सत्यमेव जयते

Ministry of Health & Family Welfare
Government of India

IQIP

IMMUNIZATION DATA QUALITY IMPROVEMENT PROGRAMME

User Manual

ITSU
IMMUNIZATION TECHNICAL SUPPORT UNIT
Ministry of Health & Family Welfare

IMMUNIZATION DIVISION | MINISTRY OF HEALTH & FAMILY WELFARE | GOVERNMENT OF INDIA

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन

आरोग्यं सुखसम्पदा

World Health Organization

unicef

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ABBREVIATIONS

AEFI	Adverse Event Following Immunization
CSV	Comma Separated Value
FAQ	Frequently Asked Question
FIC	Full Immunization Coverage
GOI	Government of India
HMIS	Health Management Information System
IMI	Intensified Mission Indradhanush
iQIP	Immunization Data Quality Improvement Programme
ITSU	Immunization Technical Support Unit
M&E	Monitoring & Evaluation
MCTS	Mother and Child Tracking System
MCV	Measles Containing Vaccine
MOHFW	Ministry of Health & Family Welfare
NPSP	National Polio Surveillance Project
RCH	Reproductive and Child Health
UIP	Universal Immunization Programme
UNICEF	United Nation Children's Fund
URL	Uniform Resource Locator
UTs	Union Territories
WHO	World Health Organization

EXECUTIVE SUMMARY

The Ministry of Health and Family Welfare, Government of India launched the Health Management Information System (HMIS) web portal in October, 2008 which enables capturing of public health data from both public and private institutions in rural and urban areas across the country. The immunization related data available in the HMIS portal and with the immunization partners (WHO, UNICEF) are manually compiled and feedback are shared by MoHFW with the states for needful action.

Due to the intensive effort and time required in creating manual reports, analytics and dashboards and these are subject to errors, a web-based application, namely Immunization data quality improvement programme (iQIP) has been developed which is featured with advanced data visualization and analytical platform for the available immunization data sources.

This tool will create insight with the opportunity to facilitate evidence-based planning. It focuses on making the Immunization data available in a standardized, easily-accessible, structured, comparable, manageable and analytical manner, by drawing information from already available and credible data sources, in the form of dashboards.

The system has been developed by ITSU in close consultation with MoHFW in terms of data-structure, design and content to promote ownership and sustainability of the system. The tool also aims to support the national/state/district level user to analyze their immunization data and take corrective measures.

Purpose of the manual

This user manual is designed to be a quick-and-easy, user-friendly reference for the development of Immunization data quality improvement programme (iQIP) tool. It serves as a primer on the development and provides a general overview of the background and purpose, as well as the key features and step by step guide on the various modules available in the tool. The information is presented in a concise, direct-to-the point, easy-reading, and outline format.

Intended Users of the Manual

This Manual was designed with the following key officials/ personnel in mind:

- Officials of MoHFW and immunization partners at the national level who are involved in monitoring of immunization related data and providing feedback at various level and using data for decision making.
- Public health officials and immunization partners at the state and district level who are actively involved in collection, collation and utilization of immunization related data
- Managers and staff of various vertical programs responsible for the information system of their respective programs

WHAT IS iQIP?

1. WHAT IS iQIP?

1.1 Background and purpose of the tool

The Universal Immunization Programme of the Government of India (UIP) aims to achieve full immunization of all target-age children and pregnant women in India, through state-and district-specific delivery of vaccines. The Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) with its Multi-Year Strategic Plan for immunization aims to accelerate progress in achieving 90% full immunization (FIC) coverage. All the immunization related services including antenatal coverage, immunization coverage, delivery services, family planning coverage etc. are reported in Health Management Information System (HMIS), which is an online portal for reporting by all the public health facilities in the country.

The HMIS web portal launched by the MoHFW on 21st October, 2008 to enable capturing of public health data from both public and private institutions in rural and urban areas across the country. The portal is envisaged as a "Single Window" for all public health data for the MoHFW. The MoHFW initially rolled out the HMIS up to the district Level and, from 2011 onwards, this has been expanded to allow the Sub District/Block level facility wise data entry. Currently, over 704 districts are reporting their monthly performance on a regular basis in HMIS portal

Immunization Technical Support Unit (ITSU), the strategic arm of Ministry of Health and Family Welfare (MoHFW) works towards strengthening the Universal Immunization Programme and prepares monthly immunization dashboards after downloading and analysing the relevant data excel sheets from Health Management Information System (HMIS) portal, Reproductive and Child Health (RCH) Portal, AEFI secretariat, UNICEF communication indicators and WHO-NPSP concurrent monitoring data. Monitoring and Evaluation team (M&E) at ITSU manually compiles data and uses excel macros to generate various spreadsheets (dashboard) that are shared with the MOHFW to provide the state level indicators, which is then analysed and the feedback is shared with the states for needful action. The state specific feedback is being shared with the states for performance improvement. The HMIS portal provides data which are then manually collated as reports and spreadsheets and are analyzed and reviewed to aid decision making.

The state/district also download HMIS report at their level and then analyse it using MS Office which is a cumbersome and time-consuming process. As this process is manual, it requires more human intervention and sometime leads to errors too. The reports are sometimes overwhelming and spreadsheets are difficult to understand, and cumbersome to interpret.

To reduce the effort in creating manual reports, analytics and dashboards which are labor intensive, time consuming and subjected to errors; to produce an analytics and dashboard more meaningful to the sub district level users, and to support monitoring of key indicators related to immunization till the sub district level, ITSU has developed a web-based application with an advanced data visualization and analytical platform for the available immunization data source (i.e., HMIS data). The Immunization data quality improvement programme (iQIP) tool is web-based visualization and monitoring tool which is aimed to support the national/state/district level user to analyze their immunization data and take corrective measures.

1.2 Key Features of IQIP

The iQIP tool aims to facilitate evidence-based planning by making the Immunization data available in a standardized, easily-accessible, structured, comparable, manageable and analytical manner, by drawing information from already available and credible data sources, in the form of dashboards.

This application focuses on creating advanced data visualization and analytical platform for users at multiple levels for all the necessary indicators related to immunization through various data sources. The application also supports generating relevant reports in standard formats on a real time basis which will serve as a meaningful aid for effective decision making. The application also assists in improving data quality, data enhancement for all level for making the right data driven decisions.

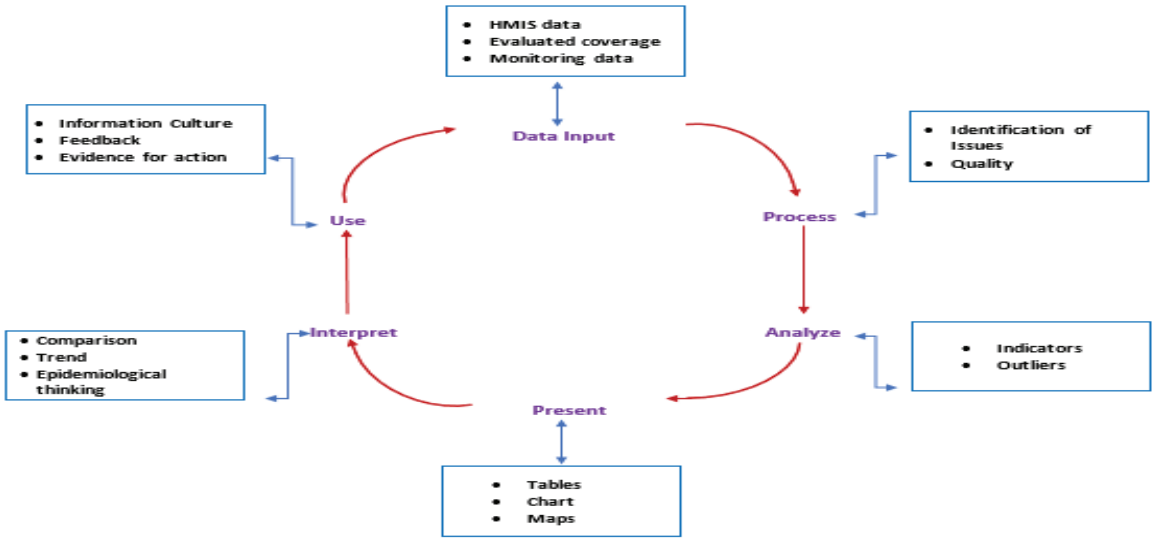
The key features of iQIP tool can be summarized as follows:

- Provide comprehensive data analytic and visualization tools
- Provide different kinds of tools for data validation and improvement of data quality
- Provide easy to use one-click reports with charts and tables for selected indicators or summary reports
- Flexible and dynamic data analysis in the analytics modules
- Info graphics, maps and charts included in the dashboard displaying analytical information, disparity and correlation between indicators.
- Option of changing chart types (bar chart, column chart, maps etc.) is provided to visualize coverage indicators for various indicators.
- Online tool available for monitoring and quick decision making in the form of Immunization dashboard.
- Feature developed for downloading of the dashboard in printable format.
- Legends (colors over range) included to highlight the status of the indicator performance.
- Feature developed to share infographics via social media.
- Further modules can be developed and integrated as per user needs (options of facility locator, geo-location)

1.3 Use of iQIP in health information system (HIS): Data collation, processing, interpretation and analysis

The broader context of health information system in iQIP can be described through the information cycle presented in flow diagram below. The information cycle illustrates the different components, stages and processes through which the data is collated, checked for quality, analyzed and used in the iQIP tool.

The Information Cycle



iQIP supports the different aspect of the information cycle including:

- Collating data.
- Running quality checks as outliers.
- Data access at multiple levels including national, state and district level
- Making graphs and maps and other forms of analysis.
- Data visualization till block level with options till the last mile of service delivery points (sub center level)
- Options of facility locator
- Enabling comparison across time (for example, previous months) and space (for example, across facilities and districts) and different antigens across same duration of time.
- Visualization of trends (in time series)

1.4 Data Updation in iQIP

HMIS data would be uploaded on Friday of first week of every month in iQIP. Complete database will be updated every month including previous month's data. The date will be displayed on every map in iQIP tool along with the source of the data. For example if data is uploaded on 3rd April 2020, it will show month wise data from April 2017 to February 2020 and the display status as on 3rd April 2020.

As per HMIS standard report generation cycle, the data shown will be of one month prior to the uploading date.

GETTING STARTED WITH iQIP

2. GETTING STARTED WITH IQIP

2.1 Log in to iQIP

Immunization data quality improvement programme (iQIP) is a web-based tool, which can be accessed by log in to the portal. The URL to access the portal is http://www.iqip.in.

Log in credentials:

Each user type will be provided with a unique user id and password to access the tool and its various modules

User level:

The tool can be used by three different level of users as mentioned below:

- National level user would have access to data of all states/UTs, district and block level.
- State/ UT level user would have access to data of all districts and blocks of the state.
- District level user would have access to data of all blocks of the district

User rights and privileges:

Information and access of the system is role based, not all the information can be displayed to every user. All users must have their own roles and access to the system as defined by the system administrator. The national, state and district level user would be provided login credential with specific privileges as mentioned below:

User	Rights	Data level
Admin	User creation, view, report analytics, graphs and maps on key indicators	National, state, district and block level
National	View, Report analytics, graphs and maps on key indicators	National, state, district and block level
State	View, Report analytics, graphs and maps on key indicators	State, district and block level
District	View, Report analytics, graphs and maps on key indicators	District and block level

Steps to Login

Step 1: Open your browser (The suggested browser is Google Chrome)

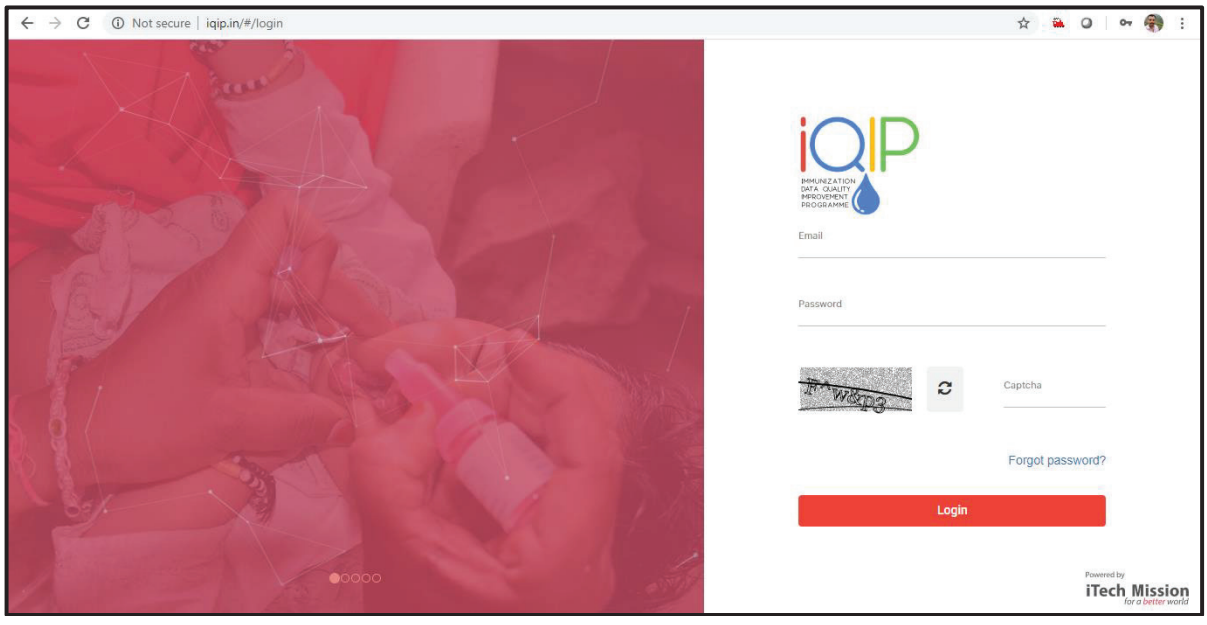
Step 2: Type the URL http://www.iqip.in

Step 3: Login with your username and password.

Step 4: Enter Captcha

Snapshot of the login window is shown below (Figure 1).

Figure 1: Login Window



2.2 Log Out from iQIP

At any time, the user can quit the session by logging out. Click 'Logout' link on the top-right corner of the menu to quit the session as shown in the below picture. (Figure 2)

Figure 2: Logout Window

MODULES OF iQIP

2.3 Modules of iQIP

The iQIP tool will aid monitoring and enhanced decision making in the form of immunization dashboards and user defined reports and will involve various modules like Outlier Monitoring, Data Intelligence, Dashboard, Facility Locator, Report Gallery and Manuals which are described further in this manual.

iQIP Section and icon

Left section of the iQIP screen

Coverage: This icon is used to select reported HMIS data

New Vaccine and campaign: This icon is used to select vaccine like RVV, PCV, and data related to MR and Mission Indradhanush campaign

AEFI: This icon is used to select AEFI secretariat data

Urban Immunization
It will show the NUHM city data

Cold Chain and vaccine logistic

Immunization Campaign: It will show the campaign data like polio, JE etc.

