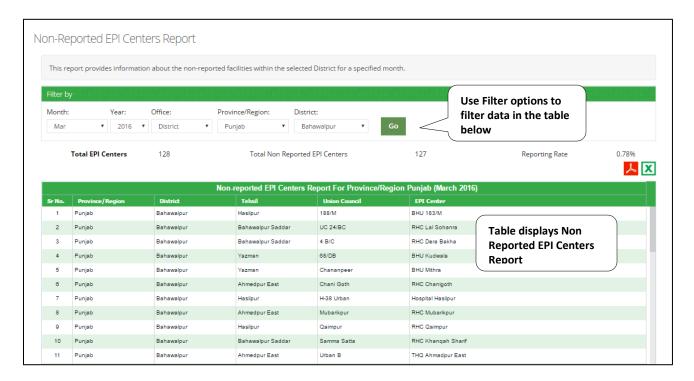
- 1. Total Stores
- 2. Total Non-Reported Stores
- 3. Reporting Rate

The report can be further refined by selecting the following filters:

- 1. By Facility
- 2. By UC

By Facility

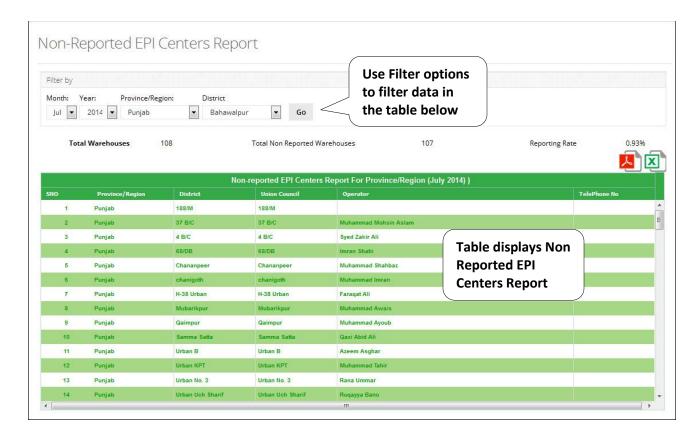
This report shows a detail of total and non-reported facilities within a province. It also shows an aggregate of the percentage reported facilities at the end. A line graph is provided that shows consumption of a district over the last six months. A detail of non-reported facilities is also provided, which shows both reported and non-reported facilities.



By Union Council

This report shows a detail of total and non-reported UCs within a province. It also shows an aggregate of the percentage reported UCs at the end. A line graph is provided that shows

consumption of a district over the last six months. A detail of non-reported UCs is also provided, which shows both reported and non-reported.



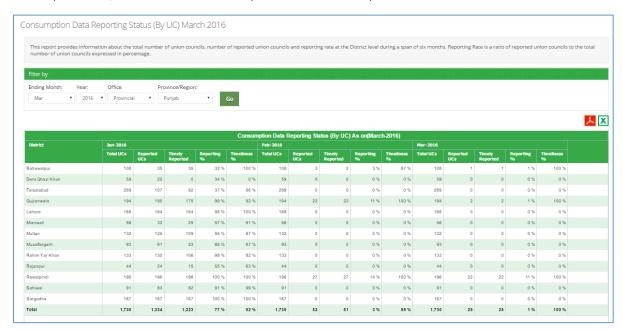
Reported Districts

This report shows the reporting rate of different stores in a particular month. User can select Month, Year and Province/Region. This report is a good monitoring tool for Mangers at Provincial and Federal level to view the information about non-reported districts. The report can be further refined by selecting the following filters:

- 1. By UC
- 2. By User
- 3. By Facility

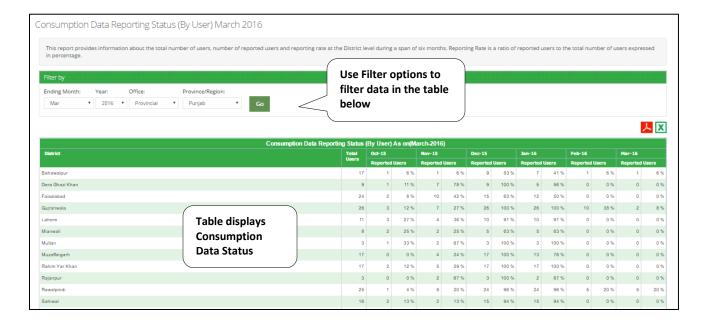
By Union Council

This report provides information about the total number of union councils, number of reported union councils and reporting rate at the District level during a span of six months. Reporting Rate is a ratio of reported union councils to the total number of union councils expressed in percentage. It also shows an aggregate of the percentage reported UCs at the end. A line graph is provided that shows consumption of a district over the last six months. A detail of reported UCs is also provided, which shows both reported and non-reported.



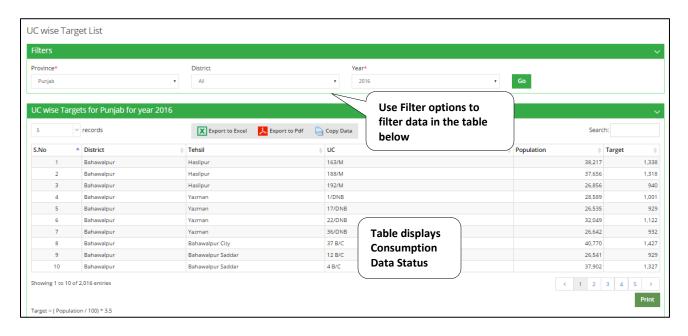
By User

This report shows a detail of total and reported UC Users within a province. It also shows an aggregate of the percentage reported users at the end. A line graph is provided that shows consumption of a district over the last six months. A detail of reported users is also provided, which shows assigned UCs to that users and also user details both reported and non-reported.



UC wise Target List

This report shows list of population and targets for a particular district of the province for a selected year.



Inventory Reports

Batch Shelf Life Report

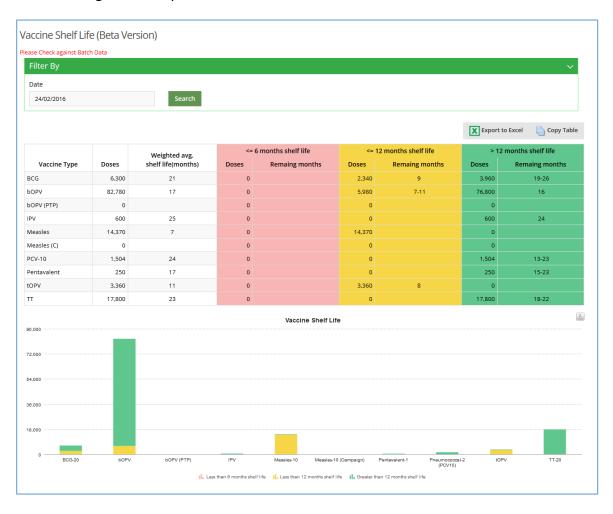
This reports displays batches shelf life for different time periods i.e. 6 months, 12 months above 12 months.

Batch Shelf Life Report: Filters

Following are the batch shelf life report filters.

Date: Select date by clicking date tool picker.

Click **Search** to generate report.



Inventory Status Report

This reports helps the store keeper to know about the vouchers that have been received, no received (pending) and issued to down level stores.

Inventory Status Report: Filters

Following are the Inventory Status report filters.

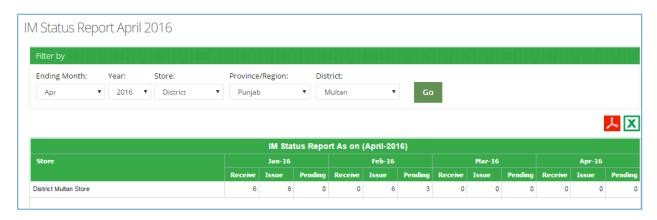
Ending Month: displays list of months.

Year: Displays list of years.

• Store: Displays list of stores.

Province/Region: displays list of province/regions list.

Click **GO** button to generate report.



Stock Ledger Report

User can view any product complete list of transactions (Opening balance, receive, issue and adjustments) by using Stock Ledger report.

Stock Ledger Report: Filters

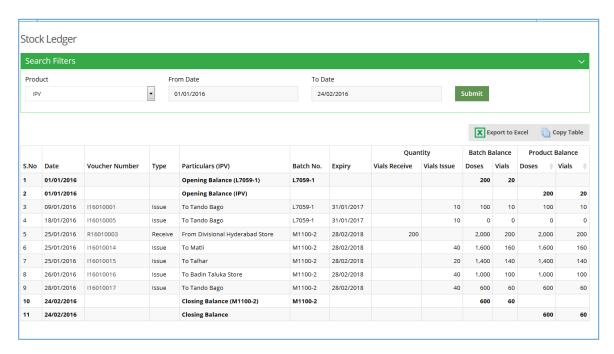
Following are the list of filters of Stock Ledger report.

Product: displays list of products.

From Date: Select starting date for stock ledger report.

■ **To Date:** Select ending date for stock ledger report.

Click **Submit** button to generate report.



Consumptions Reports

Vaccines Coverage Report

Vaccine coverage report determines the annualized coverage of the vaccines.

Vaccines Coverage Report: Filters

Following are the vaccines coverage report filters.

- Select Year, Province/Region, District filters.
- Year: displays list of year.
- Province/Region: displays list of province/regions.
- District: displays list of districts of selected province or region.

Click GO button to generate report.



Provincial Vaccine Coverage Report

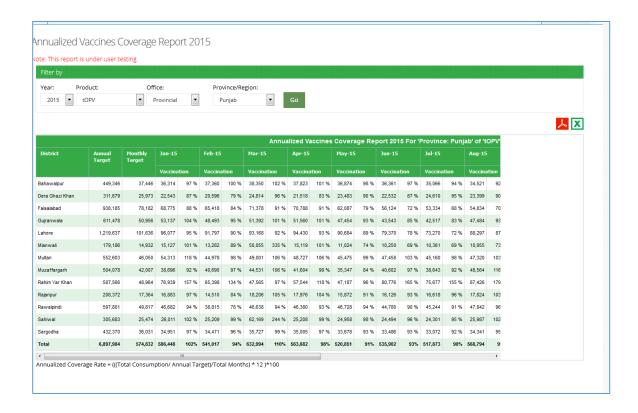
This report determines the provincially vaccine coverage status.

Provincial Vaccine Coverage Report: Filters

Following are the filters of **Provincial Vaccine Coverage** report.

- Year: displays list of years.
- Product: displays list of vaccines.
- Office: displays list of levels.
- Province/Region: displays list of province/regions list.

Click GO to generate report.



Vaccine Stock Status and Wastage Report

This report determines the vaccine stock status and wastages details against selected filters.

Vaccine Stock Status and Wastage Report: Filters

Following are the filters of Vaccine Stock Status and Wastage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.
- Province/Region: displays list of province and region.
- District: displays list of districts of selected province or region.

Click **GO** button to generate report.



Vaccine Dropout Rate Report

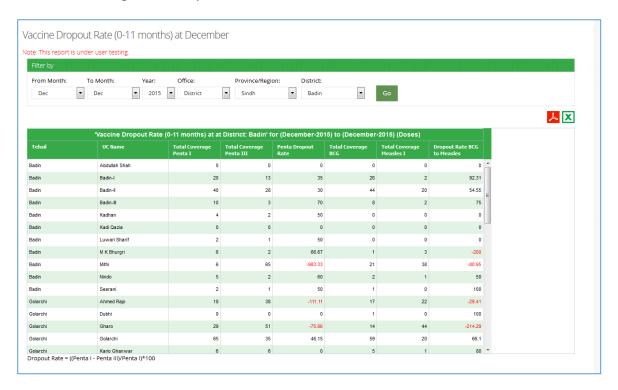
This report determines the details of the vaccine dropout rate.

Vaccine Dropout Rate Report: Filters

Following are the filters of Vaccine Stock Status and Wastage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.
- Province/Region: displays list of province and region.
- District: displays list of districts of selected province or region.

Click **GO** button to generate report.



Coverage Reports

BCG Coverage Report

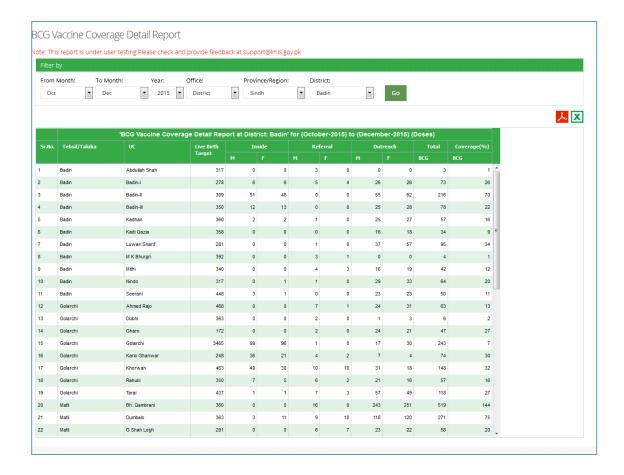
This report determines the coverage of BCG vaccine against selected filters.

BCG Coverage Report: Filters

Following are the filters of BCG Coverage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.
- **Province/Region**: displays list of province and region.
- District: displays list of districts of selected province or region.

Click **GO** button to generate report.



PCV Coverage Report

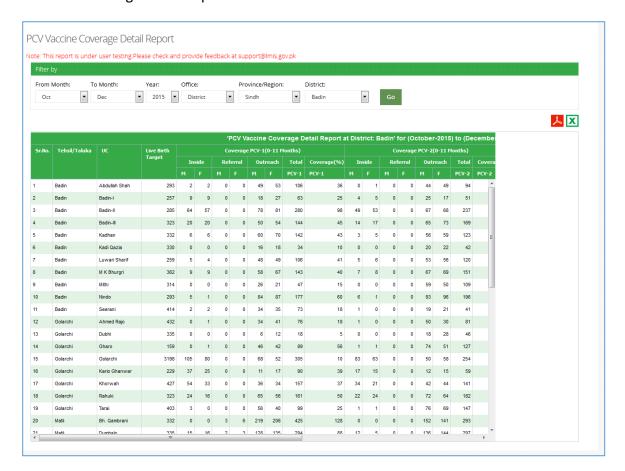
This report determines the PCV 10 vaccine coverage status against selected filters.

PCV Coverage Report: Filters

Following are the filters of PCV Coverage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.
- Province/Region: displays list of province and region.
- District: displays list of districts of selected province or region.

Click **GO** button to generate report.



Pentavalent Coverage Report

This report determines **Pentavalent** vaccine coverage status against selected filters.

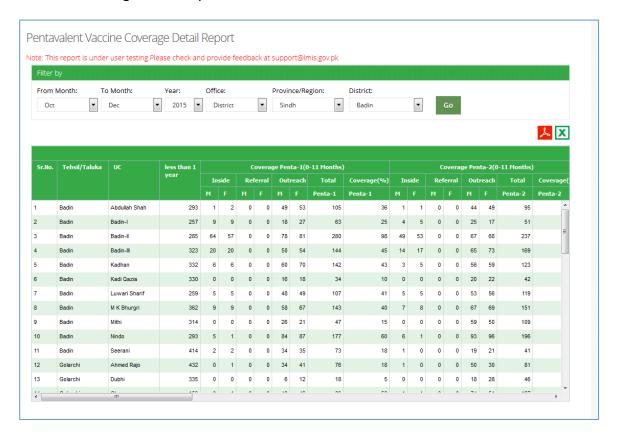
Pentavalent Coverage Report: Filters

Following are the filters of Pentavalent Coverage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.
- Province/Region: displays list of province and region.

• **District:** displays list of districts of selected province or region.

Click **GO** button to generate report.



tOPV Coverage Report

This report determines **tOPV** vaccine coverage status against selected filters.

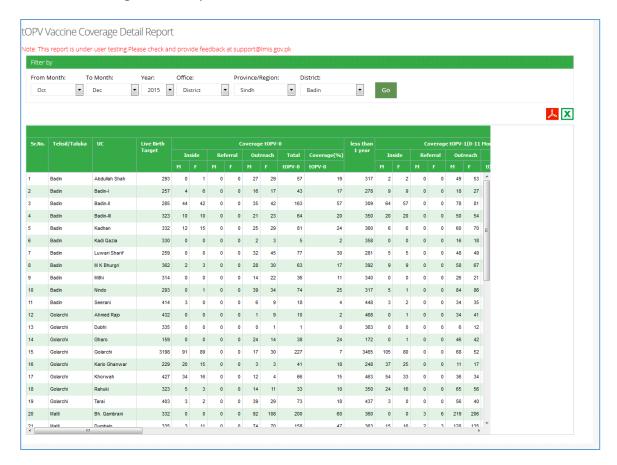
tOPV Coverage Report: Filters

Following are the filters of tOPV Coverage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.
- Province/Region: displays list of province and region.

District: displays list of districts of selected province or region.

Click **GO** button to generate report.



Measles Coverage Report

This report determines Measles vaccine coverage status against selected filters.

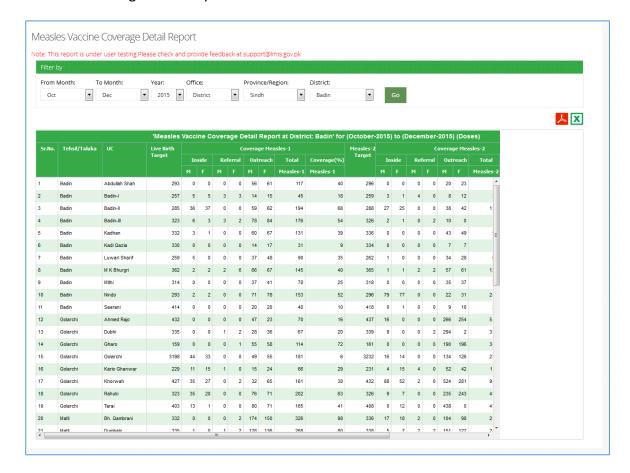
Measles Coverage Report: Filters

Following are the filters of Measles Coverage report.

- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.
- Office: displays list of levels.

- Province/Region: displays list of province and region.
- **District:** displays list of districts of selected province or region.

Click **GO** button to generate report.



TT Coverage Report

This report determines TT coverage status against selected filters.

TT Coverage Report: Filters

Following are the filters of TT Vaccine Coverage report.

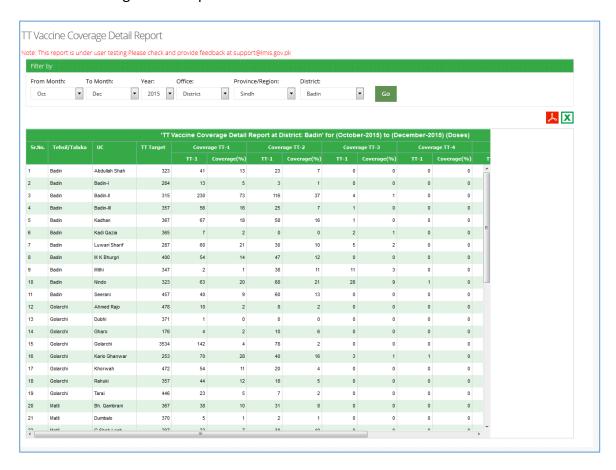
- From Month: displays list of month, user can select starting month for report.
- **To Month:** displays list of month, user can select end month for report.
- Year: displays list of years.
- Product: displays list of products.

Office: displays list of levels.

Province/Region: displays list of province and region.

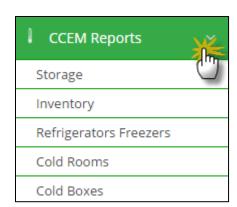
District: displays list of districts of selected province or region.

Click **GO** button to generate report.



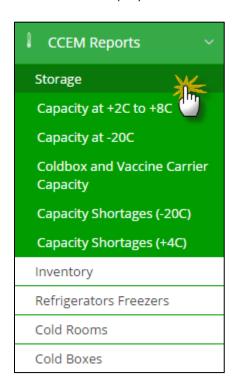
CCEM Reports

The CCEM Reports section provides a list of frequently used reports that are generated quickly at the central level to help national cold chain managers to analyze the cold chain equipment. All CCEM reports can be found in the main menu which can be generated for a regional subset or a select health facility type.



Storage

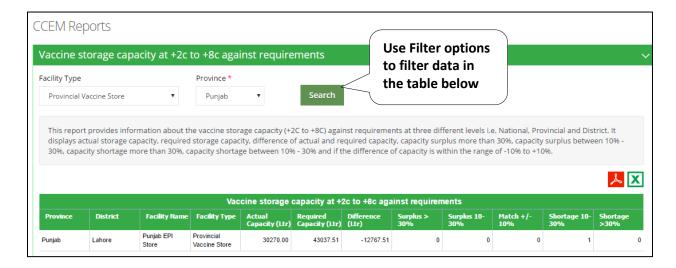
The storage menu can be viewed by selecting the "Storage" tab in the sub-menu. The drop down menu will be displayed as follows:



Capacity at +2c to +8c

User can select following filters according to their requirements. Available filters are as follows:

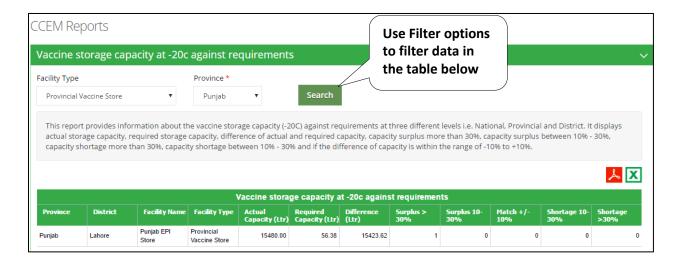
- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Capacity at -20c

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Capacity Shortages (-20C)

User can select following filters according to their requirements. Available filters are as follows:

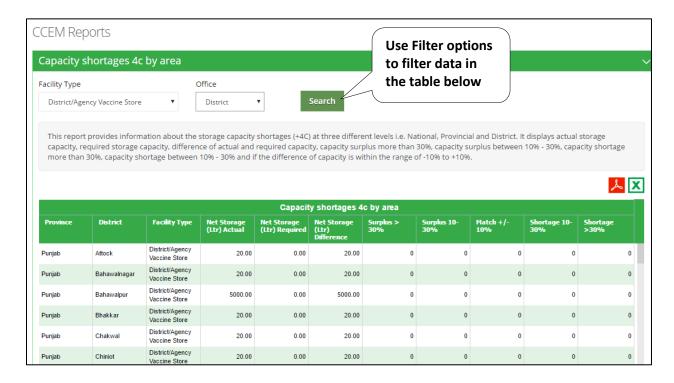
- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Capacity Shortages (+4C)

User can select following filters according to their requirements. Available filters are as follows:

- Facility Type
- 2. Office
- 3. Province
- 4. District



Cold-box and Vaccine Carrier Capacity

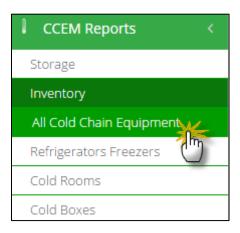
User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Inventory

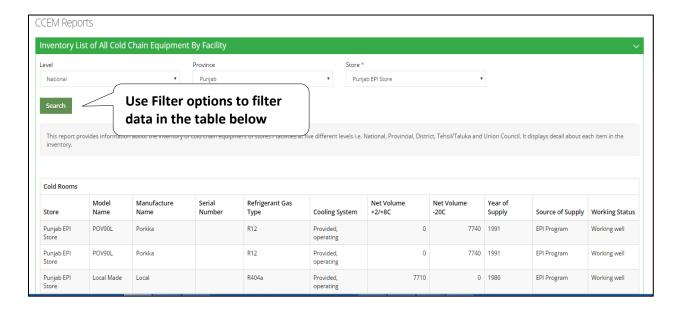
The inventory menu can be viewed by selecting the "Inventory" tab in the sub-menu. The drop down menu will be displayed as follows:



All Cold Chain Equipment

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Refrigerators Freezers

The refrigerators freezers menu can be viewed by selecting the "Refrigerators Freezers" tab in the sub-menu. The drop down menu will be displayed as follows:



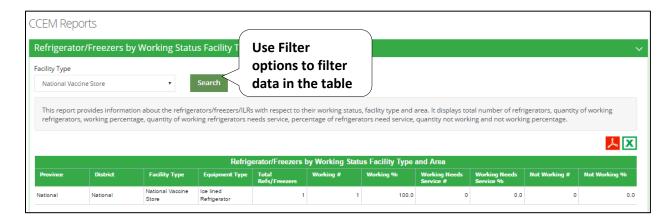
By Working Status Facility Type and Area

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District

Click Search.