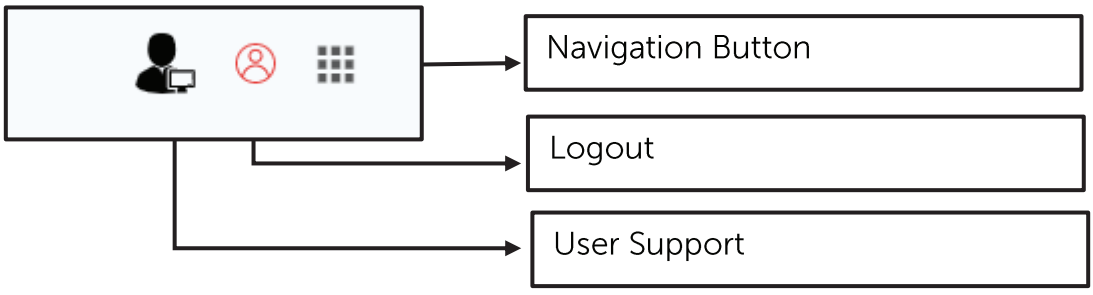
Communication: It will show data from UNICEF

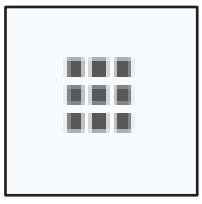
Road Map

ICIP: Immunization coverage improvement plan data

Others: Provision to upload data from other sources

Top right section of iQIP screen





Navigation button: to access all module namely Outlier Monitoring, Data Intelligence, Dashboard, Facility Locator, Report Gallery and Manuals

Following options can be selected on clicking Navigation button

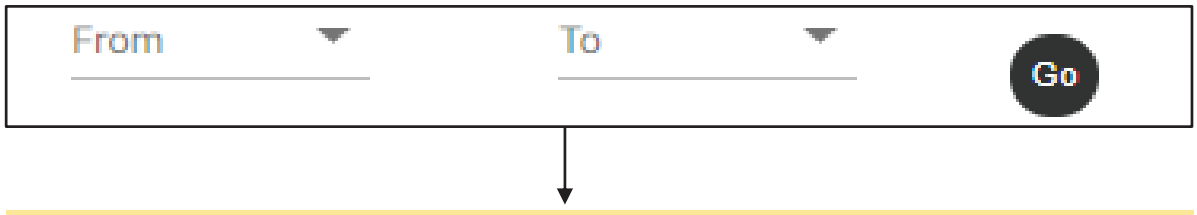
OUTLIER MONITORING	Enables the user to depict the state / district wise and further month wise anomalies by highlighting the outlier value (usually infrequent observations that appear to be out of place)
DATA INTELLIGENCE	Data intelligence module provides multiple options to visualize and analyze the data of the selected area
DASHBOARD	Dashboards are intended to provide quick access to different analytical objects (maps, charts, reports, tables, etc.)
FACILITY LOCATOR	Allows users to locate any health facility of the country or of selected area using the geo-location of the health facility
REPORT GALLERY	Allows the user to use objects and their element which are not readily available in other modules
MANUALS	Technical document to help any user and to understand the functionalities of the portal

Top left section of iQIP screen

DRILL DOWN OPTION

User can select National/State/District as per login level

Bottom section of iQIP screen of Data Intelligence module



To generate cumulative map enter From and To for multiple months

2.3.1 Outlier Monitoring

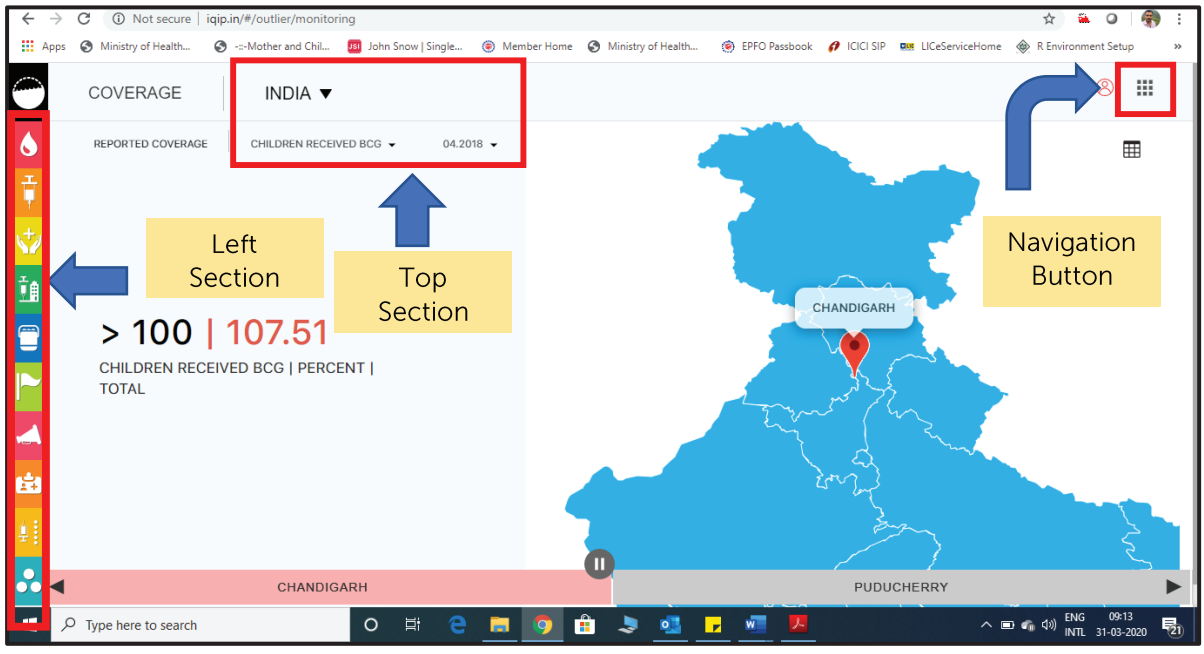
An outlier is an observation that lies at an abnormal distance from other values in a random sample. Outliers are usually infrequent observations that appear to be out of place when compared with the other values in the data set.

The outlier monitoring module enables the user to depict the state / district wise and further month wise anomalies by highlighting the outlier value. Here user can view the area(s) which are reporting data outside the outlier value set by the system administrator for a specific indicator, area and time period combination as per the 'Most recent data uploaded. National/ State / District program manager can take corrective measures based on coverage outliers of their state/ district /blocks respectively.

National user can view indicators of state, district and block level, state user can view district and block information, district user can view block indicators.

The left section of the screen with colored buttons allows to change the sector and sub-sector. The top panel allows to select an area, indicator and time period. There is a navigation button at top right corner of the screen. (Figure 3)

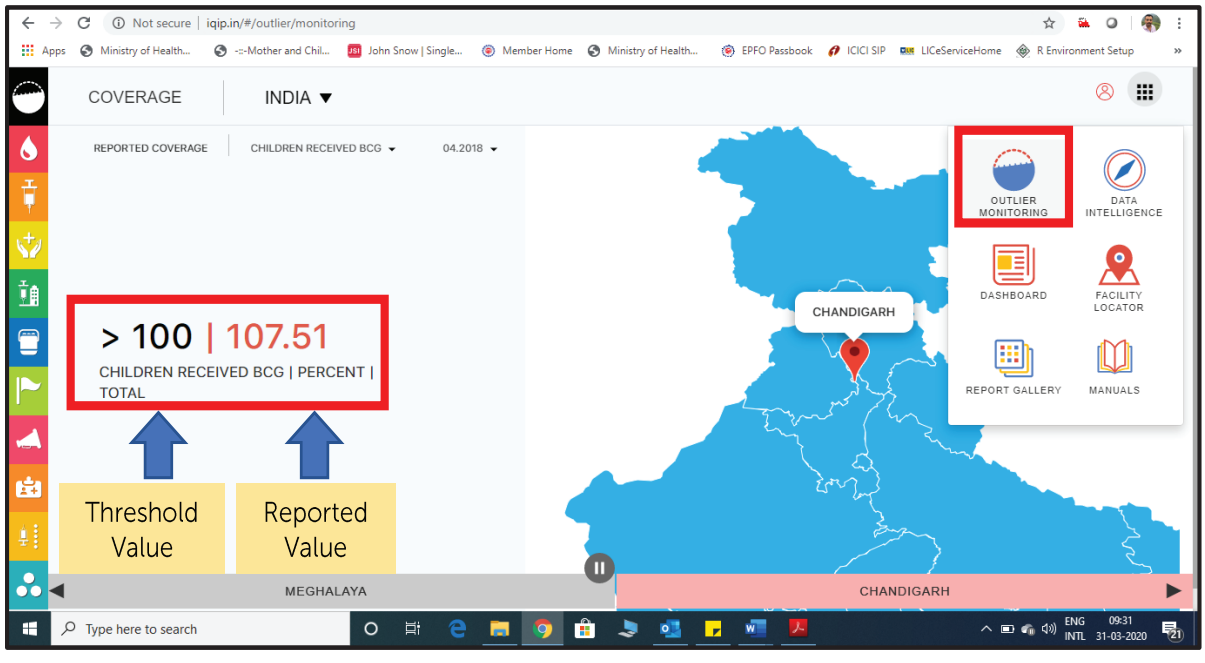
Figure 3:Outlier Module



Following are the steps for viewing outliers monitoring data on the screen and downloading.

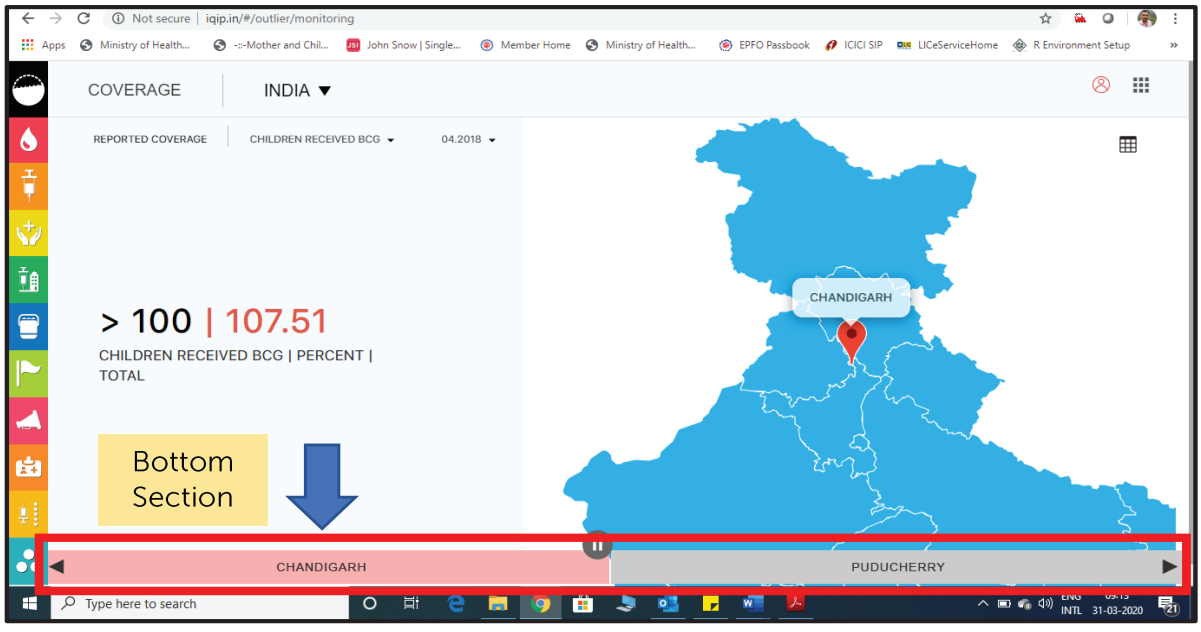
- Click on the navigation button at right upper corner of screen and select Outlier Monitoring as displayed on the below mentioned picture
- To view the areas reporting the values outside a threshold value, user have to select parent area (for example National level user needs to select India using national login id, map of states of India which are reporting outside the threshold value of the selected indicator and time period would be displayed. Same for login with state id to see districts and with district login to see block outliers). (Figure 3)

Figure 4:Module depicting the outlier value based on the selected area



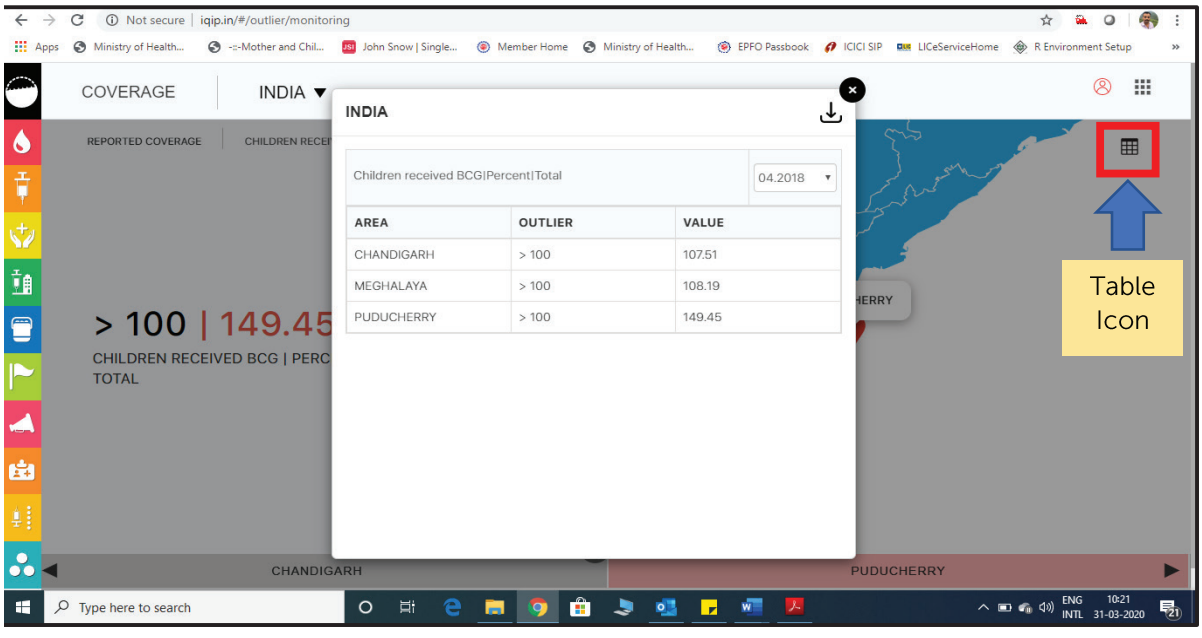
- The left side of the middle section shows the threshold value (in black color) and the reported value (in red color) by the marked area in the map. The right side of the middle section shows the map with the pointer moving to those areas who are reporting values outside the threshold value. (Figure 4) e.g. Chandigarh in the map.
- User have the option to pause the movement of the pointer on the map. The bottom section shows the area names which are pointed on the map and reporting outlier value. (Figure 5)

Figure 5: Depicting the Pause button to stop the movement



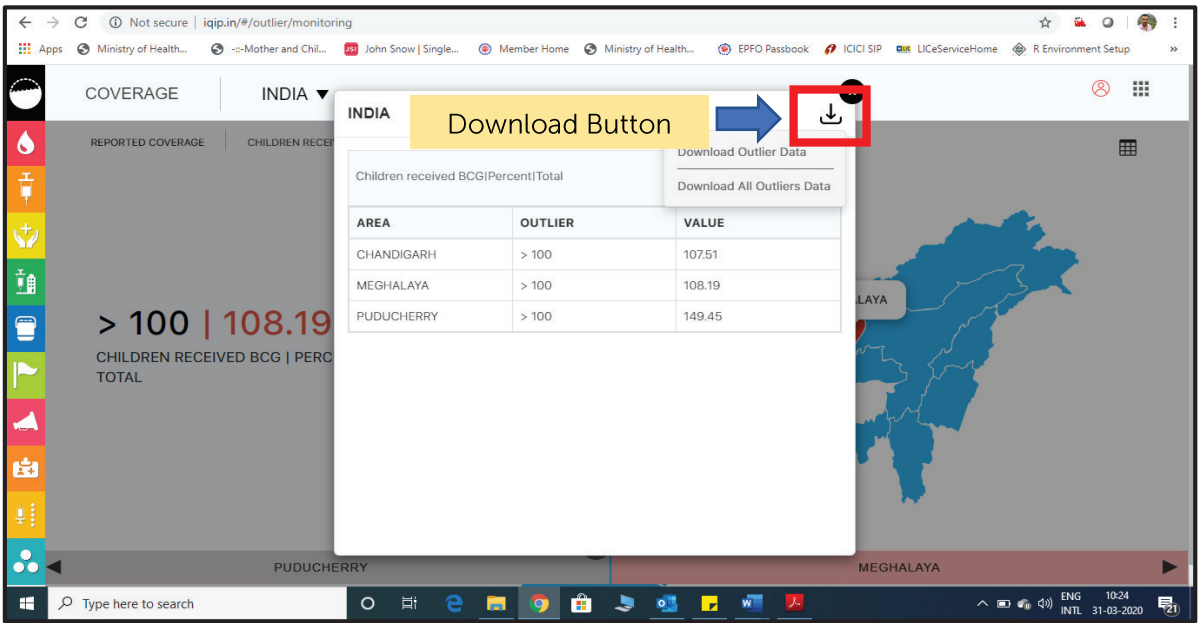
- There is an option to view the underlying outlier data. Click on table icon highlighted in the figure below to view the data in tabular format. It will enable the user to view which states / districts have reported the outlier value for the selected indicator in a single table as shown in the picture below. (Figure 6)