A report for refrigerator/freezers according to the working status, facility type and area will be displayed.



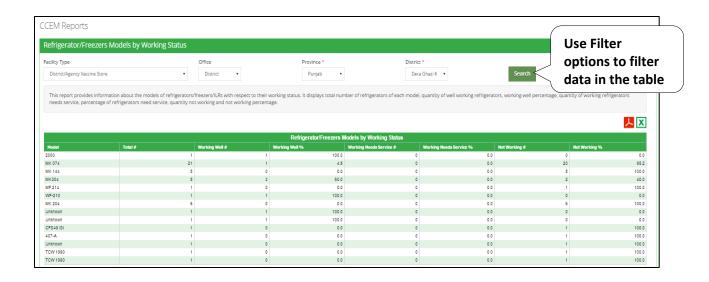
Refrigerators/Freezers Models by Working Status

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District

Click Search.

A report for the refrigerator/freezers models available according to the working status is displayed.



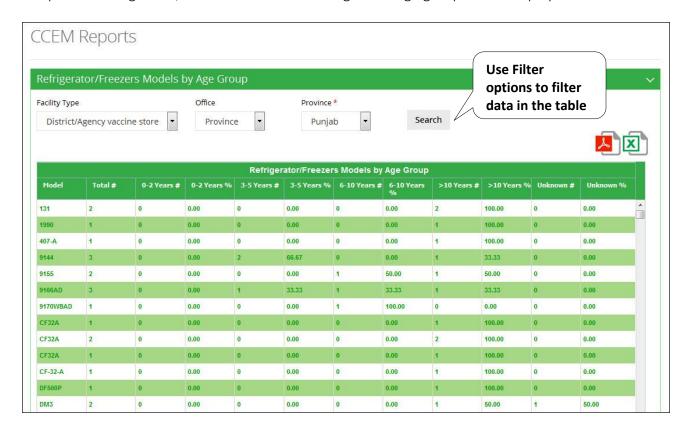
Refrigerators/Freezers Models by Age Group

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District

Click Search.

A report for refrigerator/freezers models according to the age group will be displayed.



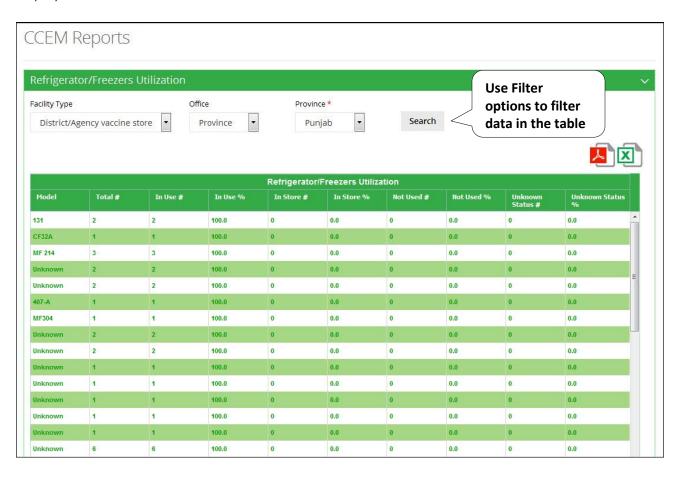
Refrigerators/Freezers Utilization

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District

Click Search.

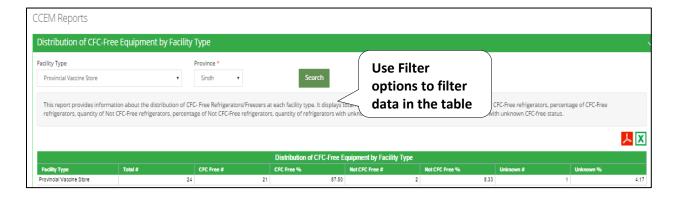
A report about the utilization of refrigerator/freezers in the selected province / district will be displayed.



Distribution of CFC-Free Equipment by Facility Type

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Refrigerators/Freezers Not Working or Needs Service

User can select following filters according to their requirements. Available filters are as follows:

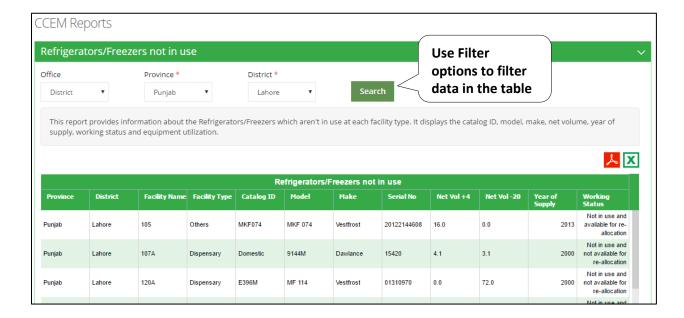
- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Refrigerators/Freezers not in use

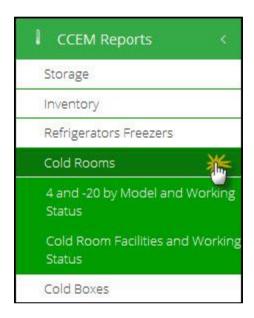
User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province



Cold Rooms

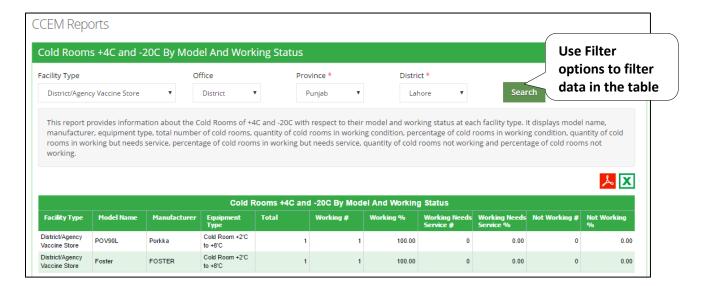
This menu can be viewed by selecting the "Cold Rooms" tab in the sub-menu. The drop down menu will be displayed as follows:



4 and -20 by Model and Working Status

User can select following filters according to their requirements. Available filters are as follows:

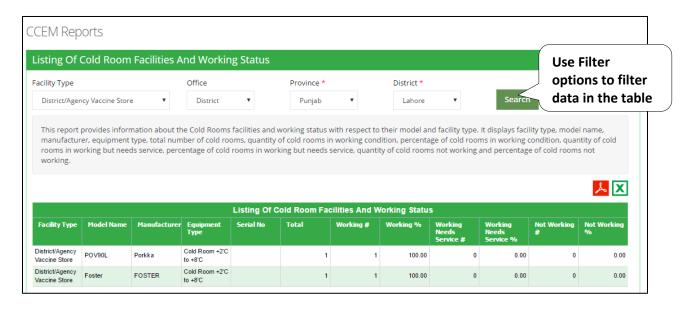
- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Cold Room Facilities and Working Status

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Cold Boxes

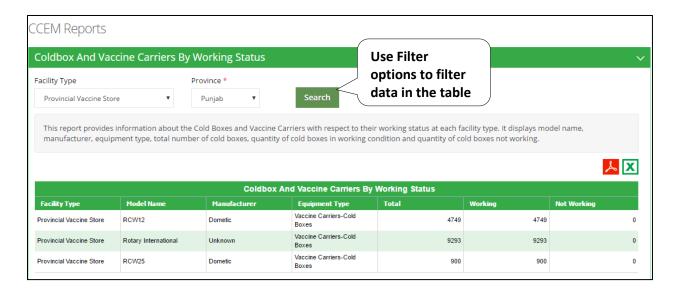
This menu can be viewed by selecting the "Cold Boxes" tab in the sub-menu. The drop down menu will be displayed as follows:



Cold box and Vaccine Carriers by Working Status

User can select following filters according to their requirements. Available filters are as follows:

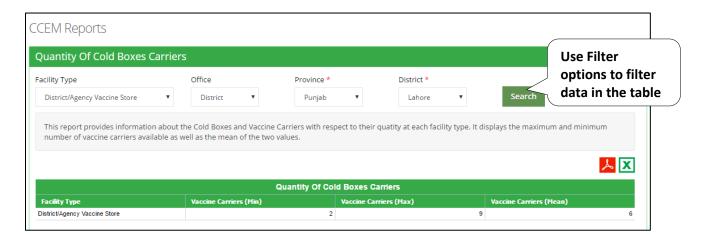
- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Cold Boxes/Carriers Quantity

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District



Campaign Reports

Users can also view the campaign reports from the Campaigns main-menu.

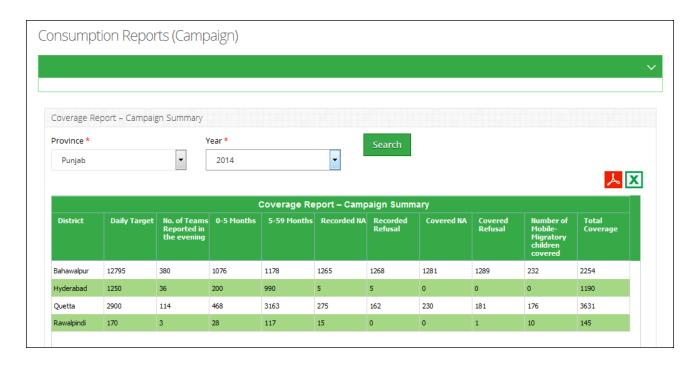


Campaigns Summary (Coverage)

This report helps user to get list of all campaigns in a summary form. The list can be generated on all parameters required for adding a campaign.

Select **Province** and the **Year** for which you want to view report.

A list of districts for the selected province will be displayed along-with the analytical report for the data.



Campaigns Detail (Coverage)

This report helps user to get list of all campaigns in detailed form. The list can be generated on all parameters required for adding a campaign.

Select **Province**, **District** and the **Campaigns** for with you want to view the report.

A list of tehsils for the selected district will be displayed along-with the analytical report for the data for each tehsil.

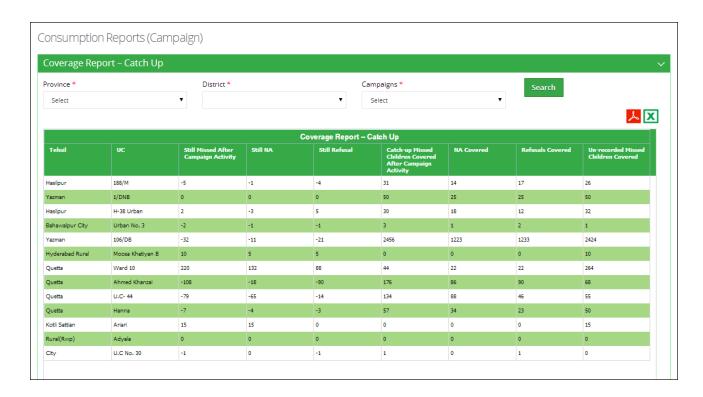


Catch-Up

It is a monitoring report to find how much this campaign has been effective on the tehsil level.

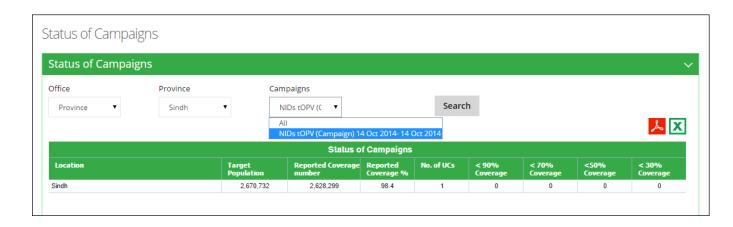
Select **Province**, **District** and the **Campaigns** for with you want to view the report.

A list of tehsils for the selected district will be displayed along-with the analytical report for the data for each tehsil.



Status of Campaigns

Status of Campaigns report displays the coverage status of a selected campaign at the National, Provincial and District level.



Maps

This section explains the step-by-step instructions on the maps features that can be used by the Vaccine Logistics Management Information system's users.

Overview

The Vaccine Logistics Management Information System enables you to login as an authenticated user to view these maps. These users can view geographical maps and stores data for any period using selection filters.

Why Web Mapping is important?

One of the main values of web mapping is its ability to highlight the reach and impact of the Government of Pakistan on the reliability and effective supply of commodities across the country with the rapid growth and acceptance of web mapping. It is seen as a very effective method of presenting data and engaging the use of data in decision making and transparency. Thus, the aim of this activity is to turn routine logistic data into interactive web maps which show the impact and encourage the use of logistics data in decision making. These interactive maps would be made Vaccines Logistics Management Information System (vLMIS). The expected outcome is to add value and increase the use of the existing information disseminates by Government of Pakistan through the web-based LMIS by providing the information a more captivating approach, to both promote the importance of supply chain and use of data in decision making. How these interactive mapping adds value is how they can intuitively engage the user in providing the data in a known context - in this case the map of Pakistan - and thus, begin to understand the map based on their existing understanding of Pakistan. By providing the data in a known context, it facilitate the user in been able to interpret the information been displayed. Below are some identified ways that this has it will add value:

• Understanding of the spatial distribution of commodities, where are stock shortages? And are next other districts with stock shortages or not?

- Improve ability of Managers to target actions, which districts do I need to monitor more closely?
- Easily Share data with other key stakeholders, for use as a discussion piece with stakeholders on what the current status is and what the planned actions are. For example, greater monitoring of activities in District X.

Web mapping in Pakistan

The use of web mapping in Pakistan has been growing over the past 5 years both publicly and within the government of Pakistan. This application will be helpful for the health managers at all levels of administrative tiers for planning, identification of possible supply chain problems and new areas of improvements. In addition, GIS dashboards combined with other reports and graphs of LMIS application will give quick overview of monthly situation of commodities and reporting status. This would be a good epidemiological tool to combine outputs of web-mapping application with other sources for data for research activities.

The LMIS also has the capability of generating easy to interpret maps with color codes. These interactive maps would be made available through the Government of Pakistan website and help in increasing the use of the existing information disseminates by Government of Pakistan through the web-based vLMIS by providing the information a more captivating approach, to both promote the importance of supply chain and use of data in decision making.

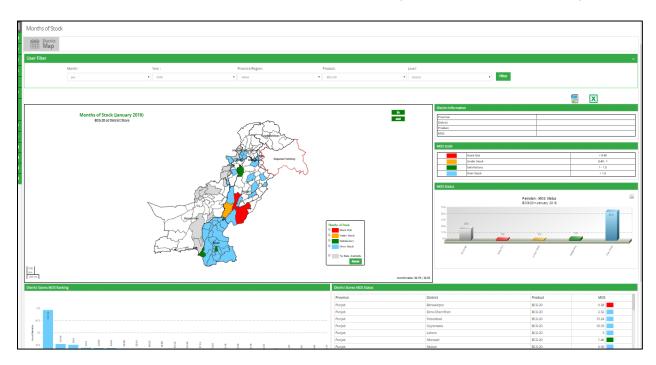
Maps

These maps can be viewed by selecting the "Maps" tab in the menu. The drop down menu will be displayed as follows: Once the indicator for which the map is to be viewed is selected, the user will be directed towards a page to select from various filters.



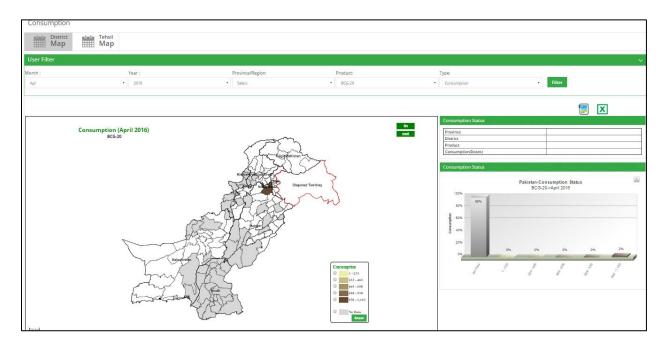
Month of Stock Map

Month of Stock (MOS) map provides many filter options to the user. User can select Month, Year, Province/Region, Product as well as Level to analyze MOS for each district in the selected province. The detailed information can be seen once the user clicks a particular district on the map.



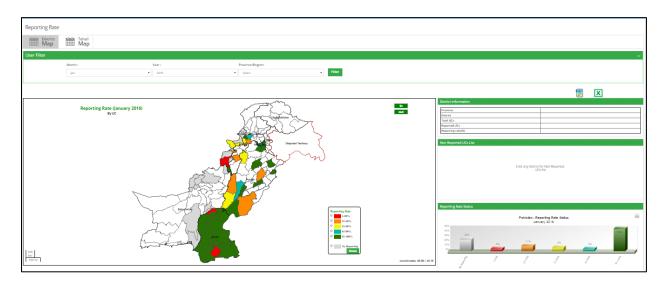
Consumption Map

Consumption map provides user with filter options such as Month, Year, Province/Region, Product as well as Type (Consumption and Avg. Monthly Consumption) to analyze product consumption for each district in the selected province. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



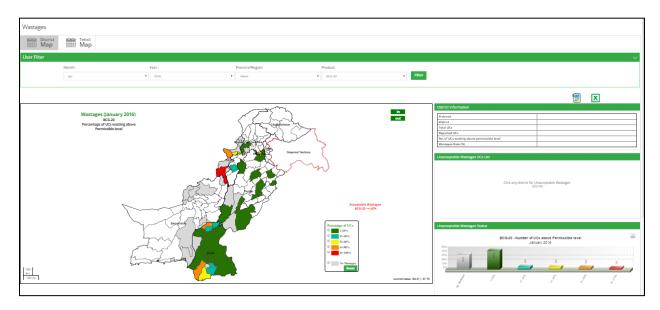
Reporting Rate Map

Reporting rate map shows the number of stores and facilities which have provided the report for each district. User can see filter options such as Month, Year, Province/Region and Product to analyze the reporting rate for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



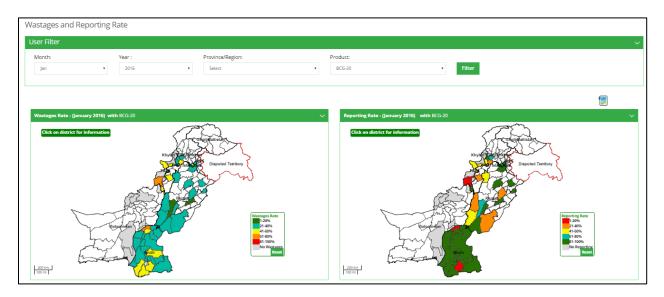
Wastages Map

Wastages map shows the wastages within the stores / facilities which have been provided in the report for each district. User can see filter options such as Month, Year, Province/Region and Product to analyze the wastage rate for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



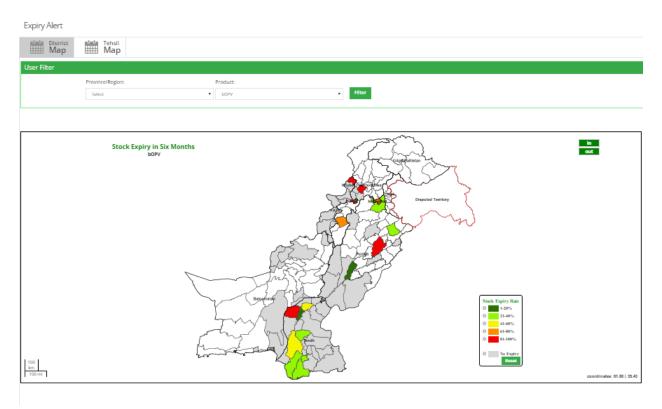
Wastages vs. Reporting Rate Map

This map shows the wastages vs. the reporting rate within the stores / facilities which have been provided in the report for each district. User can see filter options such as Month, Year, Province/Region and Product to analyze the wastages vs. reporting rate for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



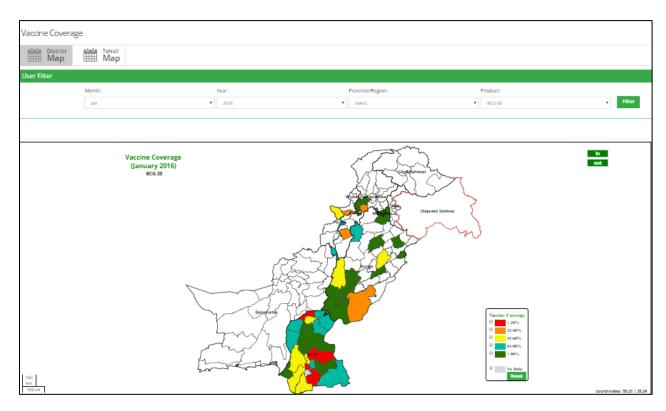
Expiry Alert Map

This map shows the expiry alert rate within the stores / facilities which have been provided in the report for each district. User can see filter options such as Month, Year, Province/Region and Product to analyze the expiry rate for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



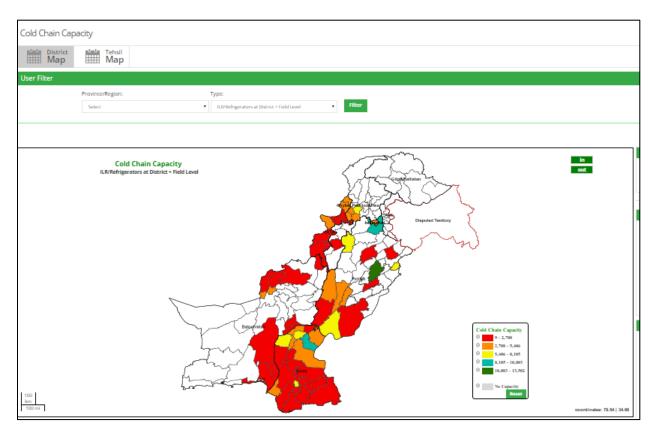
Vaccine Coverage Map

This map shows the vaccine coverage within the selected province in each district. User can see filter options such as Month, Year, Province/Region and Product to analyze the vaccine coverage for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



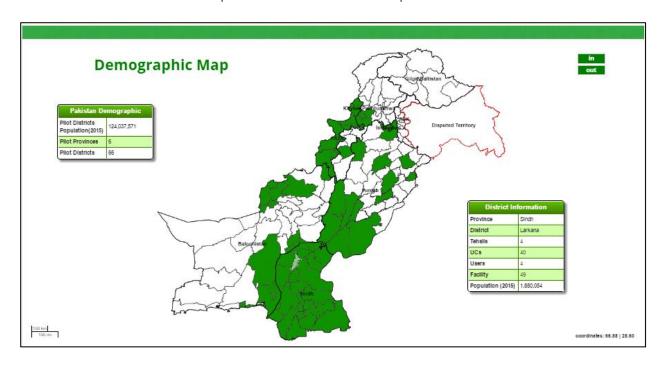
Cold Chain Capacity Map

This map shows the cold-chain capacity of each district within the selected province. User can see filter options such as Province/Region and Type of refrigerators or cold rooms to analyze the cold chain capacity rate for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map. User can view both district and tehsil maps.



Demographic Map

This map shows the representation of demographic data of the country. The detailed information can be seen once the user clicks a particular district on the map.



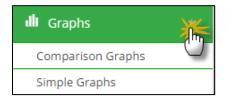
Graphs

This section explains the step-by-step instructions on the graphs features that can be used by the Vaccine Logistics Management Information system's users.

The Vaccine Logistics Management Information System enables you to login as an authenticated user to view these graphs. These users can view IM graphs and CCEM graphs to view data for any period using selection filters.

Graphs Menu

Clicking on **Graphs** menu displays the list of Graphs available in vLMIS as shown in the image below:



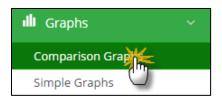
There are the following different types of graph reports:

- Comparison Graphs: enables you to compare different indicators.
- Simple Graphs: enables you to view different graph reports using indicators.

Comparison Graphs

The Comparison Graph Report provides representation of data in a visual format that can help you see overall trends easily based on indicators, geographical options and time interval.

Click Comparison Graphs under Graphs tab to open the desired page:



The Comparison Graphs includes the following:

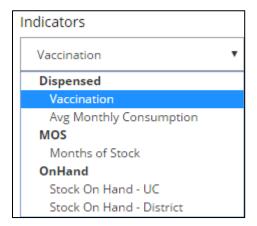
- Side bar for filter selection.
- Graph View for displaying the generated Graph.

The Comparison Graph Report consists of the following screen elements:

Selection Bar

The Selection Bar in the Comparison Graph Report includes different filters and select option to compare graphs to generate reports.

Clicking the **Indicators** drop-down displays the indicator options:



User can select one of the following options from the list:

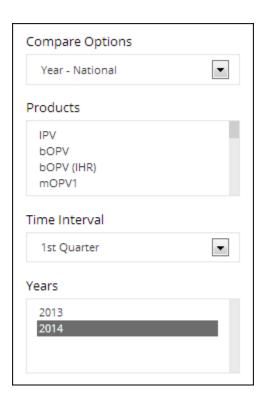
- Vaccination: select this option to plot a graph for Monthly Consumption.
- Average Monthly Consumption: select this option to plot a graph for Average Monthly Consumption.
- Month of Stock: select this option to plot a graph for Months of Stock.
- Stock On Hand UC: select this option to plot graph for Stock in Hand for UC.
- Stock on Hand District: select this option to plot graph for Stock in Hand for District.

Clicking the Compare Options drop-down displays the following options:

- Year National: selects only National level data.
- Year Provincial: selects only Provincial level data.
- Year District: selects only District level data.
- Geographical Provincial: selects the provincial level geographical data.
- Geographical District: selects the district level geographical data.

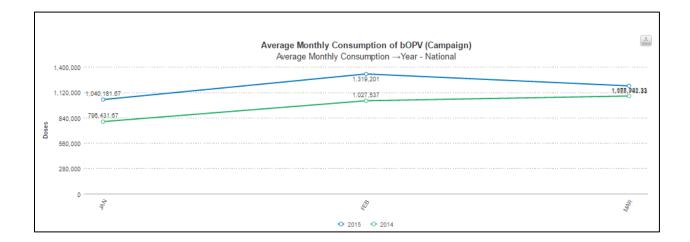
Year - National

Selecting Years – National in the list enables you to compare National level data for the selected years, and displays the Years list as shown in the image below:

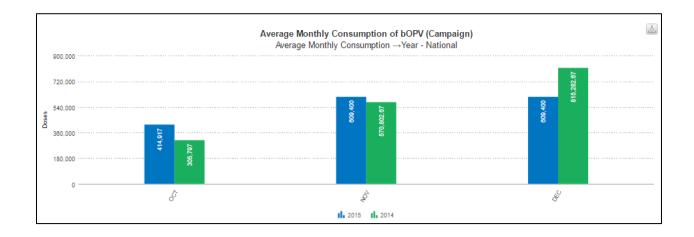


You can select multiple list entries (years) from the **Years** list for side by side comparison of National level data for the selected years.

Comparison Line Graph for Average Monthly Consumption, Time Interval and Years selected is displayed below:

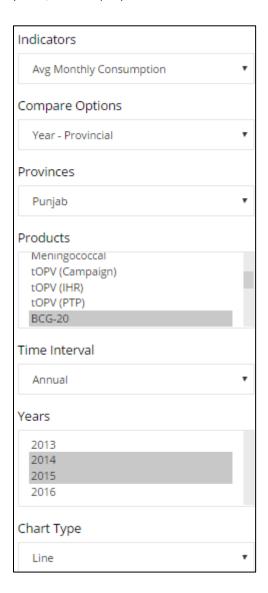


Comparison Bar Graph for Average Monthly Consumption, Time Interval and Years selected is displayed below:



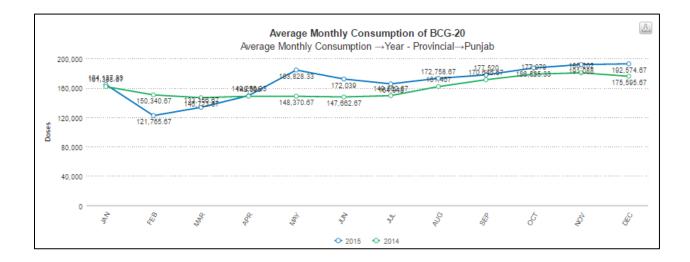
Year - Provincial

Selecting **Years – Provincial** in the list enables you to compare Provincial level data for the selected years, and displays the **Years** list as shown in the image below:

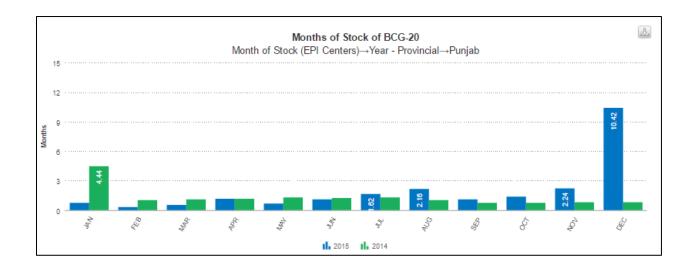


You can select multiple list entries (years) from the **Years** list for side by side comparison of Provincial level data for the selected years. You also need to select the required province as shown in the image above.

Comparison Line Graph for Vaccine's Average Monthly Consumption, Time Interval and Years selected is displayed below:

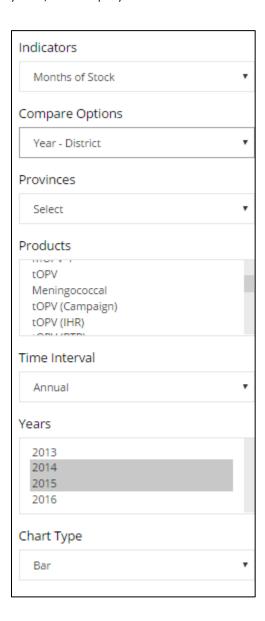


Comparison Bar Graph for **Vaccine's** Months of Stock, Time Interval and Years selected is displayed below:

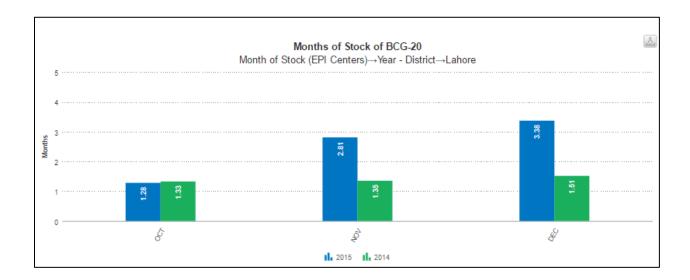


Year - District

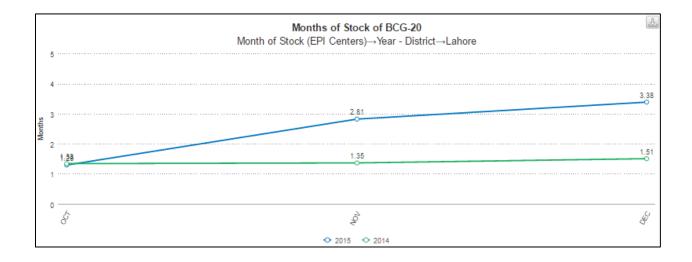
Selecting **Years – District** in the list enables you to compare District level data for the selected years, and displays the **Years** list as shown in the image below:



Comparison Bar Graph for **Vaccine's** Months of Stock, Time Interval and Years selected is displayed below:

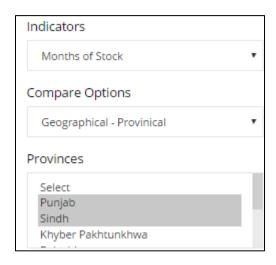


Comparison Line Graph for **Vaccine's** Months of Stock, Time Interval and Years selected is displayed below:

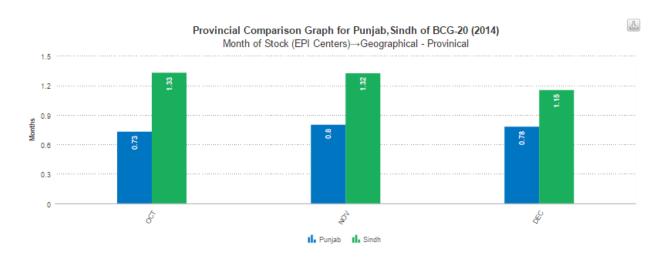


Geographical - Provincial

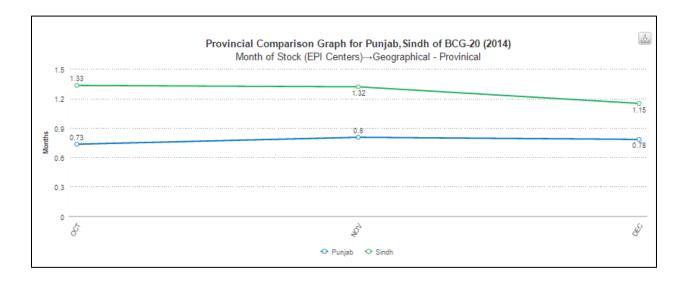
Selecting **Geographical – Provincial** in the list enables you to compare Provincial level data side by side for the selected time interval.



Comparison Bar Graph for **Vaccine's** Months of Stock, Time Interval, Province and Years selected is displayed below:

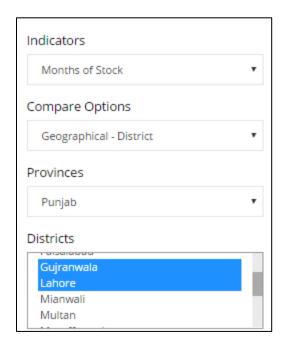


Comparison Line Graph for **Vaccine's** Months of Stock, Time Interval, Province and Years selected is displayed below:



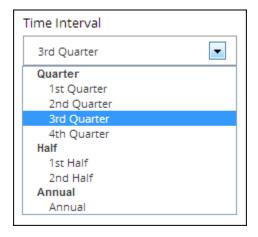
Geographical – District

Selecting **Geographical – District** in the list enables you to compare District level data side by side for the selected time interval.



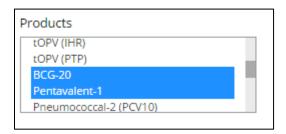
Users can also select one or multiple options in the Products list. To select multiple Products, click on the required product, press the **CTRL** key on the keyboard, and then click on the required products in the list.

Click the **Time Interval** drop-down to display the following options:

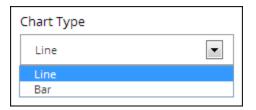


Select the required time period for which you want to generate the graph report.

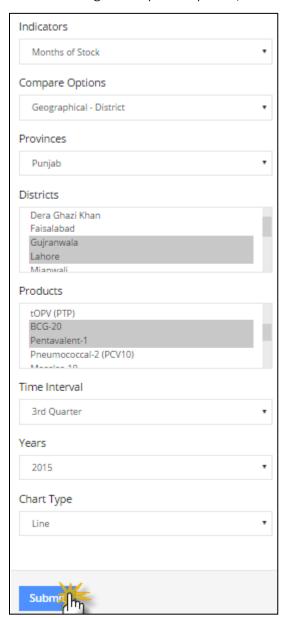
Users can also select multiple years in the **Year** menu. To select multiple years, click on the required product, press the **CTRL** key on the keyboard, and then click on the required products in the list.



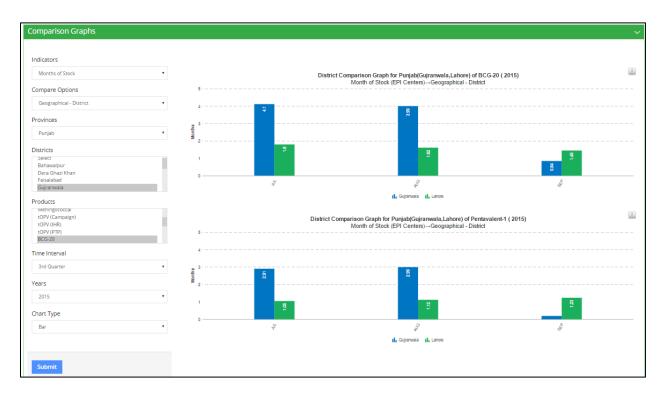
The **Chart Type** drop-down list enables you to select either Bar or Line chart for plotting format options. Select the required type.



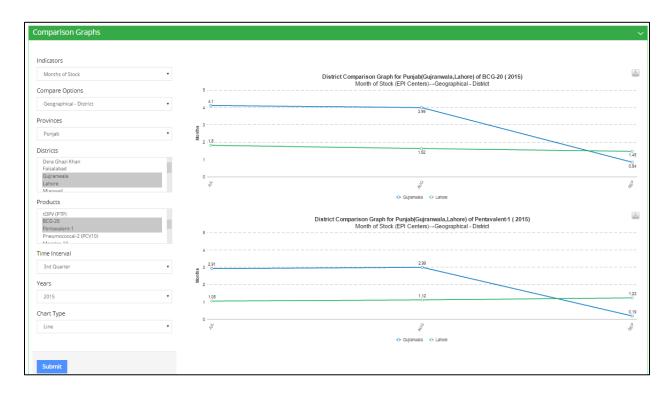
After selecting the required options, click **Submit** to generate the graph report.



If the user selects bar chart, the graph displays as shown below:



If the user selects Line chart, the graph displays as shown below:



Simple Graphs

The Simple Graph Report provides representation of data in a visual format that can help you see overall trends easily based on indicators, geographical options and time interval.

Click **Simple Graphs** under Graphs tab to open the desired page:



The Graph includes the following:

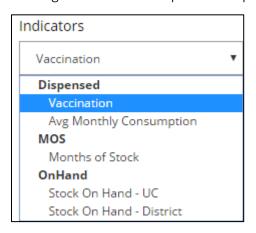
- Side bar for filter selection.
- Graph View for displaying the generated Graph.

The Simple Graph consists of the following screen elements:

Selection Bar

The Selection Bar in the Simple Graph includes different filters and select option to generate graphs.

Clicking the **Indicator** drop-down displays the indicator options:



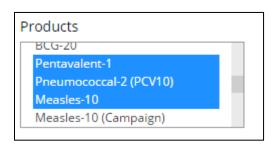
User can select one of the following options from the list:

- Vaccination: select this option to plot a graph for Monthly Consumption.
- Average Monthly Consumption: select this option to plot a graph for Average Monthly Consumption.
- Month of Stock: select this option to plot a graph for Months of Stock.
- Stock On Hand UC: select this option to plot graph for Stock in Hand for UC.
- Stock on Hand District: select this option to plot graph for Stock in Hand for District.

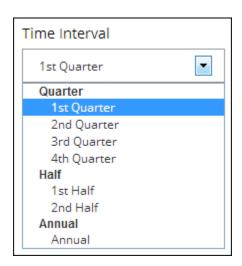
Clicking the Geographical Options drop-down displays the following options:

- National: selects only National level data.
- **Provincial**: selects only Provincial level data.
- **District**: selects only District level data.

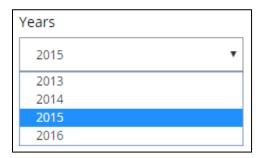
You can select one or multiple options in the Products list. To select multiple Products, click the required product, press the **CTRL** key on the keyboard, and then click on the required products in the list.



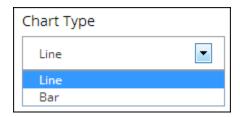
Clicking the **Time Interval** drop-down displays the following options:



Select the required time period for which you want to generate the graph report. Clicking the **Year** drop-down displays the years for which data is available. Select the required year.



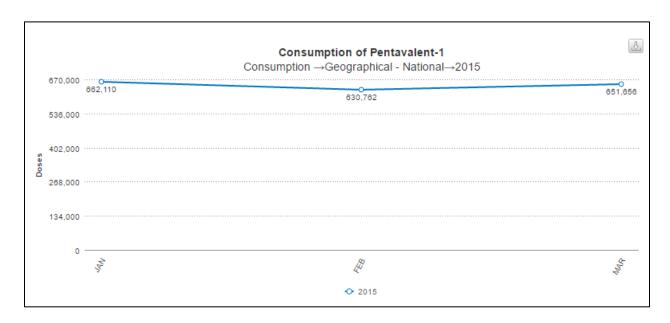
The **Chart Type** drop-down list enables you to select either Bar or Line chart for plotting format options. Select the required type.



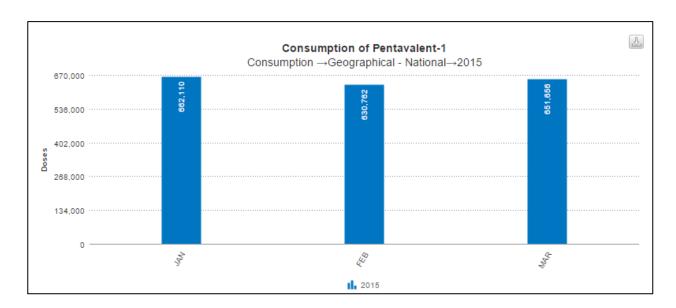
After selecting the required options, click **Submit** to generate the graph report.



A generated line graph is shown in the image below:

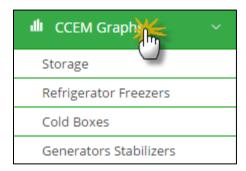


If the user selects Bar chart, the graph displays as shown below:



CCEM Graphs

Clicking on **CCEM Graph** menu displays the list of Graphs related to cold-chain equipment management, as shown in the image below:

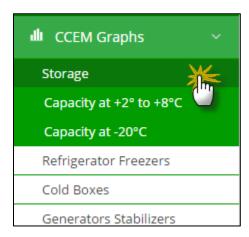


There are the following different types of graph reports:

- Storage: enables you to compare different indicators to determine capacity.
- Refrigerator Freezers: enables you to the status of refrigerators and freezers.
- Cold Boxes: enables you to determine the status of cold-boxes.
- Generators Stabilizers: enables you to determine the status of generators and stabilizers.

Storage

Clicking on **Storage** sub-menu displays the list of Graphs related to storage management, as shown in the image below:



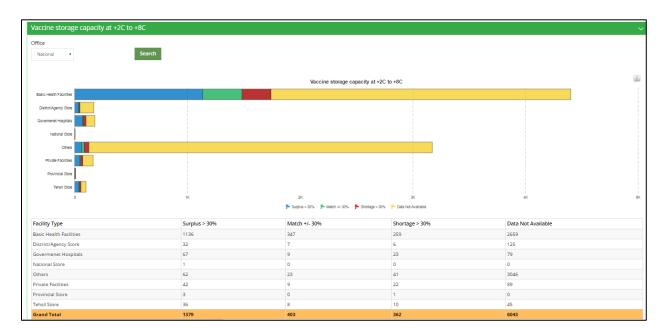
Capacity at +2c to +8c

User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province
- 3. District

Click Search.