Figure 6: Table of Outlier Data



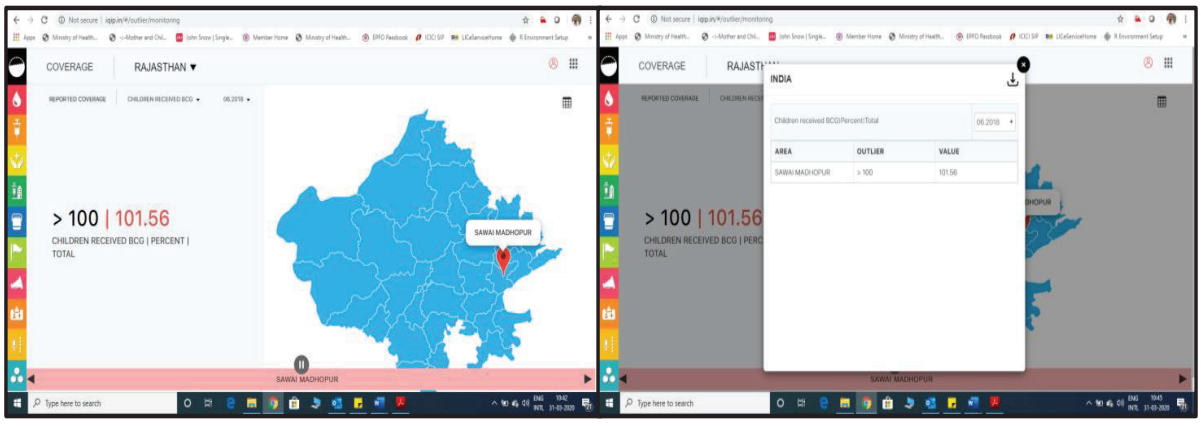
- To download this data in a CSV (Comma Separated Values) format. Click on the download button highlighted in the below figure. User will have option to select downloading the complete data reported outside all the set threshold or only download the data reported outside the threshold value for selected indicator only. (Figure 7)

Figure 7: Downloading Outlier Data



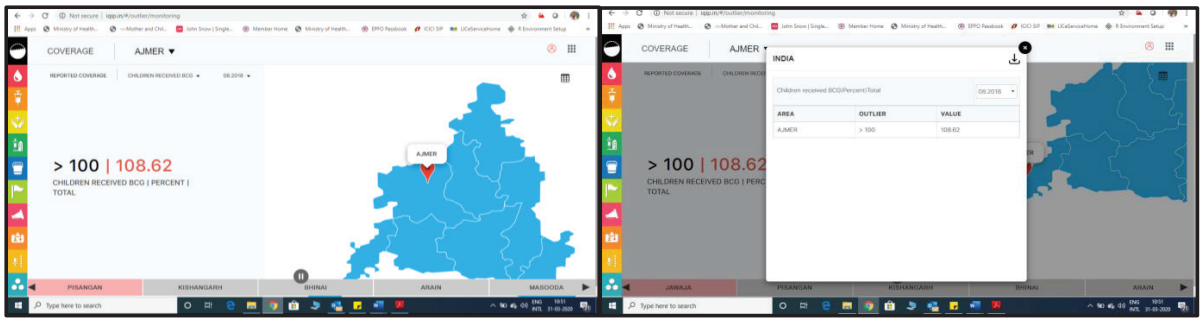
- To download the data for the selected period only, user has to click on download outlier data and if user wants to download the outlier data for all the months for which data is available on the portal, he/she needs to click on download all outlier data.
- **From the state level login**, state level users will be able to see and download the district level outliers. Rest all the process for viewing and downloading will remain same as above. Below are some of the snap shots from state level login. (Figure 8)

Figure 8: Login from State Credentials



- **From the district level login**, district level users will be able to see and download the block level outliers. Rest all the process for viewing and downloading will remain same as above. Below are some of the snap shots from district level login. (Figure 9)

Figure 9: Login with District Credentials



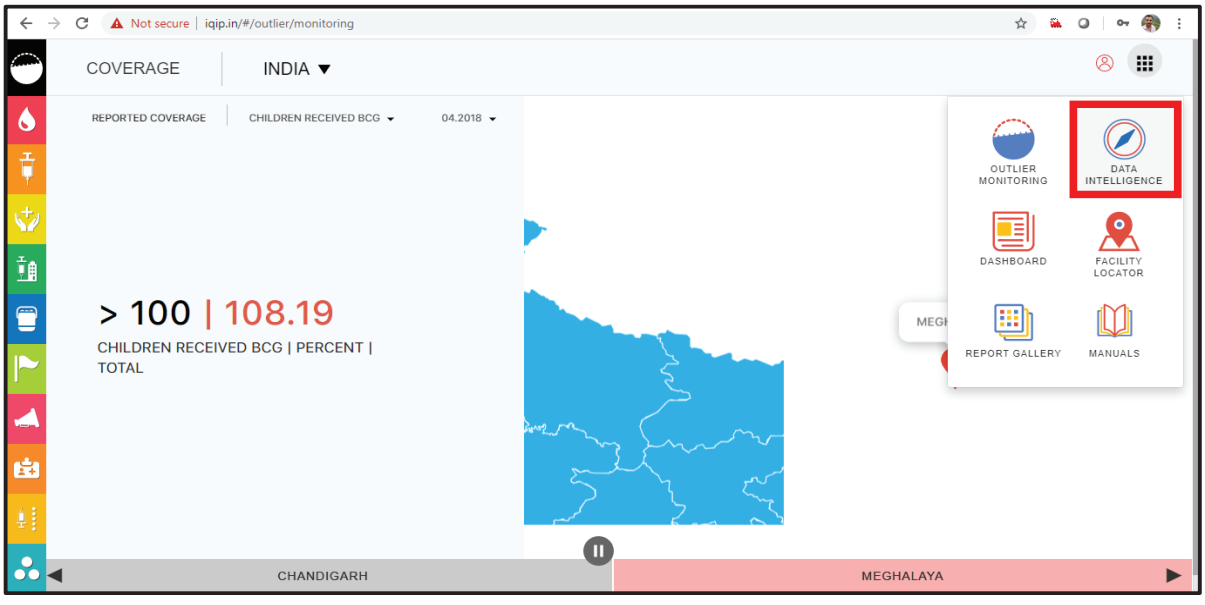
2.3.2 Data Intelligence

Immunization Data is typically available in huge volumes and if it is a quality data then it describes unarguable facts. Information is produced when a series of data points are combined to answer a simple question. For instance, sticking with our drop out example, coverage of penta3 and MCV1 can be calculated to produce dropout rate, which can then be plotted onto a chart to determine whether it falls within the normal range for the selected area.

Data intelligence can be used to take informed decision wherein the program managers can choose to act on specific information such as high dropout for a certain antigen in an area/ planning unit

This module can be accessed by clicking on the data intelligence option under the navigation button as shown in the picture below. (Figure 10)