The desired graph is displayed as follows:



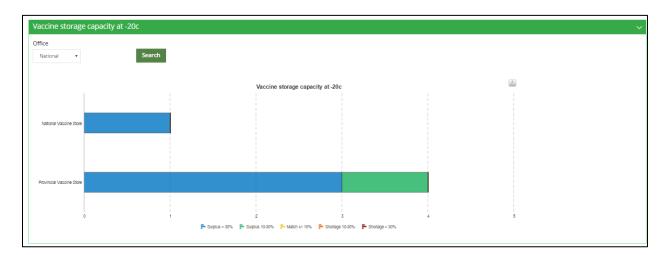
Capacity at -20C

User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province
- 3. District

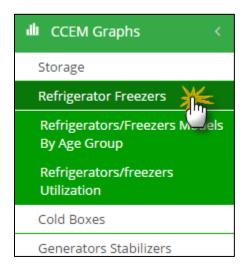
Click Search.

The desired graph is displayed as follows:



Refrigerator Freezers

Clicking on **Refrigerator Freezers** sub-menu displays the list of Graphs related to cold-chain equipment management, as shown in the image below:



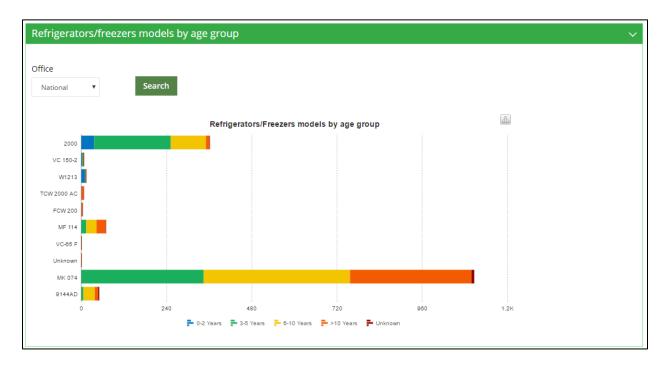
Refrigerators / Freezers Model By Age Group

User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province
- 3. District

Click Search.

The desired graph is displayed as follows:



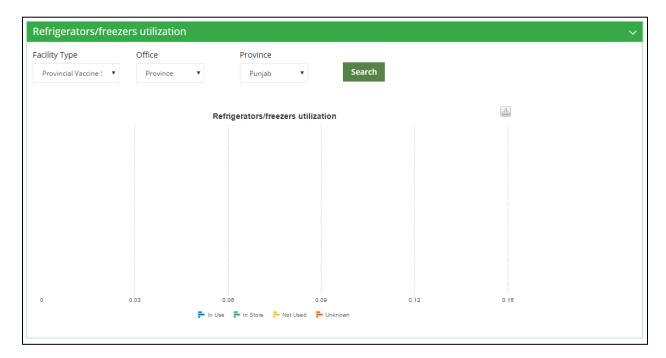
Refrigerators / Freezers Utilization

User can select following filters according to their requirements. Available filters are as follows:

- 1. Facility Type
- 2. Office
- 3. Province
- 4. District

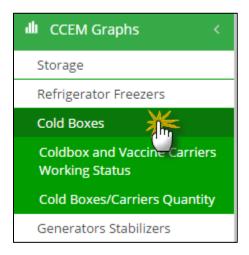
Click Search.

The desired graph is displayed as follows:



Cold Boxes

Clicking on **Cold Boxes** sub-menu displays the list of Graphs related to cold-chain equipment management, as shown in the image below:



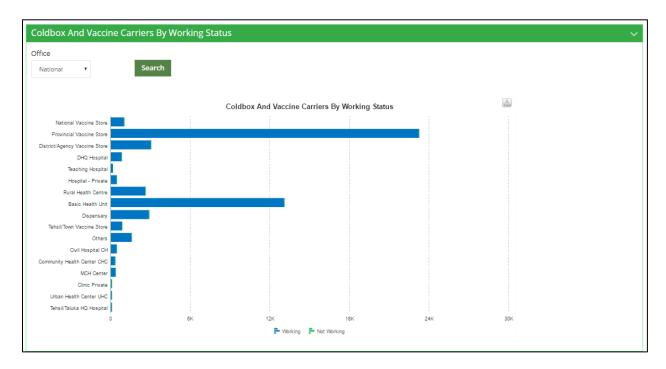
Cold-box and Vaccine Carriers Working Status

User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province
- 3. District

Click Search.

The desired graph is displayed as follows:



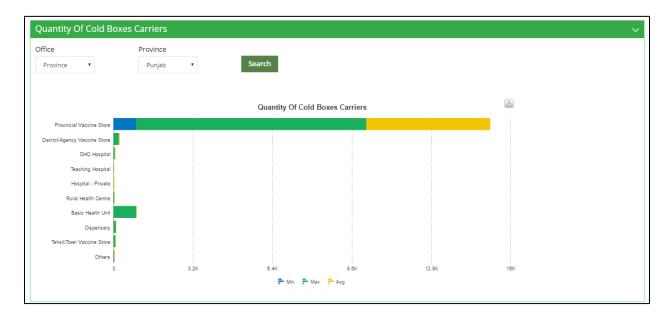
Cold-boxes / Carrier Quantity

User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province
- 3. District

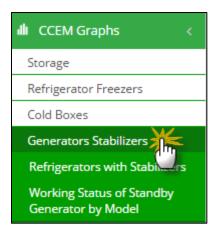
Click Search.

The desired graph is displayed as follows:



Generators Stabilizers

Clicking on **Generators Stabilizers** sub-menu displays the list of Graphs related to cold-chain equipment management, as shown in the image below:



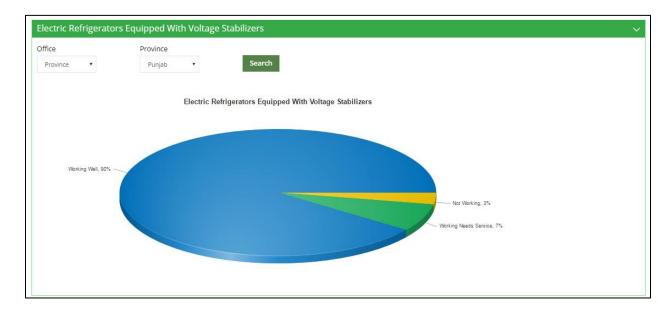
Refrigerators with Stabilizers

User can select following filters according to their requirements. Available filters are as follows:

- 1. Office
- 2. Province
- 3. District

Click Search.

The desired graph is displayed as follows:



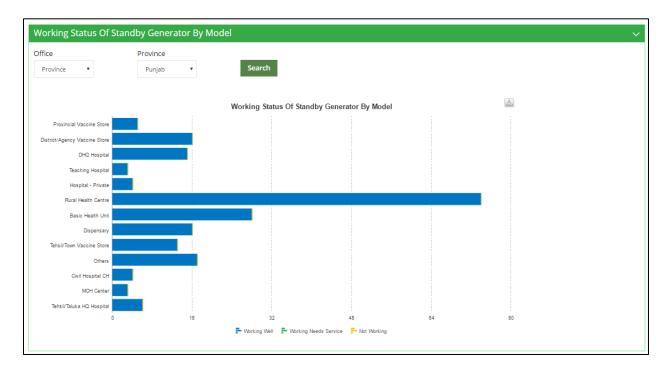
Working Status of Standby Generator by Model

User can select following filters according to their requirements. Available filters are as follows:

- 4. Office
- 5. Province
- 6. District

Click Search.

The desired graph is displayed as follows:



vLMIS Explorer

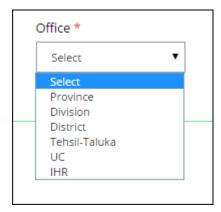
The LMIS explorer enables you to view the previously submitted Monthly Report data for the selected store and the specified month - year.

Click **vLMIS Explorer** in the side-bar to open the vLMIS Explorer:



To view the Monthly Report data using vLMIS Explorer:

1. In LMIS Explorer page, click **Office** drop-down list:



Province

If **Province** is selected in the **Office** drop-down list, the **Province** and **Store** dropdown is displayed for the selection, as shown in the image below:



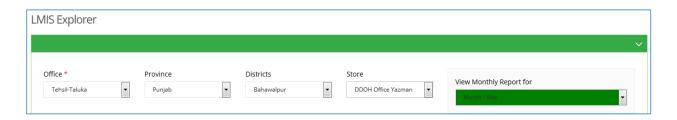
District

If **District** is selected in the **Office** drop-down list, the **Province** and **Store** dropdown is displayed for the selection, as shown in the image below:



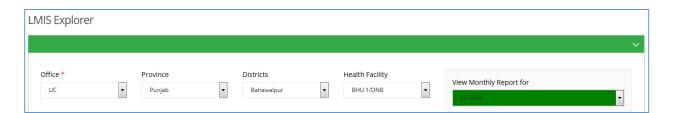
Tehsil - Taluka

If **Tehsil - Taluka** is selected in the **Office** drop-down list, the **Province** dropdown is displayed for selecting the Province. On selecting the Province, the **District** drop-down is displayed for selecting the district. On selecting the District, **Store** drop-down displays for selecting the required store.

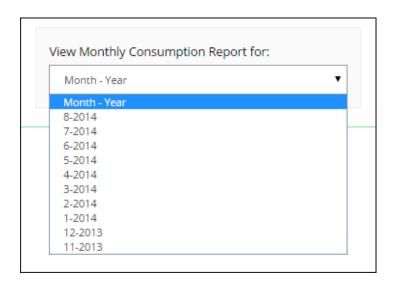


UC

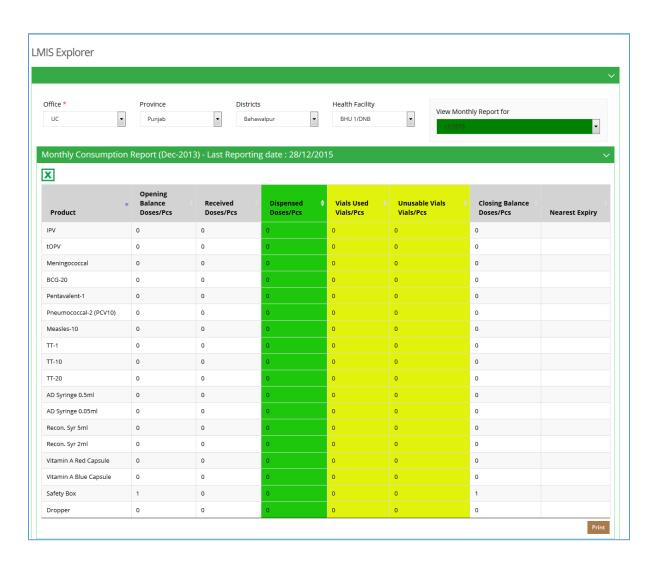
If **UC** is selected in the **Office** drop-down list, the **Province** dropdown is displayed for selecting the Province. On selecting the Province, the **District** drop-down will be displayed for selecting the District. The **Health Facility** drop-down displays for selecting the required health facility within the selected district, as shown in the image below:



2. In **View Monthly Consumption Report for:** drop-down list, select the Month and Year for which you want to view the report.



The Monthly Report displays:



You can change the selections in the filter as required to view Monthly Report for any other location or time period.

Consumption User - Tehsil

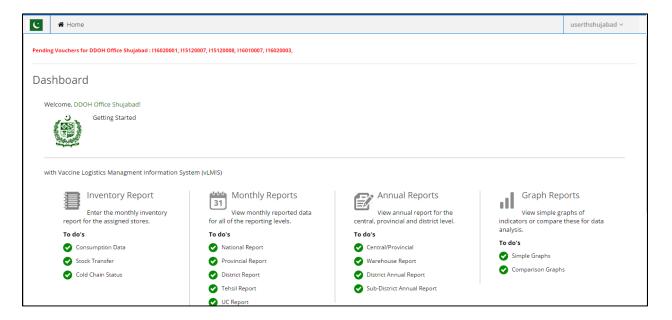


in Vaccine Logistics Management Information System

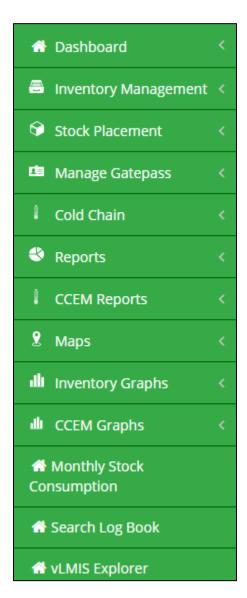
This section explains the overview of the EPI Users (Tehsil) and describes the tasks need to be performed using Vaccine Logistics Management Information System.

Consumption User - Tehsil Level

Logging in to the Tehsil User account displays the account's Home page screen as shown below:



On the left side of the dashboard screen, the EPI user will see the following tabs:



User can sign out of the application by using the following link on the right side of the screen.



Tehsil User screen includes the following features:

- Dashboards: User can view dashboards containing graphs, maps and analytical reports by using this tab.
- Inventory Management: enables the user to manage the stock in the inventory. Tehsil users can also issue stock to tehsil level stores / facilities as well as send the stock back to the upper level facility/store.
- Stock Placement: enables the user to manage stock locations within the store.
- **CCEM**: enables the account user to report the cold chain asset's status of the assigned stores, which helps identify the working condition of the cold-chain machine.
- Reports: user can view the data analysis reports for data analysis. Refer to the "Reports" section for details.
- CCEM Reports: user can view the data analysis reports for cold chain equipment. Refer to the "CCEM Reports" section for details.
- Maps: enables user to view the geographical maps. Refer to the "Maps" section for details.
- IM Graphs: user can view graph comparison reports for comparing and analyzing data.
 Refer to the "IM Graphs" section for details.
- CCEM Graphs: user can view CCEM graphs for analyzing data. Refer to the "CCEM Graphs" section for details.
- Monthly Stock Consumption: Tehsil users can collect data from the assigned stores during the month and then compiles and calculates it to add it to the monthly inventory report.
- **vLMIS Explorer**: user can also view the previously submitted Monthly Report data for the selected store and the specified month year.

Monthly Stock Consumption

Monthly stock consumption is an important indicator that is calculated manually during the month. The EPI Tehsil store/ Cluster Lead operator collects data from the assigned UCs/EPI Centers during the month and then compiles and calculates it to add it to the monthly consumption report.

Tehsil / Cluster Lead operator will enter data in vLMIS according to the individually defined EPI Centers. Data can be entered for each month on or after the 1st date of the next month. Data entry operators can edit data for the last entered month for that store / facility.

Vaccine Consumption Data Entry Fields for Operators

The following 4 main data entry sections are included in the vaccine consumption data entry:

System is showing month, year, district, tehsil and UC along-with the reporting EPI Center name. The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:

	Month	March	Year	2014			
	District	Bahawalpur	Taluka	Yazman			
	UC	1/DNB	EPI Center	BHU 1/DNB			
	Outreach Vaccination Session						
Planned Actually Held							
	0 0						

For Sindh users, following screen will be displayed:

Month	February	Year	2016	
District	Qambar	Taluka	Qambar BHU Ghatahar	
UC	BER	EPI Center		
Fixed Vaccina	tions Sessions	Outreach Vaccination Session		
Planned	Actually Held	Planned	Actually Held	
0	0	0	0	

Add the monthly targets in the following fields:

Monthly Targets:

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:

MONTHLY TARGETS				
Total Population of UC	0			
Pregnant Women	0			
Children Live Birth	0			
Surviving Children (0-11 M)	0			
Children Aged (12-23 M)	0			

For Sindh users, following screen will be displayed:

MONTHLY TARGETS			
CBAs	0		
Pregnant Women	0		
Children Live Birth	0		
Surviving Children (0-11 M)	0		
Children Aged (12-23 M)	0		
2 year and Above	0		

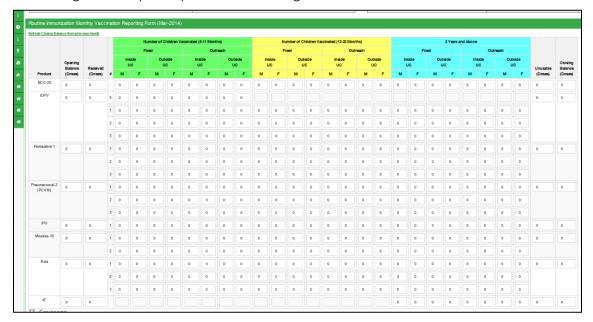
- Total Population of UC
- Pregnant Women
- Live Birth (For BCG)
- Surviving Children (0-11 M)
- Children Aged (12-23 M)

Routine Immunization:

Perform data entry for vaccines. Enter data in the following fields:

- Opening Balance (Doses)
- Received (Doses)
- Number of Children Vaccinated (0-11 Months)
 - o Fixed number of children vaccinated inside/outside UC (Males and Females)
 - o Outreach number of children vaccinated inside/outside UC (Males and Females)
- Number of Children Vaccinated (12-23 Months)
 - o Fixed number of children vaccinated inside/outside UC (Males and Females)

- o Outreach number of children vaccinated inside/outside UC (Males and Females)
- 2 Years and Above
 - o Fixed number of children vaccinated inside/outside UC (Males and Females)
 - o Outreach number of children vaccinated inside/outside UC (Males and Females)
- Unusable (Doses): Enter the number of unusable vaccine in doses
- Closing Balance (Doses): Enter the closing balance in doses.



TT Coverage:

Enter the TT Coverage data in the following fields:

- Opening Balance (Doses)
- Received (Doses)
- Pregnant Women (Vaccinated Inside/Outside UC)
- CBAs (Vaccinated Inside/Outside UC)
- Closing Balance (Doses)
- Unusable (Doses)



Other Items:

Perform data entry for other items and enter data in the following fields:

- Opening Balance (No)
- Received (No)
- Dispensed (No)
- Closing Balance (No)

Other Items						
Product	Opening Balance (No)	Received (No)	Dispensed (No)	Closing Balance (No)		
DIL-BCG-20	0	0	0	0		
DIL-Measles-10	5	0	0	0		
AD Syringe 0.5ml	129	0	0	0		
AD Syringe 0.05ml	0	0	0	0		
Recon. Syr 5ml	13	0	0	0		
Recon. Syr 2ml	0	0	0	0		
Safety Box	1	0	0	0		
Ice Packs(0.5)	32			32		
loe Packs(0.9)	8			8		
Vaccine Carriers-Cold Boxes(Carrier)	2			2		
Vaccine Carriers-Cold Boxes(Rotary International)	16			16		
Stabilizers(Unknown)	1			1		

Click on the "Save" button to save the consumption reporting data. User can also go back to the main Monthly Consumption screen by clicking "Go back to main" button.

To add the monthly stock consumption report:

- Sign in to the Tehsil User account.
 User Home page displays.
- From the left menu, click Monthly Stock Consumption.
 The Monthly Consumption page displays.
- 3. The reports for the previous and the current month in the tehsil will be displayed.
- 4. Click the month for which you want to view or update report from the **Reporting**Months column.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



The below screen will be displayed to Sindh Users:



Update Consumption Report

To update the monthly consumption report, user can select the report from the reporting month column.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



The below screen will be displayed to Sindh Users:



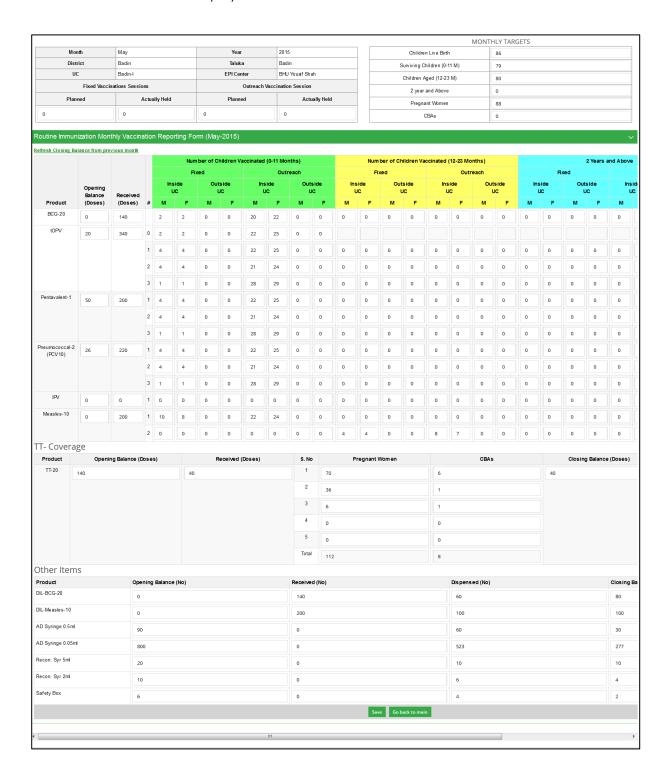
An editable report from the selected month will be displayed.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



Edit the report as required and click Save.

The below screen will be displayed to Sindh Users:

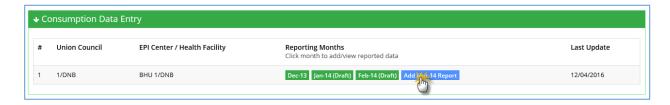


Edit the report as required and click Save.

View Consumption Report

Data entry operator in the tehsil and UC can also update data of any previous month in the list. To view the monthly consumption report, user can select the report from the reporting month column.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users

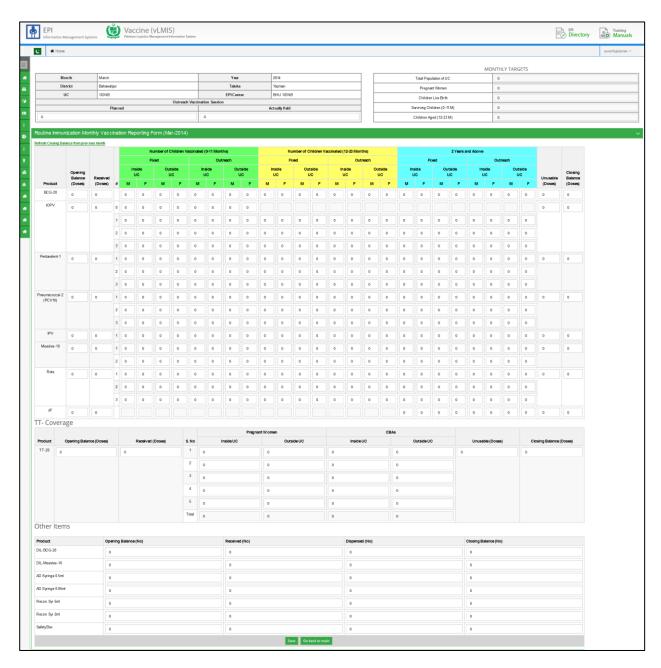


The below screen will be displayed to Sindh Users:

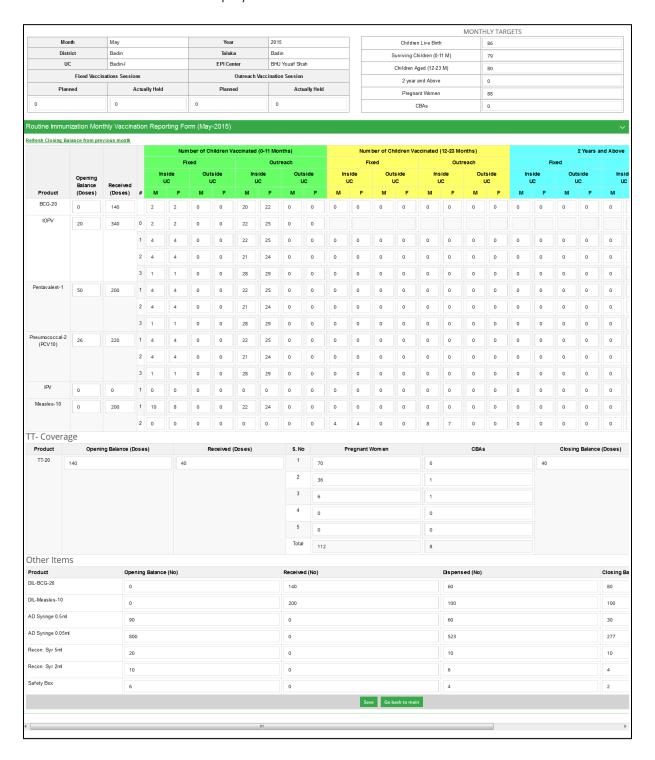


The report for the selected month will be displayed.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



The below screen will be displayed to Sindh Users:



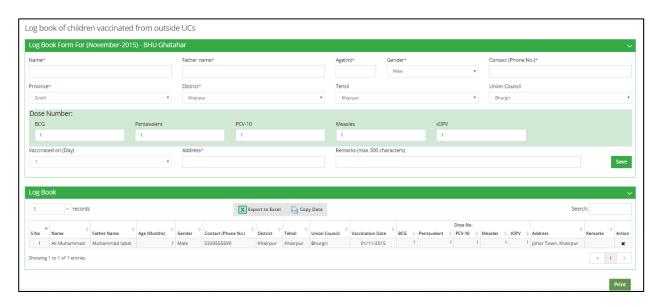
Log Book

Sindh Data entry operator in the tehsil/taluka and UC can also update data in log book. To view the Log Book form, user click the Log Book and add the report of a selected month.

The user can click the month tab in the Log Book row as shown below:



Log book of children vaccinated from outside UCs will be displayed.



The elements of the screen are as following:

- S. No: shows the serial numbers from 1 to 10 for children vaccinated from outside UCs.
- Name: enter the name of the child.
- Father Name: enter the name of the child's father.
- Age: enter the age of the child
- Contact: enter the contact number.
- Address: enter the address.
- District: select the district from the list.
- Union Council: select the union council from the list.
- Date of Vaccination: select the date of vaccination.

- Dose No.: enter the number of dose for the following:
 - BCG 20
 - Penta 1
 - o PCV10
 - Measles 10
 - o bOPV 20
- Remarks: enter remarks if any.

Click "Save".

Cold Chain Status Update

The user can update working status of cold chain asset every month.

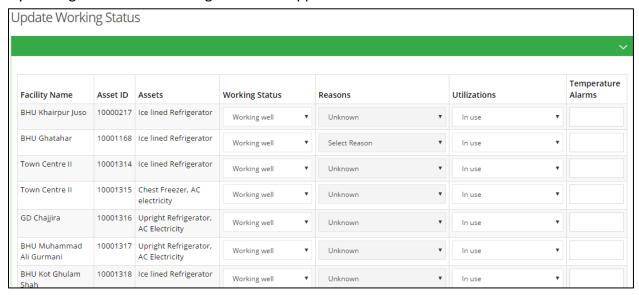
The cold chain status can be updated by clicking the **Cold chain Status Update** tab as shown below:



User can select the month as shown below:



By clicking the month following screen will appear:



The User can update the following:

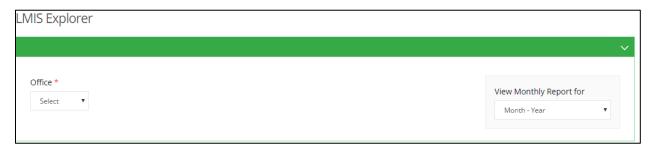
- Working Status: select the status of the cold chain asset from the list.
- **Reasons:** select the reasons from the drop down menu.
- Utilization: select the utilization of the asset
- Temperature Alarms: enter the quantities of temperature alarms

• Click "Update"

vLMIS Explorer

The LMIS explorer enables you to view the previously submitted Monthly Report data for the selected store and the specified month - year.

Click **vLMIS Explorer** in the side-bar to open the vLMIS Explorer:



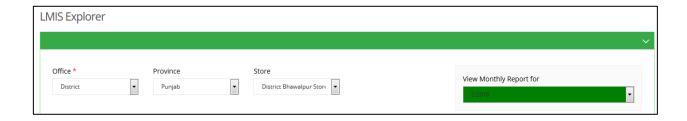
To view the Monthly Report data using vLMIS Explorer:

3. In LMIS Explorer page, click **Office** drop-down list:



District

If **District** is selected in the **Office** drop-down list, the **Province** and **Store** dropdown is displayed for the selection, as shown in the image below:



Tehsil - Taluka

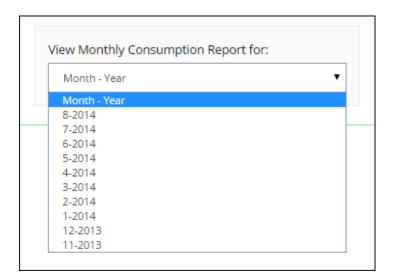
If **Tehsil - Taluka** is selected in the **Office** drop-down list, the **Province** dropdown is displayed for selecting the Province. On selecting the Province, the **District** drop-down is displayed for selecting the district. On selecting the District, **Store** drop-down displays for selecting the required store.



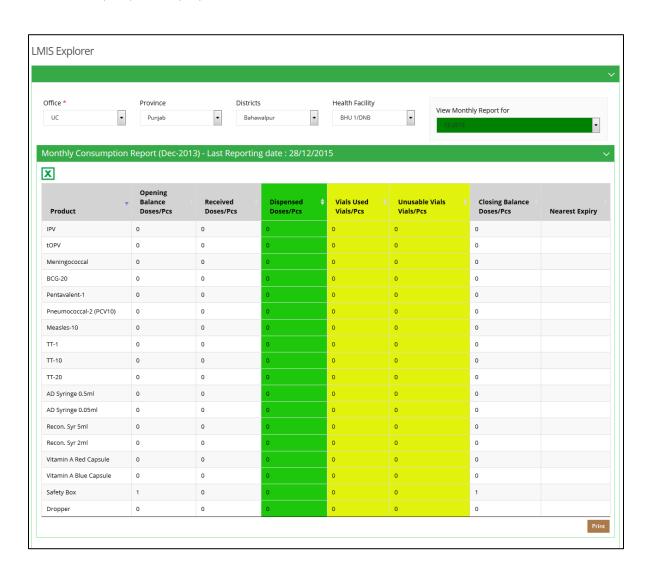
If **UC** is selected in the **Office** drop-down list, the **Province** dropdown is displayed for selecting the Province. On selecting the Province, the **District** drop-down will be displayed for selecting the District. The **Health Facility** drop-down displays for selecting the required health facility within the selected district, as shown in the image below:



4. In **View Monthly Consumption Report for:** drop-down list, select the Month and Year for which you want to view the report.



The Monthly Report displays:



You can change the selections in the filter as required to view Monthly Report for any other location or time period.

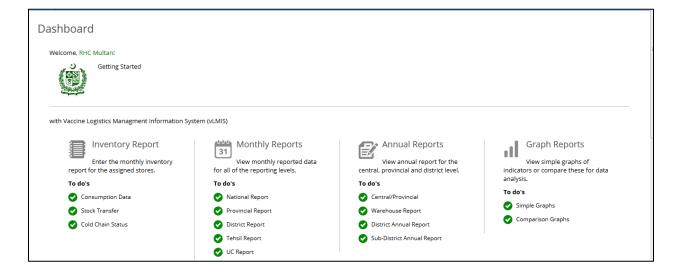
Consumption User – Union Council

in Vaccine Logistics Management Information System

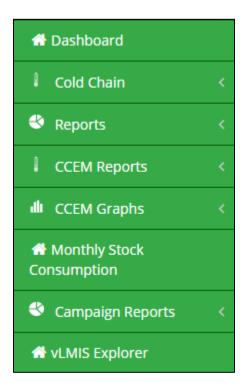
This section explains the overview of the EPI Users (UC) and describes the tasks need to be performed using Vaccine Logistics Management Information System.

Consumption User - UC Level

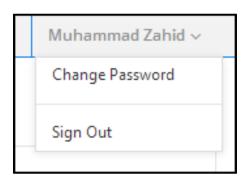
Logging in to the UC User account displays the account's Home page screen by default.



On the left side of the dashboard screen, the EPI user will see the following tabs:



User can sign out of the application by using the following link on the right side of the screen.



UC User screen includes the following features:

- Dashboard: User can view dashboards containing graphs, maps and analytical reports by using this tab.
- Cold Chain: enables the account user to report the cold chain asset's status of the assigned stores, which helps identify the working condition of the cold-chain machine.
- **Reports**: user can view the data analysis reports for data analysis. Refer to the "Reports" section for details.
- CCEM Reports: user can view the data analysis reports for cold chain equipment. Refer to the "CCEM Reports" section for details.
- CCEM Graphs: user can view CCEM graphs for analyzing data. Refer to the "CCEM Graphs" section for details.
- Monthly Stock Consumption: Tehsil users can collect data from the assigned stores during the month and then compiles and calculates it to add it to the monthly inventory report.
- Campaign Reports: user can also view analytical reports for the campaigns being conducted. Refer to the "Campaign Reports" section for details.
- **vLMIS Explorer**: user can also view the previously submitted Monthly Report data for the selected store and the specified month year.

Monthly Stock Consumption

Monthly stock consumption is an important indicator that is calculated manually during the month. The EPI Tehsil store/ Cluster Lead operator collects data from the assigned UCs/EPI Centers during the month and then compiles and calculates it to add it to the monthly consumption report.

Tehsil / Cluster Lead operator will enter data in vLMIS according to the individually defined EPI Centers. Data can be entered for each month on or after the 1st date of the next month. Data entry operators can edit data for the last entered month for that store / facility.

Vaccine Consumption Data Entry Fields for Operators

The following 4 main data entry sections are included in the vaccine consumption data entry:

System is showing month, year, district, tehsil and UC along-with the reporting EPI Center name. The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:

Month	March	Year	2014			
District	Bahawalpur	Taluka	Yazman			
UC	1/DNB	EPI Center	BHU 1/DNB			
Outreach Vaccination Session						
Planned Actually Held						
0						

For Sindh users, following screen will be displayed:

Month	February	Year	2016	
District	Qambar	Taluka	Qambar BHU Ghatahar	
UC	BER	EPI Center		
Fixed Vaccina	tions Sessions	Outreach Vaccination Session		
Planned	Actually Held	Planned	Actually Held	
0	0	0	0	

Add the monthly targets in the following fields:

Monthly Targets:

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:

MONTHLY TARGETS				
Total Population of UC	0			
Pregnant Women	0			
Children Live Birth	0			
Surviving Children (0-11 M)	0			
Children Aged (12-23 M)	0			

For Sindh users, following screen will be displayed:

MONTHLY TARGETS			
CBAs	0		
Pregnant Women	0		
Children Live Birth	0		
Surviving Children (0-11 M)	0		
Children Aged (12-23 M)	0		
2 year and Above	0		

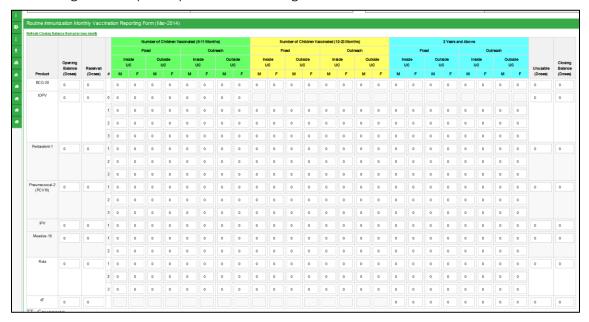
- Total Population of UC
- Pregnant Women
- Live Birth (For BCG)
- Surviving Children (0-11 M)
- Children Aged (12-23 M)

Routine Immunization:

Perform data entry for vaccines. Enter data in the following fields:

- Opening Balance (Doses)
- Received (Doses)
- Number of Children Vaccinated (0-11 Months)
 - o Fixed number of children vaccinated inside/outside UC (Males and Females)
 - o Outreach number of children vaccinated inside/outside UC (Males and Females)
- Number of Children Vaccinated (12-23 Months)
 - o Fixed number of children vaccinated inside/outside UC (Males and Females)

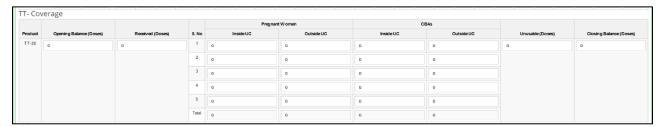
- o Outreach number of children vaccinated inside/outside UC (Males and Females)
- 2 Years and Above
 - o Fixed number of children vaccinated inside/outside UC (Males and Females)
 - o Outreach number of children vaccinated inside/outside UC (Males and Females)
- Unusable (Doses): Enter the number of unusable vaccine in doses
- Closing Balance (Doses): Enter the closing balance in doses.



TT Coverage:

Enter the TT Coverage data in the following fields:

- Opening Balance (Doses)
- Received (Doses)
- Pregnant Women (Vaccinated Inside/Outside UC)
- CBAs (Vaccinated Inside/Outside UC)
- Closing Balance (Doses)
- Unusable (Doses)



Other Items:

Perform data entry for other items and enter data in the following fields:

- Opening Balance (No)
- Received (No)
- Dispensed (No)
- Closing Balance (No)

Other Items						
Product	Opening Balance (No)	Received (No)	Dispensed (No)	Closing Balance (No)		
DIL-BCG-20	0	0	0	0		
DIL-Measles-10	5	0	0	0		
AD Syringe 0.5ml	129	0	0	0		
AD Syringe 0.05ml	0	0	0	0		
Recon. Syr 5ml	13	0	0	0		
Recon. Syr 2ml	0	0	0	0		
Safety Box	1	0	0	0		
Ice Packs(0.5)	32			32		
loe Packs(0.9)	8			8		
Vaccine Carriers-Cold Boxes(Carrier)	2			2		
Vaccine Carriers-Cold Boxes(Rotary International)	16			16		
Stabilizers(Unknown)	1			1		

Click on the "Save" button to save the consumption reporting data. User can also go back to the main Monthly Consumption screen by clicking "Go back to main" button.

To add the monthly stock consumption report:

- 5. Sign in to the Tehsil User account.
 User Home page displays.
- From the left menu, click Monthly Stock Consumption.
 The Monthly Consumption page displays.
- 7. The reports for the previous and the current month in the tehsil will be displayed.
- 8. Click the month for which you want to view or update report from the **Reporting**Months column.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



The below screen will be displayed to Sindh Users:



Update Consumption Report

To update the monthly consumption report, user can select the report from the reporting month column.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:

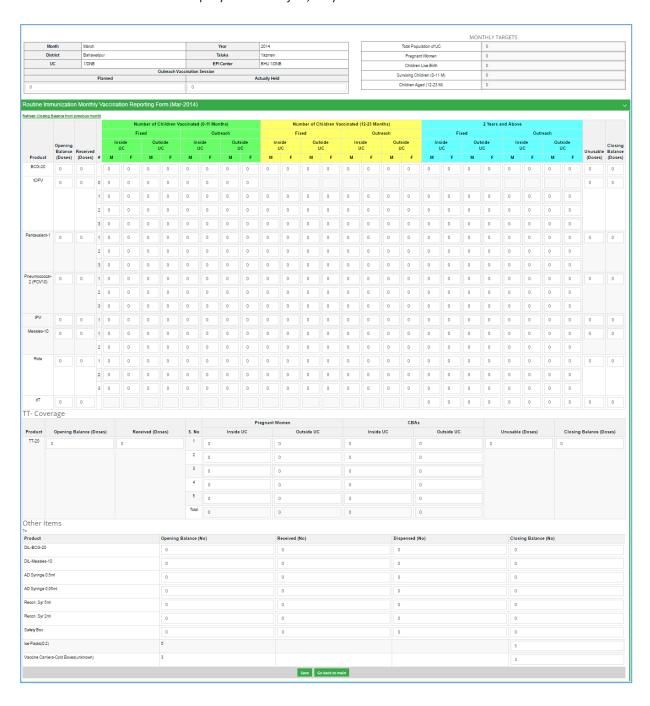


The below screen will be displayed to Sindh Users:



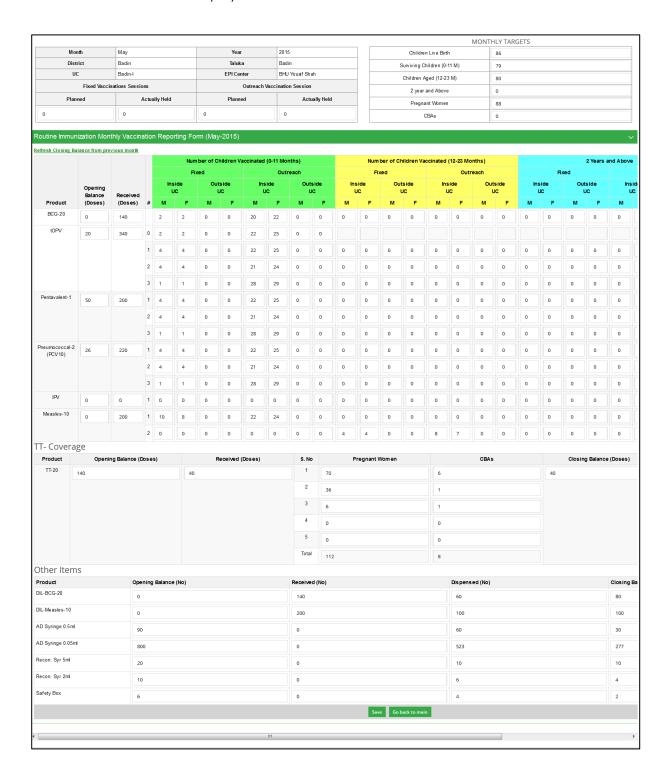
An editable report from the selected month will be displayed.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



Edit the report as required and click Save.

The below screen will be displayed to Sindh Users:

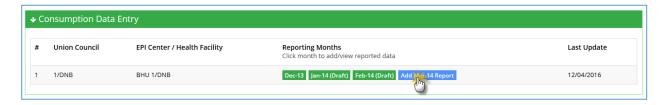


Edit the report as required and click Save.

View Consumption Report

Data entry operator in the tehsil and UC can also update data of any previous month in the list. To view the monthly consumption report, user can select the report from the reporting month column.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users

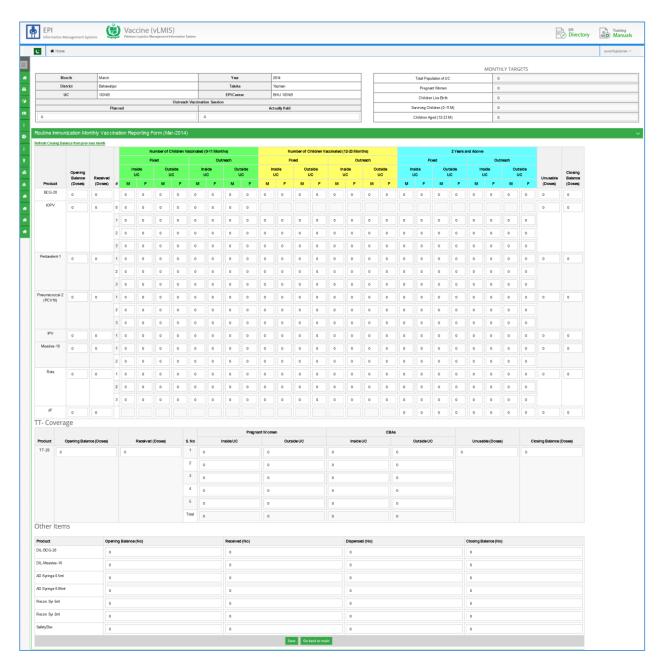


The below screen will be displayed to Sindh Users:

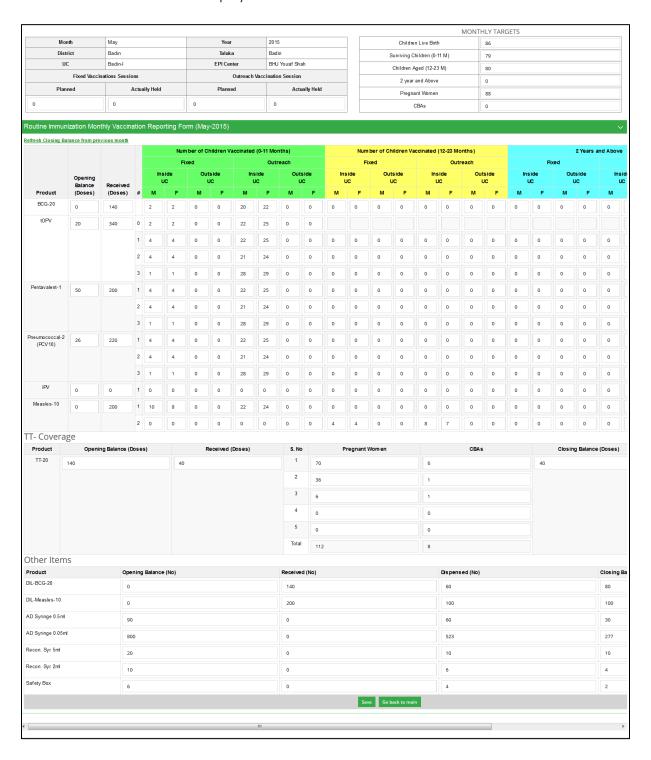


The report for the selected month will be displayed.