Figure 10: Depicting Data Intelligence Module in navigation button



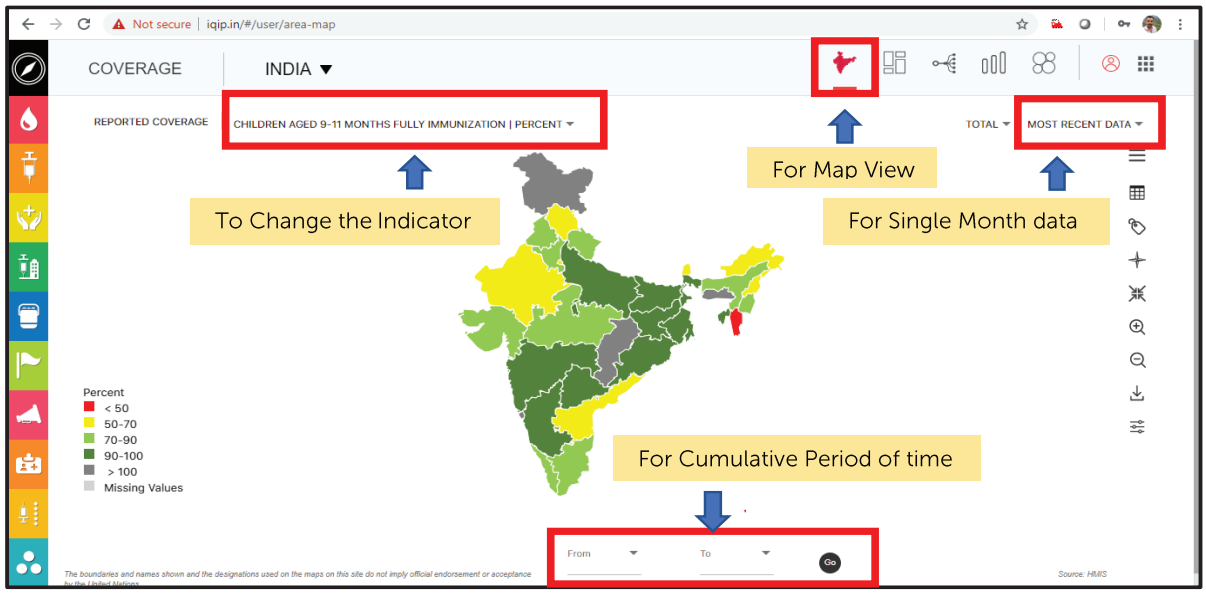
Data intelligence module provides multiple options to visualize and analyze the data of the selected area. Each option is described in detail in the below segments. These options are:

- Map
- Visualization
- Classification
- Rank

2.3.2.1 Map

It is a feature which displays map of a selected indicator at a time. By clicking on data intelligence option, the next screen displays, is of map view of the selected indicator based on the area selection. This is the landing page of the data intelligence module however, user can get this view by clicking the map icon on the screen as highlighted in the picture below. The user has the option of changing the indicator and generating the map of the same. It facilitates to view data of the selected area, indicator and time period (monthly / cumulative) using a color theme/legend. User can drill down from various levels (national, state and district) to display information in the form of map, chart or table. At a time one indicator map can be generated. Some options are highlighted in the picture below. (Figure 11)

Figure 11:Map view for the selected indicator

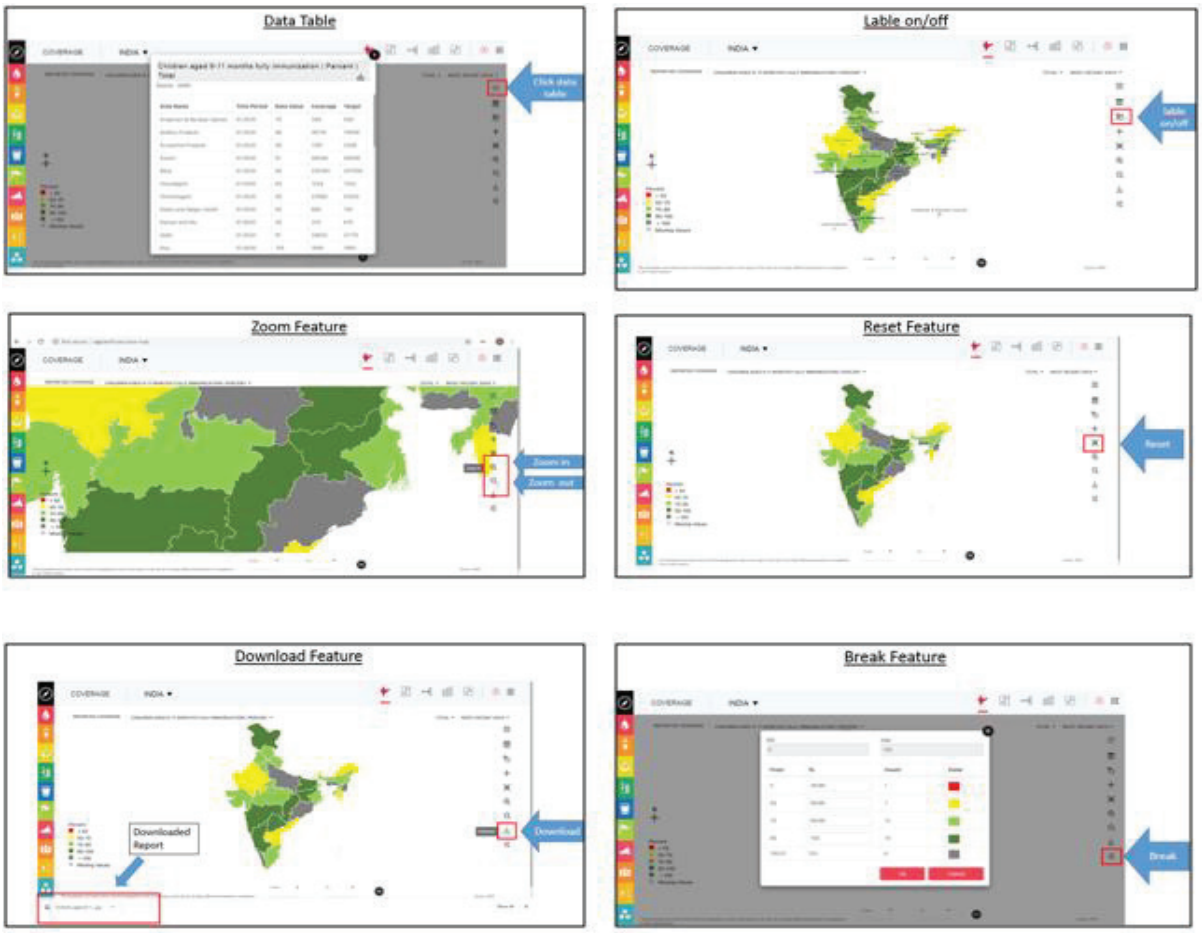


Some other components of the map view can be described as below.

	Charts: This option will be used to change the type of chart, User can change the chart type like map to a bar chart, bar chart to a column chart.
	Data Table: It will display the data table related to the map/chart for the selected indicator based on the area selection.
	Label on /off: This is toggle button. As the name suggest that by one click it will display the labels on map/chart and by another click it will delete the labels from map/chart.
	North Symbol: It will display the north symbol on the map/chart.
	Reset: It will change the size of map by bringing it back to original size.
	Zoom In: It will help the user to increase the size of map/chart.
	Zoom Out: It will help the user to decrease the size of map/chart.
	Download: It will allow the user to download the map/chart with legend and time period for further use.
	Break: This option will help the user to change the legend options like user can change the breaking point as well as color for the breaking point.

All these options are shown in the below image as well. (Figure 12)

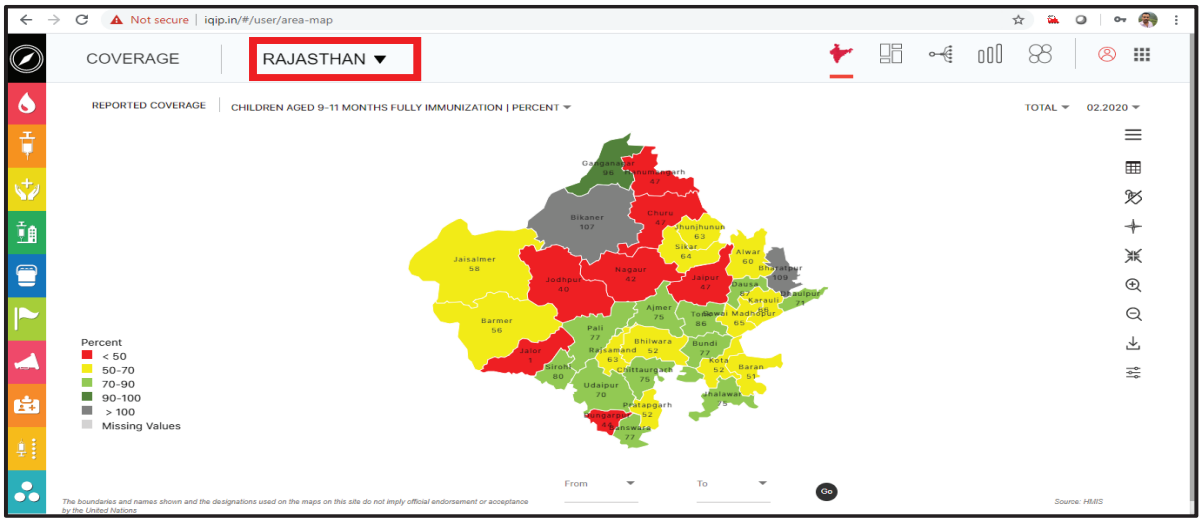
Figure 12: Different components of Map View