The below screen will be displayed to Punjab, Khyber Pakhtunkhwa and Balochistan Users:



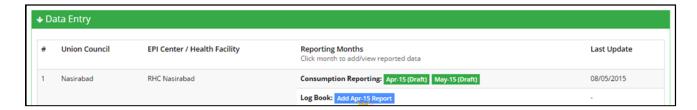
The below screen will be displayed to Sindh Users:



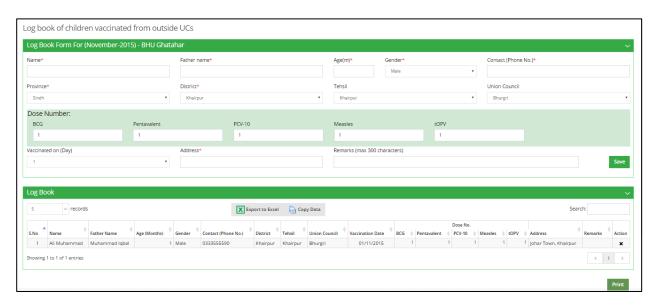
Log Book

Sindh Data entry operator in the tehsil/taluka and UC can also update data in log book. To view the Log Book form, user click the Log Book and add the report of a selected month.

The user can click the month tab in the Log Book row as shown below:



Log book of children vaccinated from outside UCs will be displayed.



The elements of the screen are as following:

- S. No: shows the serial numbers from 1 to 10 for children vaccinated from outside UCs.
- Name: enter the name of the child.
- Father Name: enter the name of the child's father.
- Age: enter the age of the child
- Contact: enter the contact number.
- Address: enter the address.
- District: select the district from the list.
- Union Council: select the union council from the list.
- Date of Vaccination: select the date of vaccination.

- Dose No.: enter the number of dose for the following:
 - BCG 20
 - Penta 1
 - o PCV10
 - Measles 10
 - o bOPV 20
- Remarks: enter remarks if any.

Click "Save".

Cold Chain Status Update

The user can update working status of cold chain asset every month.

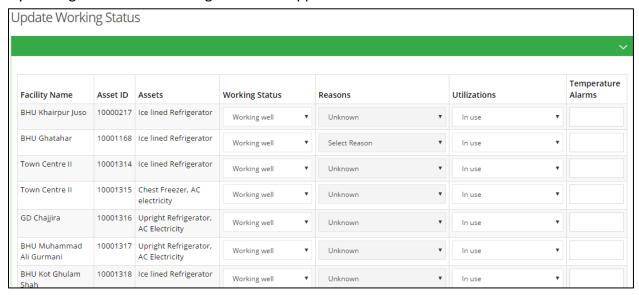
The cold chain status can be updated by clicking the **Cold chain Status Update** tab as shown below:



User can select the month as shown below:



By clicking the month following screen will appear:



The User can update the following:

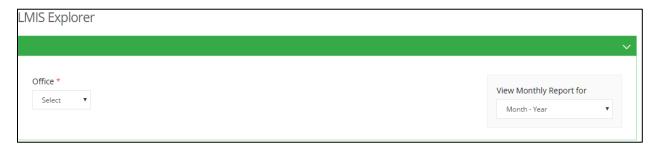
- Working Status: select the status of the cold chain asset from the list.
- **Reasons:** select the reasons from the drop down menu.
- Utilization: select the utilization of the asset
- Temperature Alarms: enter the quantities of temperature alarms

• Click "Update"

vLMIS Explorer

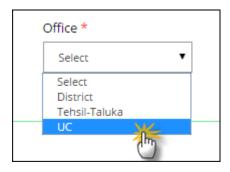
The LMIS explorer enables you to view the previously submitted Monthly Report data for the selected store and the specified month - year.

Click **vLMIS Explorer** in the side-bar to open the vLMIS Explorer:



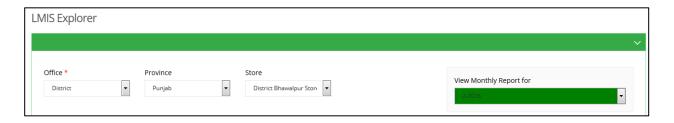
To view the Monthly Report data using vLMIS Explorer:

5. In LMIS Explorer page, click **Office** drop-down list:



District

If **District** is selected in the **Office** drop-down list, the **Province** and **Store** dropdown is displayed for the selection, as shown in the image below:



Tehsil - Taluka

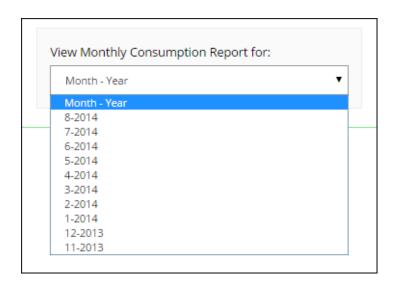
If **Tehsil - Taluka** is selected in the **Office** drop-down list, the **Province** dropdown is displayed for selecting the Province. On selecting the Province, the **District** drop-down is displayed for selecting the district. On selecting the District, **Store** drop-down displays for selecting the required store.



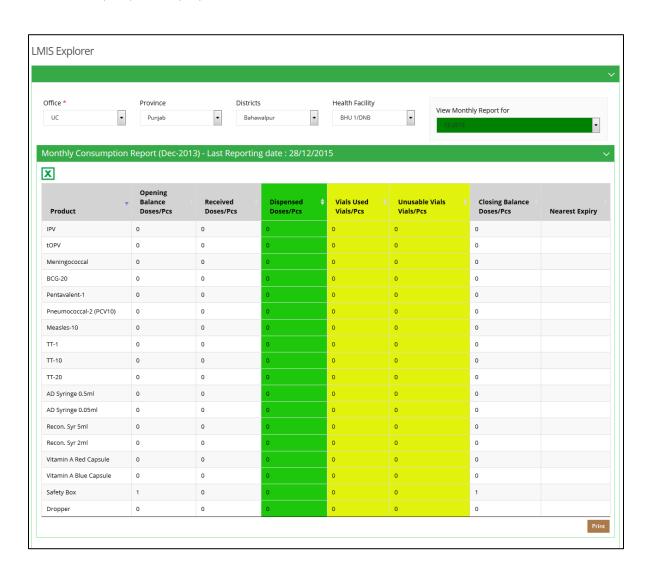
If **UC** is selected in the **Office** drop-down list, the **Province** dropdown is displayed for selecting the Province. On selecting the Province, the **District** drop-down will be displayed for selecting the District. The **Health Facility** drop-down displays for selecting the required health facility within the selected district, as shown in the image below:



6. In **View Monthly Consumption Report for:** drop-down list, select the Month and Year for which you want to view the report.



The Monthly Report displays:



You can change the selections in the filter as required to view Monthly Report for any other location or time period.

6

Cold Chain

of Vaccines Logistics Management Information System

This section explains the overview of the cold-chain logistics and its importance in the Logistics Management Information System.

Cold Chain Logistics

The Expanded Program on Immunization (EPI) was launched in 1978 in Pakistan to reduce death, disease, and disability due to vaccine preventable diseases (VPDs), and to contribute to the strengthening of national health systems. EPI services are provided through the public health delivery network through fixed centers and outreach services.

Improving routine immunization is one of the key indicators of EPI for ensuring a reduction in childhood mortality in Pakistan. However, improving routine immunization remains a major challenge in Pakistan. Many children are being needlessly affected by measles and other vaccine preventable diseases despite the availability of safe and effective vaccines, one of the factors being that there is inadequate capacity to <u>manage vaccine cold chain effectively</u>. A huge part of vaccines is <u>wasted or expired</u> due to ineffective cold chain during the supply chain process, therefore in June 2013, the USAID in collaboration with Expanded Program on Immunization (EPI) stakeholders, UNINCEF and WHO collaborated to review the performance of vaccine and cold chain logistics management and supply chain systems and decided that it was essential to integrate vaccine logistics into an online system, possibly extending the existing Pakistan Webbased LMIS to include a Vaccine and a Cold Chain Logistics module.

The requirements of the vaccine and cold chain logistics management system were discussed and all stakeholders worked to define a common vision for the enhancement of the Web-based LMIS for vaccines. Based on their review, stakeholders endorsed the Web-based LMIS in Pakistan (supported by the USAID) as a model for a new vLMIS that would be accessible through a web portal, provide transparency to all stakeholders based on user rights, is easy to use, enables reporting via mobile devices (SMS), and integrates both routine and campaign vaccine logistics data. Standardized reporting forms were also recommended, along with more timely review and tracking reporting rates and timeliness. Data triangulation is recommended to validate data and improve visibility in wastage rates. One important recommendation was that the resupply quantities for routine EPI should be calculated based on average monthly consumption and stock balances, and that wastage rates should be calculated automatically if feasible. Finally, there was a consensus that timely budget release, appropriate training, improved monitoring and supervision, and adequate IT support were vital to improving vaccine logistics data collection, management, and use.

This report was presented to the Ministry of National Health Services, Regulation and Coordination, includes the findings of the assessment, as well as the recommended high-level functional and system requirements for extending the Web-based LMIS to include a vaccine logistics management information system (vLMIS) module.

Why is Cold Chain Logistics important?

Cold chain logistics refer to the system of people, policies, procedures, vehicles, fuel, equipment, and technologies that work together to make sure that vaccines given to people are safe and effective. Because most vaccines have specific temperature requirements, the cold chain logistics management system would prevent both excessive heat and cold from damaging the vaccines from the time of manufacturing until they are used. The refrigerated movement of temperature sensitive vaccines, pharmaceuticals and medical supplies is vital for the shelf life of vaccine drugs relies heavily on controlled and uncompromised transfer of shipments.

An effective logistics system is incomplete without a well-maintained cold chain for safe and effective immunization service delivery. An improperly functioning cold chain can lead to wasted vaccines, missed opportunities to immunize due to lack of vaccines, and children receiving vaccines that do not protect them as intended or that actually make them sick.

Insufficient, outdated and broken cold chain equipment are often cited as major problems affecting routine immunization efforts during country immunization program reviews and supervisory visits. Additional problems are lack of technically-trained staff and inadequate financing for procuring new equipment and transporting technicians and/or broken equipment.

Outdated equipment is still in use and often needed as back-up due to delays in providing new equipment, insufficient stock capacity (both permanent and temporary, if the equipment is being used for immunization campaigns), or occasional problems with new equipment (e.g. lack of spare parts or appropriate tools).

There is often a lack of field-based procurement and repair plans, which means that cold chain and logistics inventories are not sufficiently linked with new equipment projections. This makes it difficult for countries to prioritize districts and provinces with the greatest need for new equipment.

Environmental factors

Poor or unreliable energy sources, a common problem in developing countries, weaken the effectiveness of equipment and shorten its lifespan. Also, equipment in remote areas is difficult to reach with timely repairs and routine maintenance, which are necessary to avoid more costly repairs or replacement.

The Expanded Program on Immunization emphasizes monitoring vaccine stocks and temperatures at all levels of storage, distribution and administration in order to avoid or reduce wastage.

Monitoring tools include vaccine vial monitors and freeze watch indicators. In addition, electronic temperature data loggers have been introduced at the regional level to 1) monitor the

transportation of freeze-sensitive vaccines and 2) randomly study the storage temperatures of some refrigerators over a defined period of time.

There is inadequate capacity to manage cold chain effectively.

Cold Chain Module in vLMIS

The National Vaccine Management Committee (NVMC) requested USAID to support enhancing the existing web-LMIS to include a module for managing vaccine and cold chain data. This new module will be referred to as the vaccine logistics management information system (vLMIS).

The reason for developing an online cold chain module is the lack of cold chain data. Despite the heavy investment by development partners and the GOP, no credible information and inventory systems exist at the municipal Union Council (UC), district, provincial, nor even federal levels.

Logistics management information system (LMIS) data for vaccines below the national level is mainly paper-based and therefore largely inaccessible to vertical program managers. The data currently originates from forms filled at the health facilities and is only partially turned into accessible digital information in Excel spreadsheets at either district or provincial levels.

The limited information for vertical program managers and district administrations is manually aggregated through the districts and/or provinces. It is sometimes estimated and often incomplete. This hinders the ability of managers to procure the right quantities and effectively oversee supply chain performance.

Currently, UNICEF is supporting a national cold chain inventory that will collect data on existing cold chain equipment (age, type, capacity, operability) as well as facility profile data. This will help identify gaps in the cold chain storage capacity and functionality that need to be addressed.

However, there are significant challenges in the collection, use and management of cold chain since Wastage (due to open vial) data are under-reported and poorly tracked.

Key data requirements were also agreed, emphasizing simplicity and minimal data for the initial version of the vLMIS (with suggestions for future additions) and mandating use of stock balance, consumption and issues data, losses and adjustments as the essential data items to collect. New

routine reporting forms will be developed to collect this data from service delivery points, along with vaccine logistics standard operating procedures (SOPs) for each level of the supply chain. Data will be entered at either the Union Council level (if Internet access is available) or at the district level, and the vLMIS will also include a warehouse management system module for inventory management at the district, provincial, and national EPI stores. The vLMIS will also receive periodic SMS reports from vaccinators (more frequent than monthly, but period is yet to be determined) that include consumption, wastage, and balance. These data will be used to validate the monthly reports from service delivery points. The system will enable continued use of the existing SOPs and forms for polio campaigns, but the inventory data from stores will be integrated and vaccinators will report via SMS daily during the campaigns.

The design, construction and testing of the vLMIS is expected to be completed by December 2013, and will be deployed for a pilot phase to the polio endemic districts first before national rollout. A vLMIS Project Charter will be developed and approved by the NVMC to ensure adequate stakeholder engagement and commitment to the vLMIS, to document project parameters and deliverables, and to establish project management and governance structures.

Cold Chain Storage

Currently, there is a well-established network of cold stores at each level down to the district (except in Azad Jammu and Kashmir, and Gilgit-Baltistan). At the national level, cold and bulk storage is sufficient for all commodities, but not at provincial, district, or sub-district and UC level. Punjab has upgraded cold chain equipment provided by USAID in 2013, and Khyber Pakhtunkhwa has started upgrading its cold store. Good storage conditions are maintained at federal level, while conditions vary from province to province and district to district. Cold chain equipment is maintained at all levels (with a few exceptions at district & UC levels) and cold chain failures are dealt with timely and appropriately at the provincial level, with some delays at district & sub district level. There are some personnel trained in and capable of providing cold chain maintenance.

Cold & bulk storage space is inadequate at provincial (except in Punjab), district, and SDP levels, and the cold rooms at both national and provincial levels are not purpose built for maximum operational and energy efficiency, as they now rely on multiple smaller cold rooms that vent heat into the bulk storage area. Interruption of electricity supply is common place and there is a lack of power back up at all levels. The quality of cold chain equipment at district & sub-district levels is not optimal, and many lack voltage stabilizers. There is a shortage of trained and qualified cold chain technicians to service all EPI stores and equipment in a timely manner.

Recommendations

The cold chain system needs to be upgraded at all levels, with particular attention to provincial level and below. Design standards that emphasize operational and energy efficiency should be developed for national, provincial, and district cold stores so that investments in upgrades contribute to optimize storage procedures, reduced energy consumption and cost containment. Upgrades must also include back up power systems; if generators are included, adequate long-term budget support is required for fuel. At lower levels, solar ice liners refrigerators (ILRs) should be based on the newest sustainable technology (solar chill) for areas with high incidence of power interruptions. Any new equipment investment must also include training for technical staff on maintaining and repairing new technology, and additional technical staff should be trained and posted at both provincial and district level to meet demand. Where possible, purpose built vehicles for the maintenance and repair of cold chain equipment should be procured and stocked with spare parts to improve efficiency of available technical staff.

Cold chain module should include the following features so that the capacity of National Immunization Programs is strengthened and every individual can benefit from vaccines of assured quality delivered in the right amount at the right time through efficient logistics, proper vaccine management, and a well-functioning cold chain system. The proposed requirements are:

- 1. Management information system capable of collecting cold chain asset data, its capacity and working status so that adequate numbers of vaccines are stored for every immunization session.
- Cold chain asset status is provided on monthly basis so that vaccine wastage is minimized
 without affecting coverage and new vaccine introduction is not constrained by lack of
 storage/transport capacity.
- 3. Cold chain inventory control system to ensure proper management and distribution of cold chain supplies.
- 4. Storage and Stores to have adequate capacity of cold chain assets to ensure vaccine shelf life.
- 5. Tracked distribution of cold chain assets to stores so that Vaccines are stored and transported without temperature damage.

Cold Chain Equipment Management (CCEM)

A vaccine's cold chain is a temperature-controlled supply chain. It is essential for the effectiveness of the vaccines that an unbroken cold chain with uninterrupted series of storage and distribution activities are maintained for the given temperature range. In vLMIS, users can provide the Coldchain assets information containing its capacity and working status for each month in order to record the cold-chain maintenance data.

In vLMIS, CCEM operators at the National, Provincial and District level will be able to perform following four activities:

- Add an Asset
- Search an Asset
- Transfer an Asset
- Update Asset Working Status

Introduction to Cold chain Assets

In vLMIS, cold-chain assets can be divided into two main categories:

- 1. Registered (Non-quantifiable Assets)
- 2. Non-Registered (Quantifiable Assets)

Registered assets are those assets which are not added with mentioned quantity. Non-registered assets on the other hand, will consist of a defined quantity.

Currently, there are seven types of cold-chain assets in the vLMIS. All these assets fall into the above mentioned categories.

Registered Assets

- 1. Refrigerators
- 2. Cold Room
- 3. Generator
- 4. Transport

Non-Registered Assets

- 5. Vaccine Carriers
- 6. Ice Pack
- 7. Voltage Regulator

Among the registered assets, refrigerators and cold rooms consist of temperature alarms to ensure that the set temperature levels are achieved for vaccines. Generator and transport do not require temperature regulation.

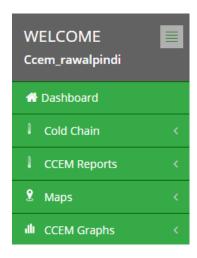
CCEM Operator

It is essential for the effectiveness of the vaccines that an unbroken cold chain with an uninterrupted series of storage and distribution activities is maintained for the given temperature range.

Logging in to the User account displays the account's Home page screen by default.



On the left side of the dashboard screen, the CCEM operator at the district level will see the following tabs:



The CCEM District level operator screen includes the following features:

- Dashboard: User can view CCEM dashboard containing graphs, maps and analytical reports by using this tab.
- CCEM: enables the account user to report the cold chain asset's status of the assigned stores, which helps identify the working condition of the cold-chain machine.
- CCEM Reports: user can view the data analysis reports for cold chain equipment. Refer to the "CCEM Reports" section for details.
- CCEM Graphs: user can view CCEM graphs for analyzing data. Refer to the "CCEM Graphs" section for details.
- Maps: enables user to view the geographical map for Cold-chain capacity.

Dashboard

Dashboard is a visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance.

For CCEM users, dashboard for cold chain equipment management will be available. User can view the dashboard at the district level.

Cold Chain Equipment Management

Cold Chain Equipment Management dashboard allows users to view the cold chain capacity map by clicking on this tab.

Cold Chain Capacity

This map shows a map highlighting the cold chain capacity of each district.

• Vaccine storage capacity at +2c to +8c

To show the storage capacity of vaccines at certain temperature range within selected health facilities.

• Vaccine storage capacity at +20c

To show the storage capacity of vaccines at 20 degrees centigrade within selected health facilities.

• Icepack freezing capacity against routine requirements

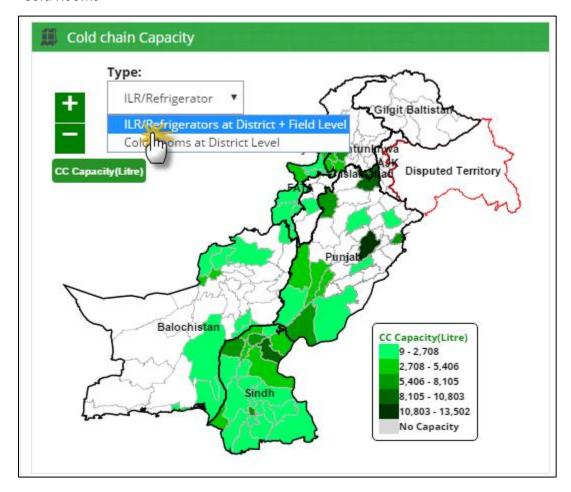
To show the icepack freezing capacity within selected health facilities.

Cold Chain Capacity

Cold Chain Capacity will be displayed through map.

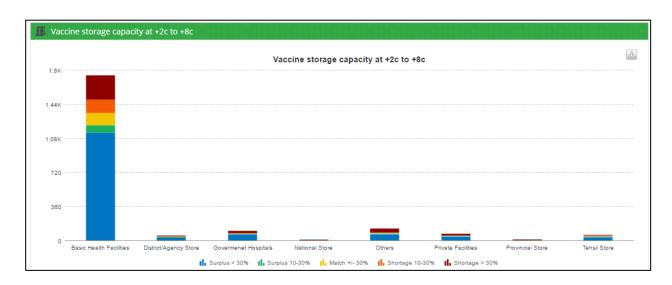
The user can choose product from the drop-down menu.

- ILR/Refrigerators
- Cold Rooms



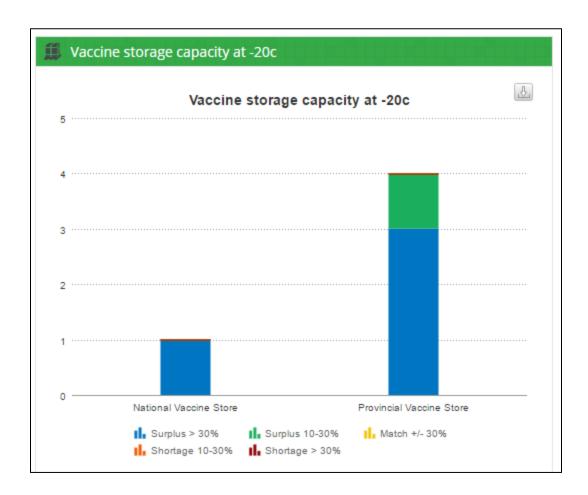
Vaccine Storage Capacity at +2c to +8c

Vaccine Storage Capacity at +2c to +8c will be displayed in the form of a stacked bar graph. The user can view the health facilities list on the horizontal axis while the capacity range is shown on the vertical axis.



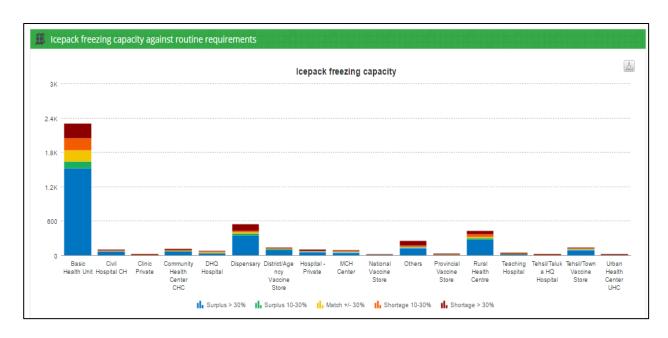
Vaccine Storage Capacity at - 20c

Vaccine Storage Capacity at - 20c will be displayed in the form of a stacked bar graph. The user can view the health facilities list on the horizontal axis while the capacity range is shown on the vertical axis.



Icepack freezing capacity against routine requirements

Cold chain equipment management dashboard will also display icepack freezing capacity graph against routine requirements in the form of a bar graph. The users can view the health facilities list on the horizontal axis while the capacity range is shown on the vertical axis.



Cold Chain

Click Cold Chain from the main menu to display a list of options.



Add Refrigerator

To add a new refrigerator:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Refrigerator.

New/Add Refrigerator/Freezer/ILR Asset Page displays.

3. Specify the following filters:

• Asset ID/Equipment Code: is an automatically generated unique identifier for the

adjustment.

• Source of Supply: select the supplier source from the list.

Utilization: select the utilization of the asset.

Working Status: select the status of the Asset from the list.

Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

o Office: In this drop-down, select the office to which you want to issue the

asset. On selecting the Office level, specify the office location in the adjacent

drop-down list. On selecting the location, the Issue To drop-down displays

the relevant store names in the selected province. Select the required store.

Catalogue ID: select the Catalogue ID from the list. You can also add a new

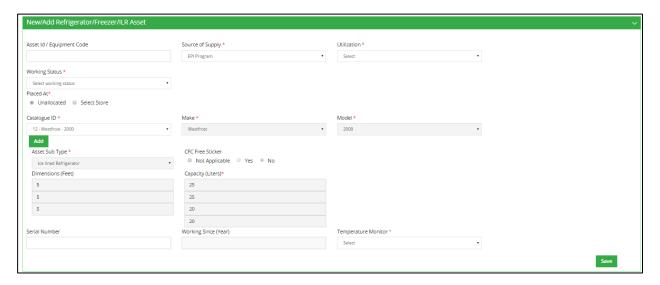
catalogue ID by clicking Add. It will display a new window with following options:

o Catalogue ID: specify the Catalogue ID.

o Make: specify the make of the asset being added.

278

- Model: specify the model of the asset being added.
- Asset Sub-Type: Select asset sub-type from the list.
- O Dimensions: Add the dimensions of the asset in feet.
- o Capacity: Add the capacity of the asset in liters.
- o **CFC Free Sticker:** select one of the options from Not Applicable, Yes and No.
- Serial No.: Enter the asset's serial number.
- Working Since (Year): Enter the year since the working of the asset.



4. Click **Save** to save the new asset.

Search Refrigerator

To search a refrigerator:

- Sign in to the User account.
 User Home Page displays.
- Under CCEM, click Search Refrigerator.
 Search Refrigerator/Freezer/ILR Asset Page displays.
- 3. Specify the following filters:

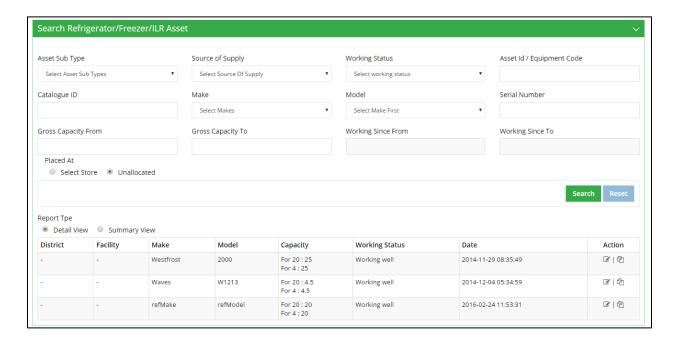
- Asset Sub-Type: Select asset sub-type from the list.
- Source of Supply: select the supplier source from the list.
- Working Status: select the status of the Asset from the list.
- Asset ID/Equipment Code: is an automatically generated unique identifier for the adjustment.
- Catalogue ID: specify the Catalogue ID.
- Make: specify the make of the asset being added.
- Model: specify the model of the asset being added.
- Serial No.: Enter the asset's serial number.
- Gross Capacity From: Add the gross capacity of the asset in liters.
- Gross Capacity to: Add the gross capacity of the asset in liters.
- Working From: Enter the year since the working of the asset.
- Working To: Enter the year till the optimal working of the asset.
- **CFC Free Sticker:** select one of the options from Not Applicable, Yes and No.
- Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

- Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.
- Working Since (Year): Enter the year since the working of the asset.

4. Click Search.



5. **Report Type:** select the report type such as summary view or detail view.

Add Vaccine Carriers

To add a new vaccine carrier:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Vaccine Carriers.

Add Vaccine Carriers Page displays.

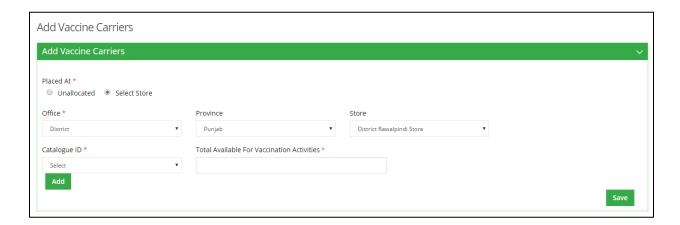
3. Specify the following filters:

Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

- Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.
- Catalogue ID: select the Catalogue ID from the list. You can also add a new catalogue ID by clicking Add. It will display a new window with following options:
 - o Catalogue ID: specify the Catalogue ID.
 - o Make: specify the make of the asset being added.
 - o Model: specify the model of the asset being added.
 - O Dimensions: Add the dimensions of the asset in feet.
- 4. Add Total Available for Vaccination Activities and click Save.



Search Vaccine Carriers

To search a vaccine carrier:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Search Vaccine Carriers.

Vaccine Carrier Search Page displays.

3. Specify the following filters:

a. Catalogue ID: specify the Catalogue ID.

b. Make: specify the make of the asset being added.

c. Model: specify the model of the asset being added.

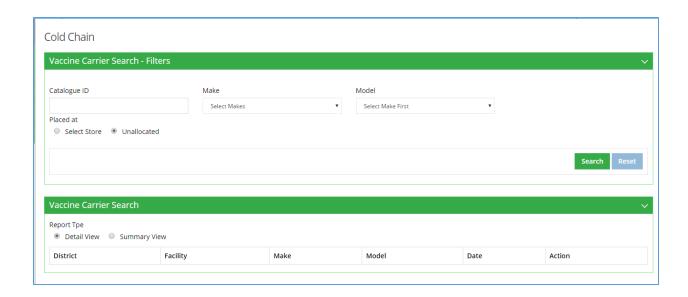
d. **Placed at**: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.

4. Click Search.



5. **Report Type:** select the report type such as summary view or detail view.

Add Ice Packs

To add ice packs:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Ice Packs.

Add Ice Packs Page displays.

3. Specify the following filters:

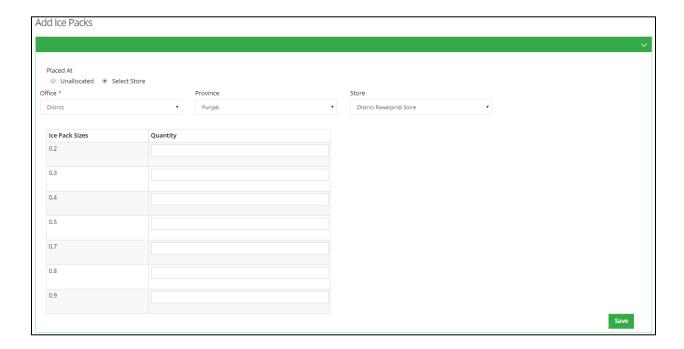
• Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.

- 4. Add **Quantity** before the ice pack size required to be added.
- 5. Click **Add.**



Search Ice Pack

To search an ice pack:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Search Ice Pack.

Ice Pack Search Page displays.

3. Specify the following filters:

a. Make: specify the make of the asset being added.

b. Model: specify the model of the asset being added.

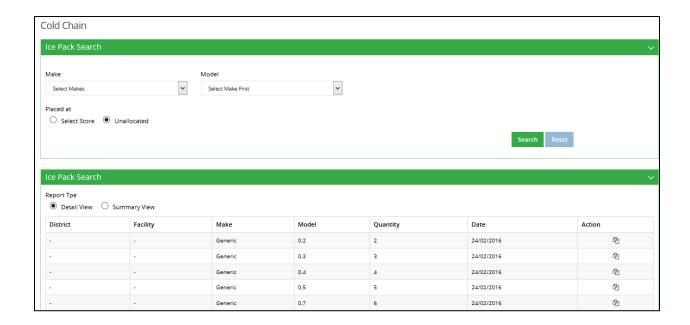
c. **Placed at**: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.

4. Click Search.



5. **Report Type:** select the report type such as summary view or detail view.

Add Cold Room

To add a cold room:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Cold Room.

Add Cold Room Page displays.

3. Specify the following filters:

Asset ID/Equipment Code: is an automatically generated unique identifier for the

asset.

Source of Supply: select the supplier source from the list.

Utilization: select the utilization of the cold room.

• Working Status: select the status of the cold room from the list.

Placed at: Specify one of the following:

Unallocated: specifies that the cold room is not allocated.

Select Store: select the store to place the cold room.

o Office: In this drop-down, select the office to which you want to issue the

asset. On selecting the Office level, specify the office location in the adjacent

drop-down list. On selecting the location, the Issue To drop-down displays

the relevant store names in the selected province. Select the required store.

Type: select the type of the cold room.

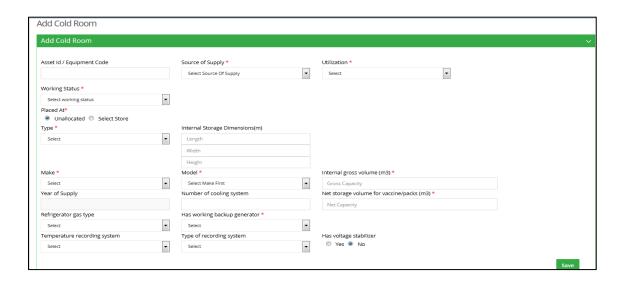
Internal Storage Dimensions: specify the storage dimensions of the cold room such

as length, width and height.

o Make: specify the make of the cold room being added.

o **Model:** specify the model of the asset being added.

- o Internal gross volume: specify in meters.
- Net storage volume for vaccine/packs: specify the volume in meters.
- o Year of Supply: specify the year of supply for the cold room.
- o **Number of cooling system:** specify the number of cooling systems in the cold room.
- o **Number of phases:** select the number of phases.
- o **Refrigerator gas type:** select the type of refrigerator gas.
- o Specify if there is a Voltage Stabilizer or not.
- o Specify if the cold room has working backup generator.
- Temperature recording system: select the temperature recording system from the list.
- o **Type of recording system:** select the type of recording system.



4. Click **Save** to save the new cold room.

A new cold room would be added.

Search Cold Room

To search a cold room:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Search Cold Room.

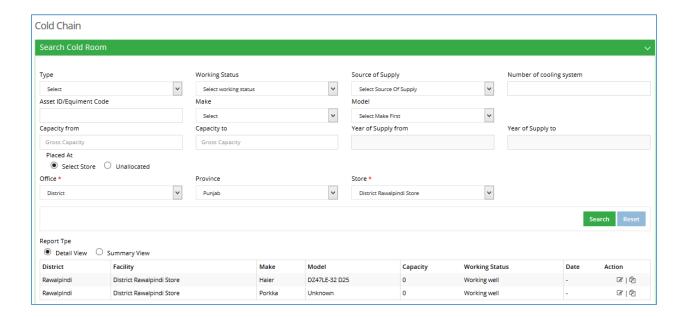
Cold Room Search Page displays.

- 3. Specify the following filters:
 - o **Type:** select the type of the cold room.
 - Working Status: select the status of the cold room from the list.
 - o **Source of Supply:** select the supplier source from the list.
 - Number of cooling system: specify the number of cooling systems in the cold room.
 - Asset ID/Equipment Code: is an automatically generated unique identifier for the asset.
 - o Specify if there is a **Voltage Stabilizer** or not.
 - o Make: specify the make of the cold room being added.
 - o **Model:** specify the model of the asset being added.
 - o **Capacity From, Capacity to:** Add the capacity of the cold room.
 - o **Year of Supply From, to:** specify the year of supply for the cold room.
 - o **Placed at**: Specify one of the following:

Unallocated: specifies that the cold room is not allocated.

Select Store: select the store to place the cold room.

- Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.
- 4. Click Search.



5. **Report Type:** select the report type such as summary view or detail view.

Add Voltage Regulator

To add a voltage regulator:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Voltage Regulator.

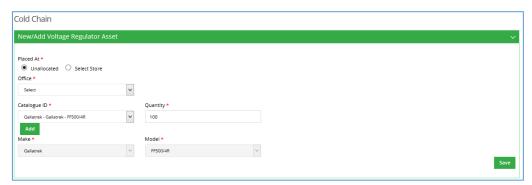
Add Voltage Regulator Page displays.

- 3. Specify the following filters:
 - Placed at: Specify one of the following:

Unallocated: specifies that the voltage regulator is not allocated.

Select Store: select the store to place the regulator.

- Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.
- 4. Catalogue ID: specify the Catalogue ID.
- 5. Add **Quantity** before the ice pack size required to be added.
- 6. Click Add.



7. User can also search a specific regulator from the list.

Search Voltage Regulator

To search a voltage regulator:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Search Voltage Regulator.

Search Voltage Regulator Page displays.

3. Catalogue ID: specify the Catalogue ID.

4. **Make:** specify the make of the voltage regulator.

5. **Model:** specify the model of the voltage regulator.

6. Specify the following filters:

Placed at: Specify one of the following:

Unallocated: specifies that the voltage regulator is not allocated.

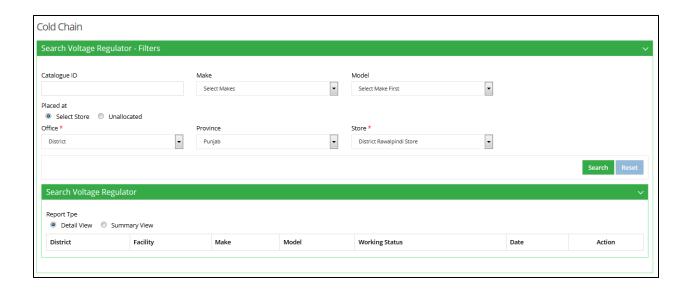
Select Store: select the store to place the regulator.

Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.

7. Catalogue ID: specify the Catalogue ID.

8. Add **Quantity** before the ice pack size required to be added.

9. Click Search.



10. Report Type: select the report type such as summary view or detail view.

Add Generator

To add a new generator:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Generator.

Add Generator Page displays.

3. Specify the following filters:

• Asset ID/Equipment Code: is an automatically generated unique identifier for the

adjustment.

Source of Supply: select the supplier source from the list.

Utilization: select the utilization of the asset.

• Working Status: select the status of the Asset from the list.

Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

o Office: In this drop-down, select the office to which you want to issue the

asset. On selecting the **Office** level, specify the office location in the adjacent

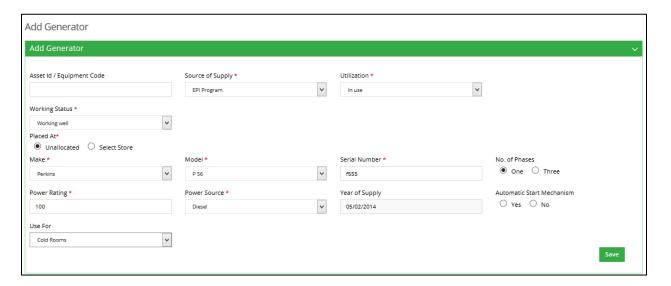
drop-down list. On selecting the location, the Issue To drop-down displays

the relevant store names in the selected province. Select the required store.

Make: specify the make of the asset being added.

Model: specify the model of the asset being added.

- **Serial No**.: Enter the asset's serial number.
- Number of phases: select the number of phases.
- **Power Rating:** Enter the power rating of the generator.
- **Power Source:** Select the power source of the generator.
- Specify if the generator has an **Automatic Start Mechanism** or not.
- Year of Supply: specify the year of supply for the generator.
- Use for: select the use for the generator.



4. Click **Save** to save the new generator.

Search Generator

To search a generator:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Search Generator.

Search Generator Page displays.

3. Specify the following filters:

Working Status: select the status of the Asset from the list.

• Source of Supply: select the supplier source from the list.

Asset ID/Equipment Code: is an automatically generated unique identifier for the

adjustment.

Make: specify the make of the asset being added.

Model: specify the model of the asset being added.

• Year of Supply from, to: specify the year of supply for the generator.

Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

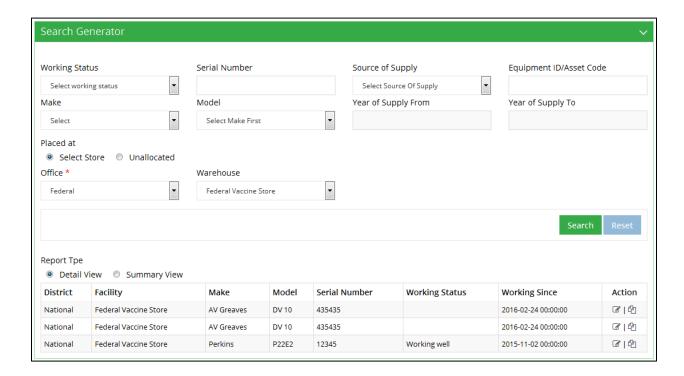
o Office: In this drop-down, select the office to which you want to issue the

asset. On selecting the Office level, specify the office location in the adjacent

drop-down list. On selecting the location, the Issue To drop-down displays

the relevant store names in the selected province. Select the required store.

4. Click Search.



5. **Report Type:** select the report type such as summary view or detail view.

Add Transport

To add a new transport:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Add Transport.

Add Transport Page displays.

3. Specify the following filters:

• Asset ID/Equipment Code: is an automatically generated unique identifier for the

transport.

• Source of Supply: select the supplier source from the list.

Utilization: select the utilization of the.

• Working Status: select the status of the transport from the list.

Placed at: Specify one of the following:

Unallocated: specifies that the transport is not allocated.

Select Store: select the store to place the transport.

o Office: In this drop-down, select the office to which you want to issue the

asset. On selecting the **Office** level, specify the office location in the adjacent

drop-down list. On selecting the location, the Issue To drop-down displays

the relevant store names in the selected province. Select the required store.

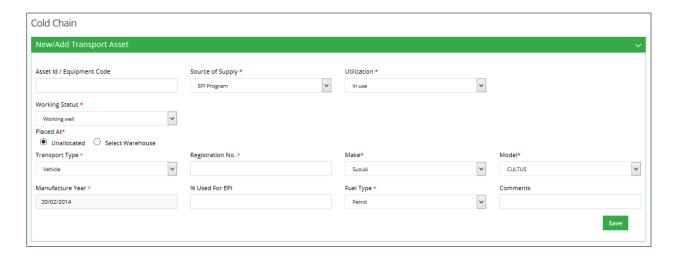
• Transport Type: select the transport type.

• Registration No.: specify the registration number. This field is optional.

Make: specify the make of the transport being added.

• Model: specify the model of the transport being added.

- Manufacture Year: select the manufacture year of the transport.
- % use for EPI: specify the percent use for EPI. This is an optional field.
- Fuel Type: select the fuel type being used.



4. Click **Save** to save the new transport.

Search Transport

To search a transport:

1. Sign in to the User account.

User Home Page displays.

2. Under CCEM, click Search Transport.

Search Transport Page displays.

3. Specify the following filters:

• Transport Type: select the transport type.

• Working Status: select the status of the Asset from the list.

• Source of Supply: select the supplier source from the list.

• Fuel Type: select the fuel type being used.

• Registration No.: specify the registration number. This field is optional.

Make: specify the make of the asset being added.

• Model: specify the model of the asset being added.

• Manufacture Year from, to: specify the year of manufacture for the transport.

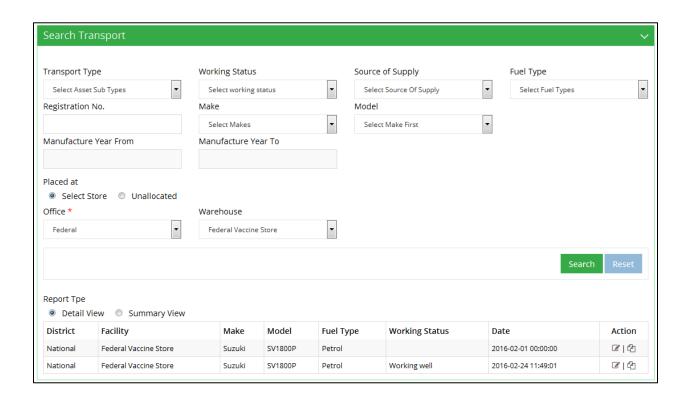
Placed at: Specify one of the following:

Unallocated: specifies that the asset is not allocated.

Select Store: select the store to place the asset.

Office: In this drop-down, select the office to which you want to issue the asset. On selecting the Office level, specify the office location in the adjacent drop-down list. On selecting the location, the Issue To drop-down displays the relevant store names in the selected province. Select the required store.

4. Click Search.



5. **Report Type:** select the report type such as summary view or detail view.

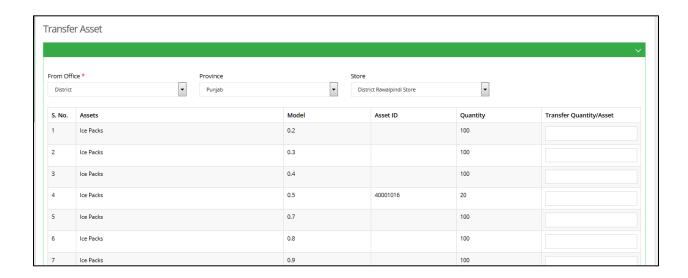
Transfer Asset

To transfer an Asset:

- Sign in to the User account.
 The User Home Page displays.
- Click Transfer Asset under CCEM.
 The Transfer Asset page displays.
- 3. In **From Office**, select the office.

Office: In this drop-down, select the office. On selecting the **Office** level, specify the office location in the adjacent drop-down list. On selecting the location, the drop-down displays the relevant store names in the selected province. Select the required store.

The Asset's details are displayed.