State Login

For state user, district wise indicators are available for the specific state. A state user can see only their district/block wise indicators. Rest other features remain same as available to National user as explained above in this document. Drill down to district indicators to view block wise indicators as highlighted using red box. (Figure 13)

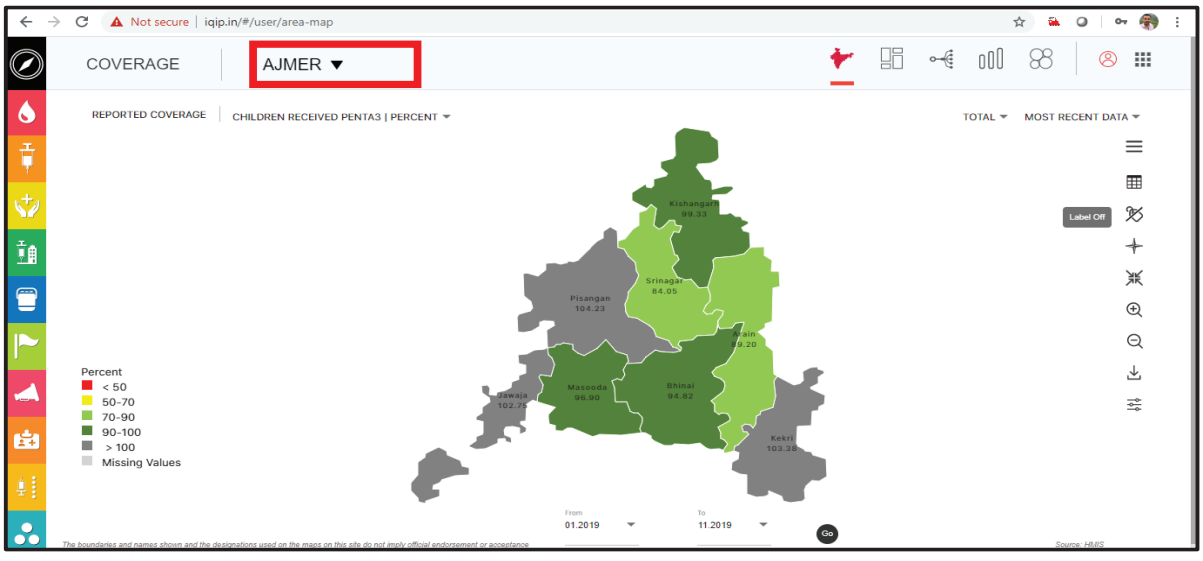
Figure 13 Screenshot with State Login



District Login

For district user, block wise indicators are available for the specific district. A district user can see only their block wise indicators. Rest other features remain same as available to National user as explained above in this document. Drill down to district indicators to view block wise indicators as highlighted using red box in figure below. (Figure 14)

Figure 14: Screenshot with District Login

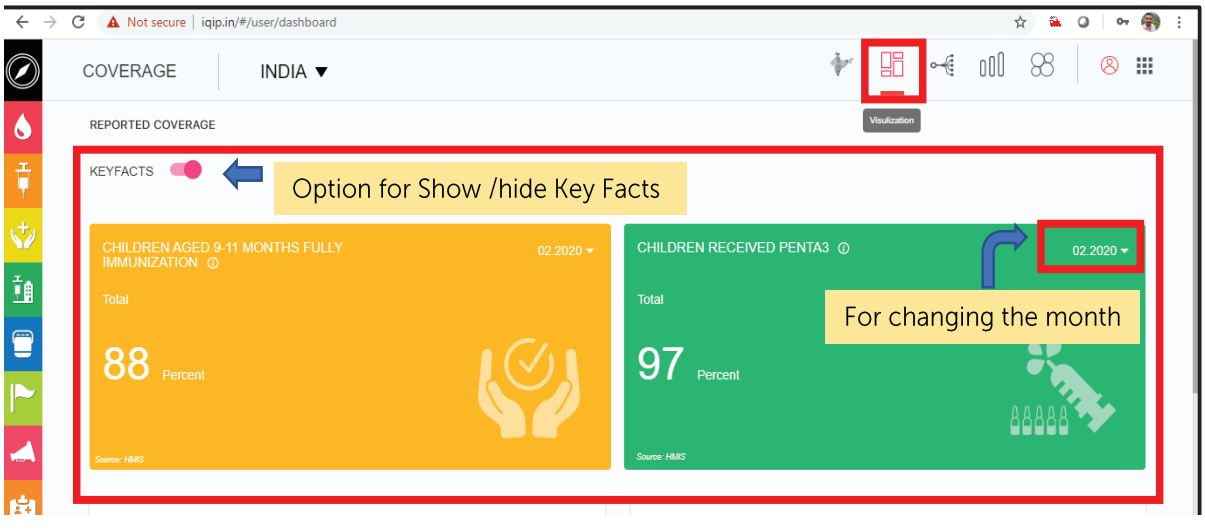


2.3.2.2 Visualization

Data visualization is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends and patterns in immunization data.

By clicking on data intelligence option in the navigation button, user need to select the visualization option. It is located next to the map option as shown in the below picture. This option has the different visualization tools which provides an accessible way to see and understand trends and patterns in immunization data as highlighted in the picture. (Figure 15)

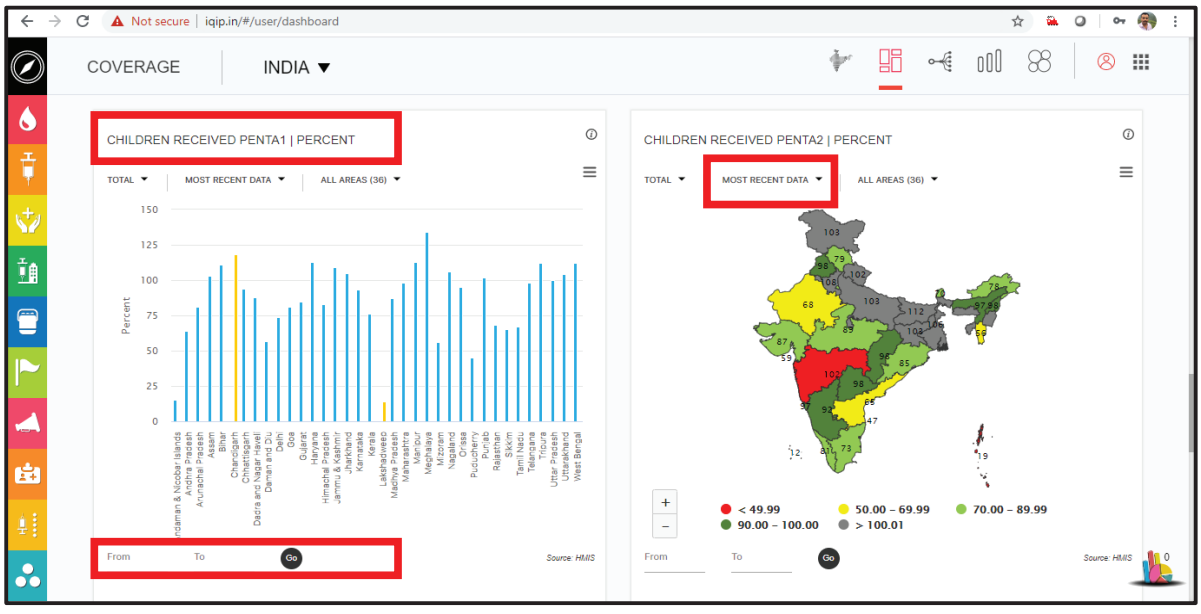
Figure 15: Depicting visualization view with key facts



On the top of this visualization view, there are two key coverage indicators of immunization (Full Immunization Coverage & Penta-3 Coverage) which are represented here as key facts. User can show / hide these key facts as well. At the same time user has an option of selecting the month for these critical indicators by which user can get the data of the desired month.