4. In **Transfer Quantity/Asset,** specify the quantity you want to transfer.

S. No.	Assets	Model	Asset ID	Quantity	Transfer Quantity/Asset
1	Vaccine Carriers-Cold Boxes	Rotary International	201838	5243	3000

5. In **To Office,** specify the location that you want to transfer to.



6. Click **Transfer**.

Maps

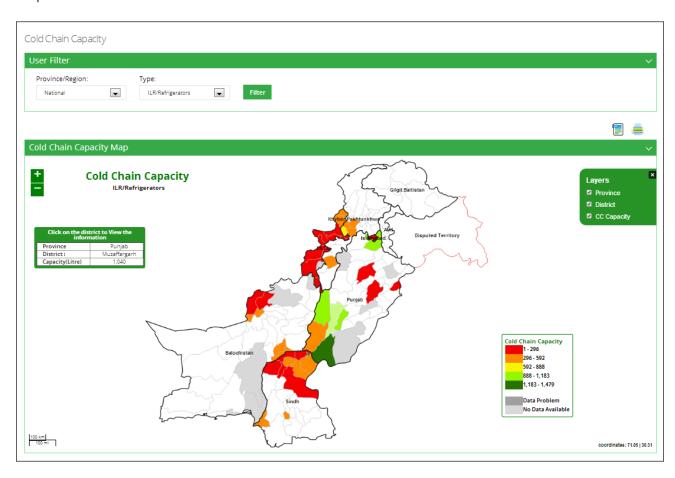
The LMIS also has the capability of generating easy to interpret maps with color codes. These interactive maps would be made available through the Government of Pakistan website and help in increasing the use of the existing information disseminates by Government of Pakistan through the web-based vLMIS by providing the information a more captivating approach to both promote the importance of supply chain and use of data in decision making.

This application is helpful for the health managers at all levels of administrative tiers for planning, identification of possible supply chain problems and new areas of improvements. In addition, GIS dashboards combined with other reports and graphs of vLMIS application give quick overview of monthly situation of commodities and reporting status. This is a good epidemiological tool to combine outputs of web-mapping application with other sources for data for research activities.

CCEM operators can view cold-chain capacity map by using the Maps tab from the main menu. Once the cold-chain indicator for which the map is to be viewed is selected, the user will be directed towards a page to select from various filters.

Cold Chain Capacity Map

This map shows the cold-chain capacity of each district within the selected province. User can see filter options such as Province/Region and Type of refrigerators or cold rooms to analyze the cold chain capacity rate for each district in the selected province based on the number of facilities in that district. The detailed information can be seen once the user clicks a particular district on the map.



CCEM Reports

Refer to the "CCEM Reports" section of the user manual.

CCEM Graphs

Refer to the "CCEM Graphs" section of the user manual.

7

Campaigns

of Vaccines Logistics Management Information System

This section explains the overview of the Campaign User and describes the tasks to be performed using Vaccine Logistics Management Information System.

Campaigns

Supplemental Immunization Activities (SIAs) commonly known as Campaigns against Poliomyelitis or Polio. In the early 20th century, polio was one of the most feared diseases in industrialized countries, paralyzing thousands of children every year. Soon after the introduction of effective vaccines in the 1950s and 1960s, however, polio was brought under control and practically eliminated as a public health problem in these developed countries.

Deriving strength from the experience gained in the developed countries, the World Health Assembly adopted a resolution in 1988, voicing firm resolve of the nations to eradicate polio from the globe through a world-wide Polio Eradication Initiative (PEI). Although the resolution was cosponsored by Pakistan, PEI could not be launched in the country owing to scarcity of resources. However, PEI assumed top priority in public health in Pakistan in the aftermath of a massive outbreak of polio in 1993 which crippled thousands of children and resulted in the death of hundreds of them.

Since then, Supplemental Immunization Activities (SIAs) known as National Immunization Days (NIDs), Sub-national Immunization Days (SNIDs), Short Interval Additional Doses (SIADs), Outbreak Response and Mop-ups are being conducted in the light of the evolving epidemiologic situation in

various parts of Pakistan. PEI has to continue till the goal of polio eradication is achieved and Pakistan joins the club of Polio Free Countries.

It is pertinent to mention that, at present, Pakistan is one of the three countries of the world which are polio-endemic. The other two countries are Afghanistan and Nigeria.

Vaccines are administrated to women and children in two type of Immunization Programs, Routine and Campaigns. The campaigns are different from routine Immunization. In routine people come to the health facility for immunization while in campaigns, temporary EPI teams, visit door to door and immunize the children to coupe any diseases outbreak. Normally in Pakistan, Polio (Poliomyelitis) and Measles Vaccines administration campaigns are present throughout the year.

Campaign Stock and Reporting Cycle

In Current scenario, the FDI cells arrange vaccine from supplier to supply vaccines to country vaccine supply chain i.e. from FDI store to provincial to district EPI store, where it is provided to

each Union Council (UC) Teams Incharge. Vaccines are supplier to teams through UC In-charge on daily basis. Team provided coverage reports to UC In-charge, who sends data to district control rooms, where data is entered into WHO made MS Access based software "SDMS". A file from SDMS is exported and send to Provincial Control Rooms, where file is imported into SDMS provincial copy.

Provincial Control Rooms Reporting Flow Campaigns Team Federal EPI Cell MNHRC Federal Control Rooms i.e WHO, Prime Minister etc. Suppliers/Agents Federal EPI Store Provincial EPI Store

Campaign Enhancements

In Release-1 of the application, campaigns figures were added on monthly aggregation basis such as routine immunization. However, in Release-2, campaigns are introduced as separate module

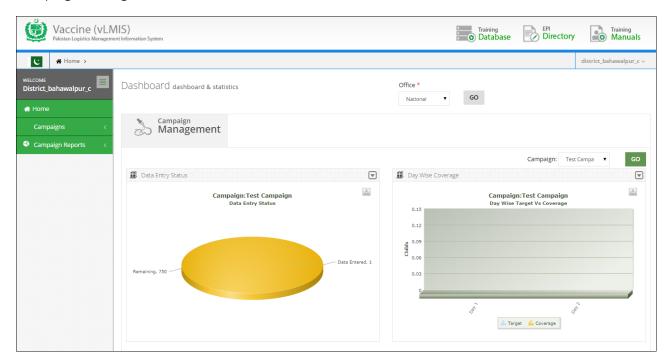
instead of enhancement in consumption reporting module. It is due to the users of campaigns module are different as compared to consumption module.

The scope of this module is limited to the following features in campaigns management:

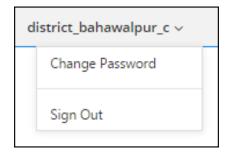
- Addition of new campaigns, dates, vaccines and other attributes
- Setting up the population targets for each campaign
- Manage Readiness of campaigns at UC and districts levels
- Data Entry at Districts Control rooms for Campaign days and Catch up days
- Monitoring tool Lot Quality Assurance Sampling (LQAS) data entry
- Monitoring reports at Federal, provincial and districts levels
- Data export for external analysis tools

Campaign User

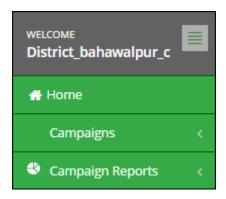
Logging in to the District Campaign user account displays the account's Home page screen with Campaign Management dashboard.



User can sign out of the application by using the following link on the right side of the screen.



On the left side of the dashboard screen, the campaign user will see the following tabs:



The district campaign user screen includes the following features:

- Campaign Dashboard: The homepage of District Campaign user shows campaigns dashboard.
- Campaigns: enables the user to perform data entry for the campaigns at the district level.
- Campaign Reports: enables the provincial user to view campaign reports.

Campaign Options

Users can perform various activities regarding data entry and adding campaign readiness at district as well as UC level. System provides a separate module for immunization campaigns all over the country. This module will contain data entry of each campaign.

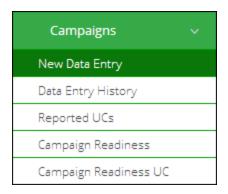
User can perform the following:

- New Data Entry: Users can perform data entry in the system using this link.
- Data Entry History: Users can view the data entry history at UC level by using this link.
- Reported UCs: Users can view a list of reported UCs and reporting rate by using this link.
- Campaign Readiness: Users can view, add and edit campaign readiness for each district by using this link.
- Campaign Readiness UC: Users can view, add and edit campaign readiness for each UC by using this link.

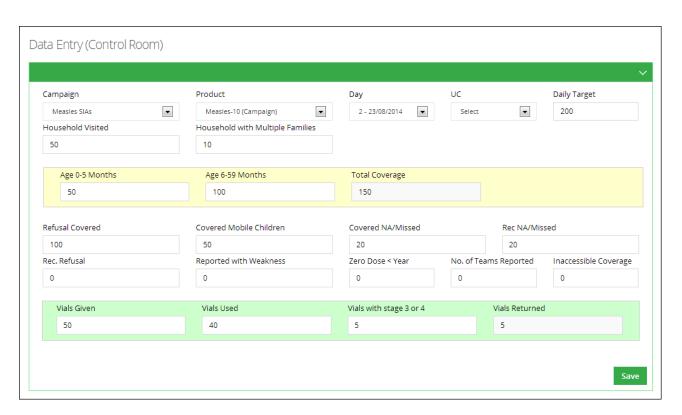
New Data Entry

Users can add campaign data for each UC based on the number of campaign days.

Click Campaigns from the main menu and select New Data Entry.



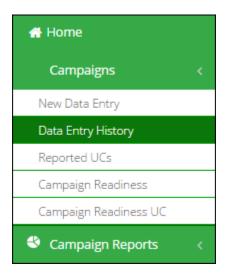
New Data Entry screen displays. Enter data in the required fields.



Click **Save** to save the added data.

Data Entry History

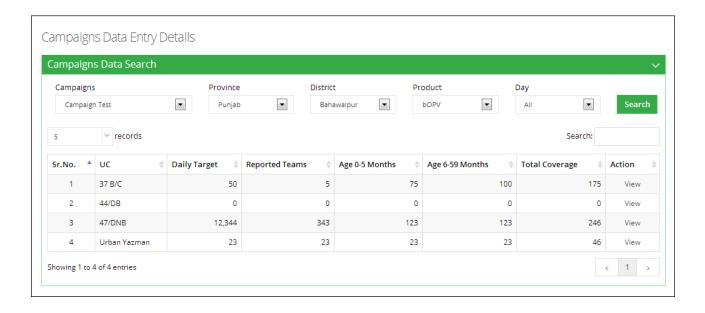
With the help of Data Entry History tab, the users can search the data entry history of different campaigns. By using search filters, the users can narrow down the data entry history for each day of the campaign.



Users can select the following filters:

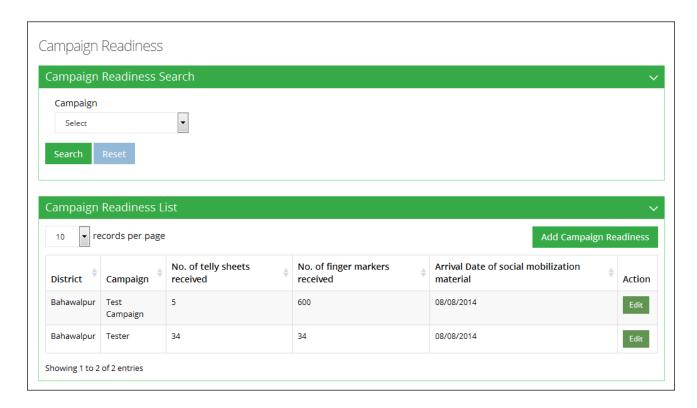
- Campaigns: displays the list of campaigns.
- **Province:** displays the list of provinces where the selected campaign is being conducted.
- **District:** displays the list of districts where the selected campaign is being conducted.
- **Product:** displays the product for which the campaign is being conducted.
- Day: Select one particular day from the list in which the campaign is being conducted.

Click **Search** to show the desired results as shown below. You can also search within the displayed records.



Campaign Readiness

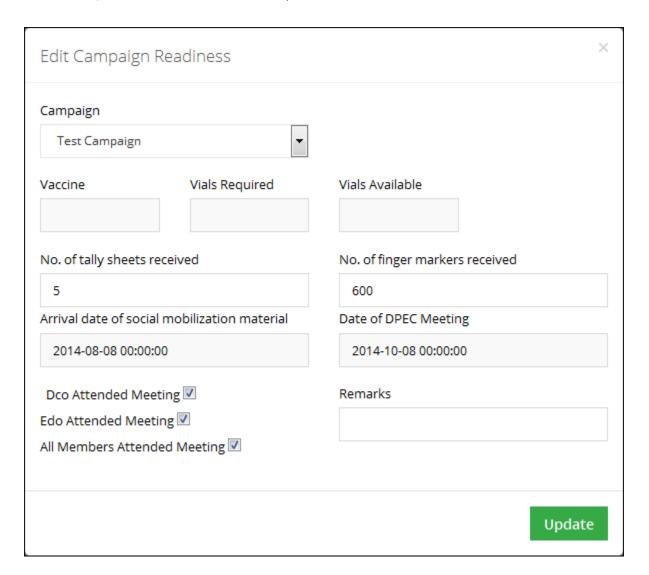
By using Campaign Readiness Search, the users can search the targeted campaign from the list of campaigns. User can enter the status of different indicators of a campaign at District level. By using these indicators, the National user will make decision on the readiness of a campaign.



Edit Campaign Readiness

By using Edit Campaign Readiness, the users can edit/update campaign readiness data, e.g. the vaccine, required vials, number of tally sheets received, number of finger markers received.

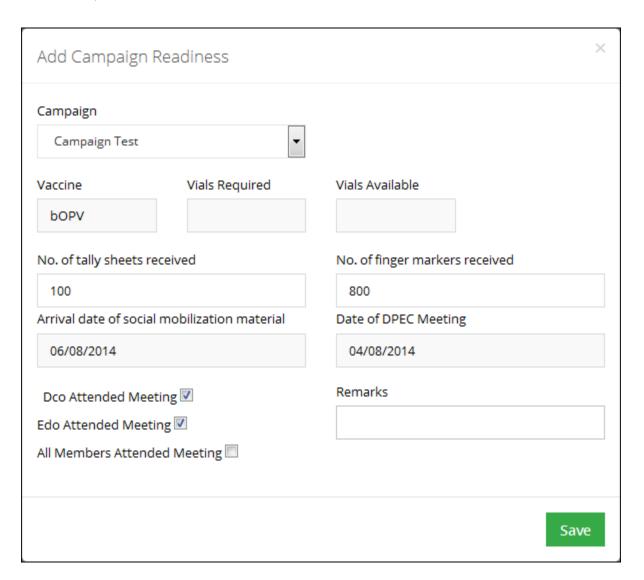
Edit the required information and click Update.



Add Campaign Readiness

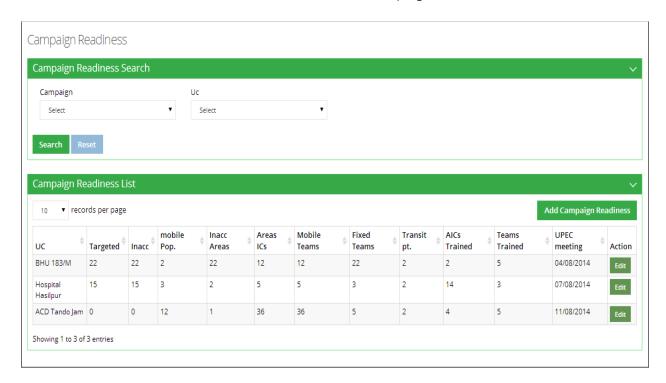
With the help of Add Campaign Readiness tab, the user can enter the status of different indicators of a campaign at District level.

Add the required details and click Save.



Campaign Readiness UC

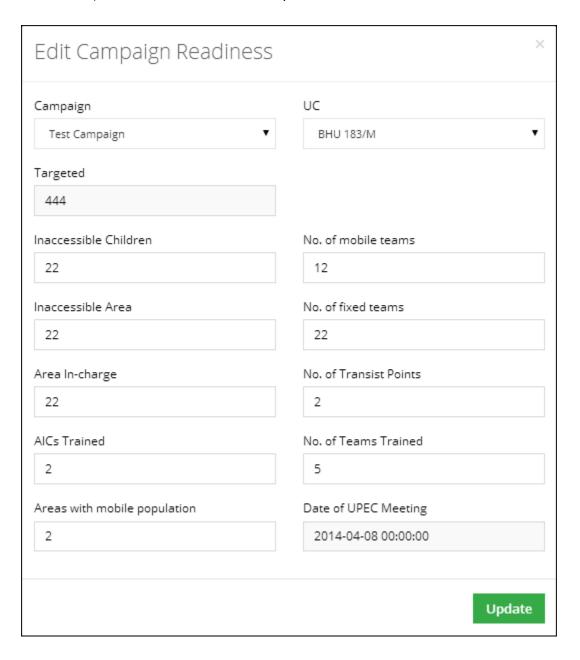
The Users can enter readiness of campaign data at UC level by using Campaign Readiness UC tab. By using Campaign Readiness UC Search, the users can search the targeted campaign from the list of campaigns by selecting the campaign and the required UC. By using these indicators, the National user will make decision on the readiness of a campaign.



Edit Campaign Readiness

By using Edit Campaign Readiness, the users can edit/update campaign readiness data, e.g. the vaccine, required vials, number of tally sheets received, number of finger markers received.

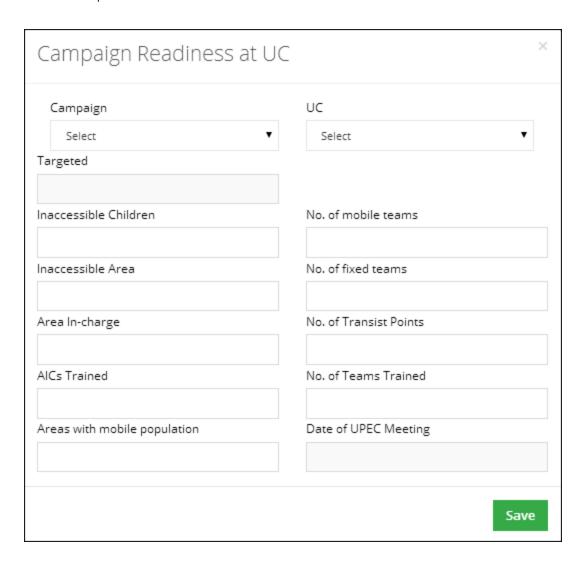
Edit the required information and click **Update**.



Add Campaign Readiness

With the help of Add Campaign Readiness tab, the user can enter the status of different indicators of a campaign at District level.

Add the required information and click Save.

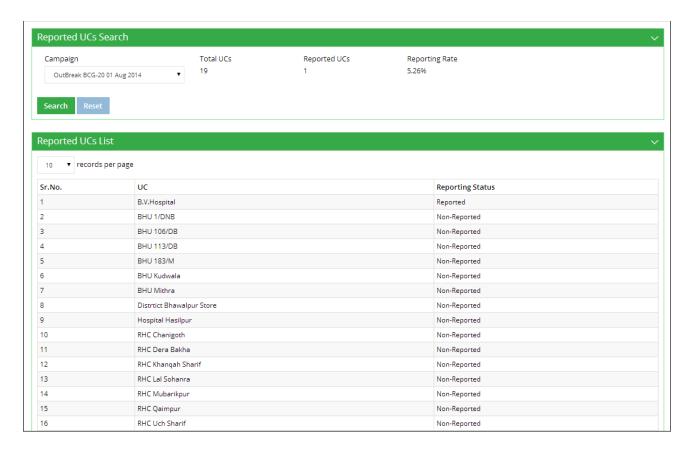


Reported UCs

The users need to report per day consumption of particular campaign in a district and the reporting status of these districts can be viewed in Reported UCs tab.

Select the campaign and click Search.

Reported UCs for the selected campaign will be displayed in the list along-with the reporting status.



Campaign Reports

Users can also view the campaign reports from the Campaigns main-menu.

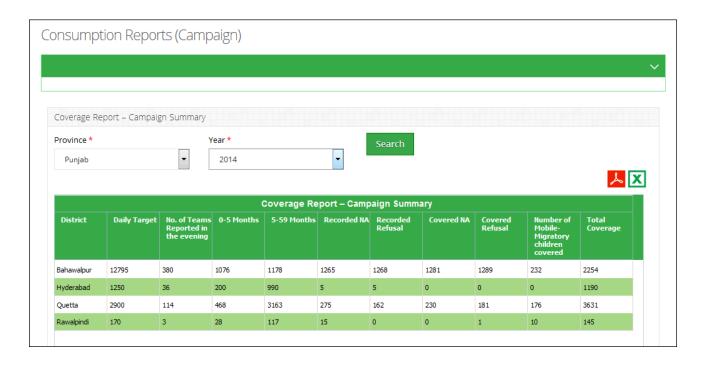


Campaigns Summary (Coverage)

This report helps user to get list of all campaigns in a summary form. The list can be generated on all parameters required for adding a campaign.

Select **Province** and the **Year** for which you want to view report.

A list of districts for the selected province will be displayed along-with the analytical report for the data.

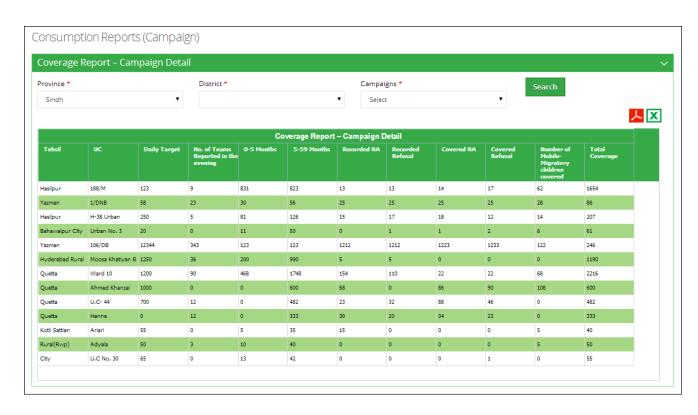


Campaigns Detail (Coverage)

This report helps user to get list of all campaigns in detailed form. The list can be generated on all parameters required for adding a campaign.

Select **Province**, **District** and the **Campaigns** for with you want to view the report.

A list of tehsils for the selected district will be displayed along-with the analytical report for the data for each tehsil.



Catch-Up

It is a monitoring report to find how much this campaign has been effective on the tehsil level.

Select **Province**, **District** and the **Campaigns** for with you want to view the report.

A list of tehsils for the selected district will be displayed along-with the analytical report for the data for each tehsil.





USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management