Below the key facts, there are some other immunization coverage indicator available. Each indicator is presented in a separate box with all the available options like time period, Area selection. User can have the graphical representation of data for a particular month or for a cumulative period of time as shown in picture below. (Figure 16)

Figure 16:Indicator wise representation in visualization



In this visualization, user have an option to select the area in between the maps/ charts, for example, if a national level user wants to get the chart of Penta 1 & Penta 2 coverage only for two selected states, user can do the same by selecting the area as required. This feature has been shown in Figure 17.

If user wants to delete the specific indicators, this can be done by clicking the cross on the top of the right corner of box of selected indicator. By clicking this cross button, it will be deleted from the current window but gets stored in the recycle bin, so that it can be restored as and when required. (Figure 18)

Figure 17:Comparison between different areas

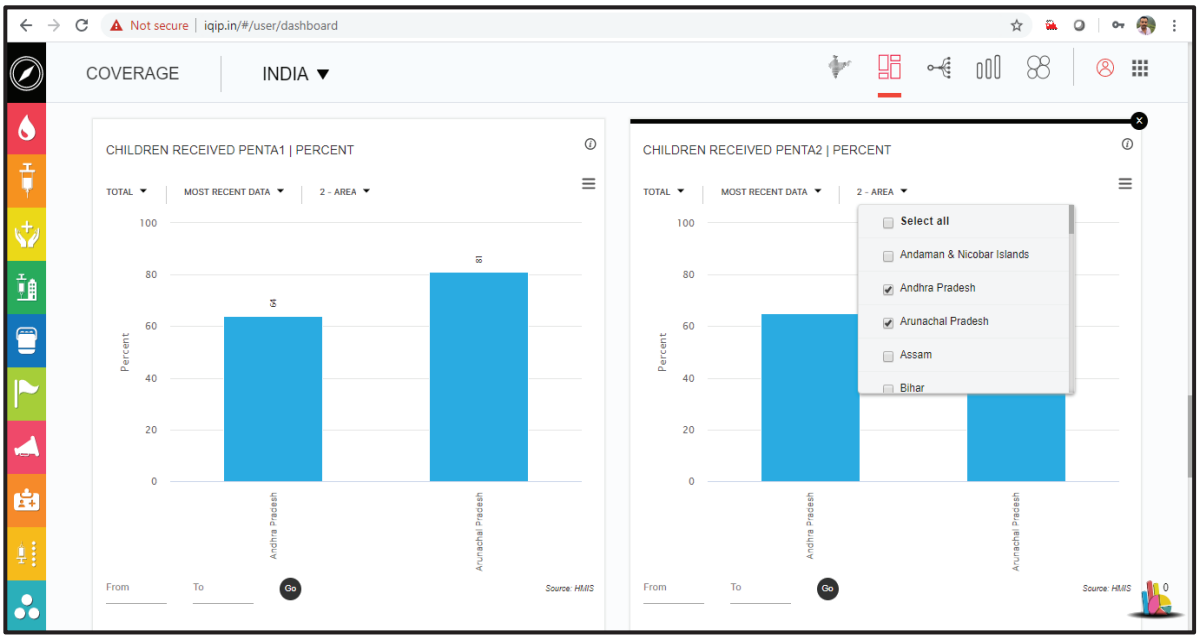
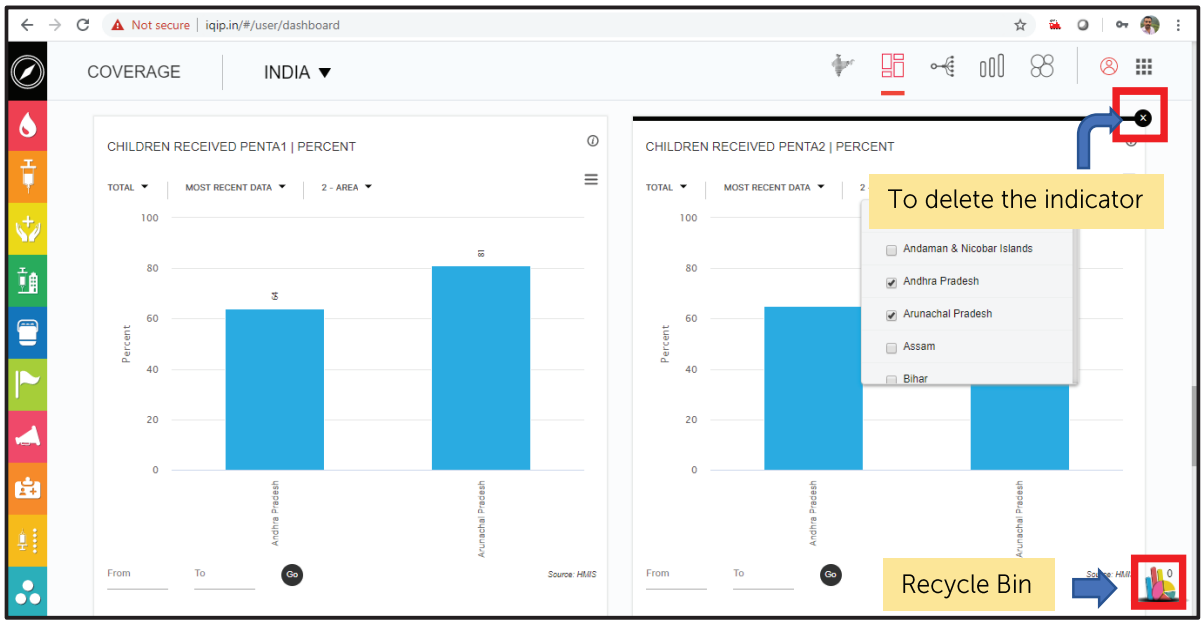
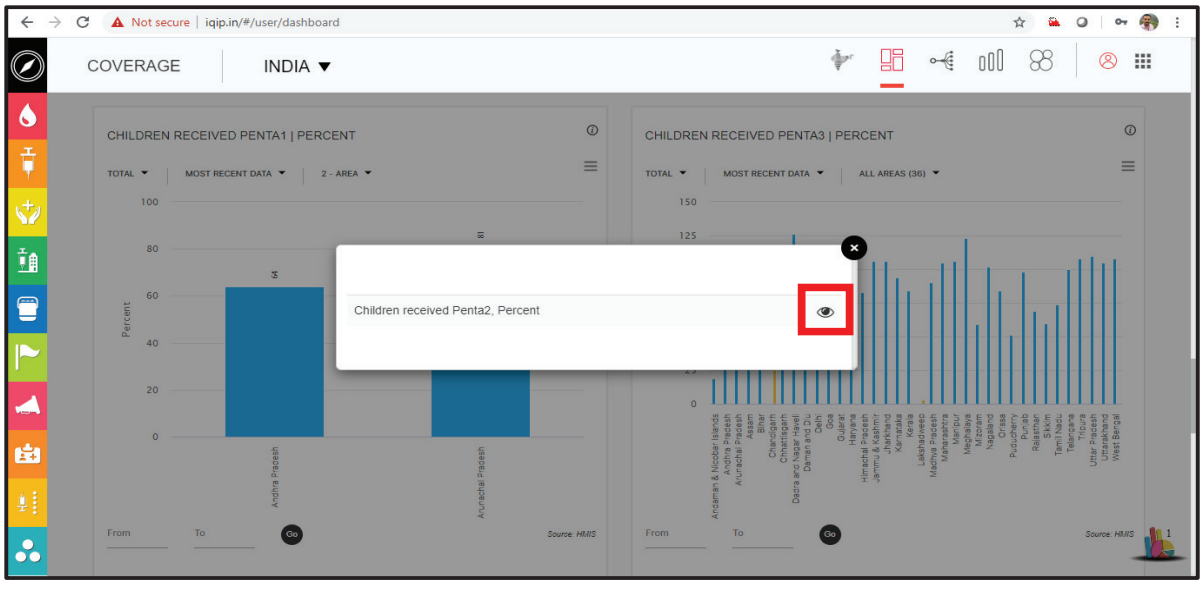


Figure 18: Depicting delete & recycle bin button



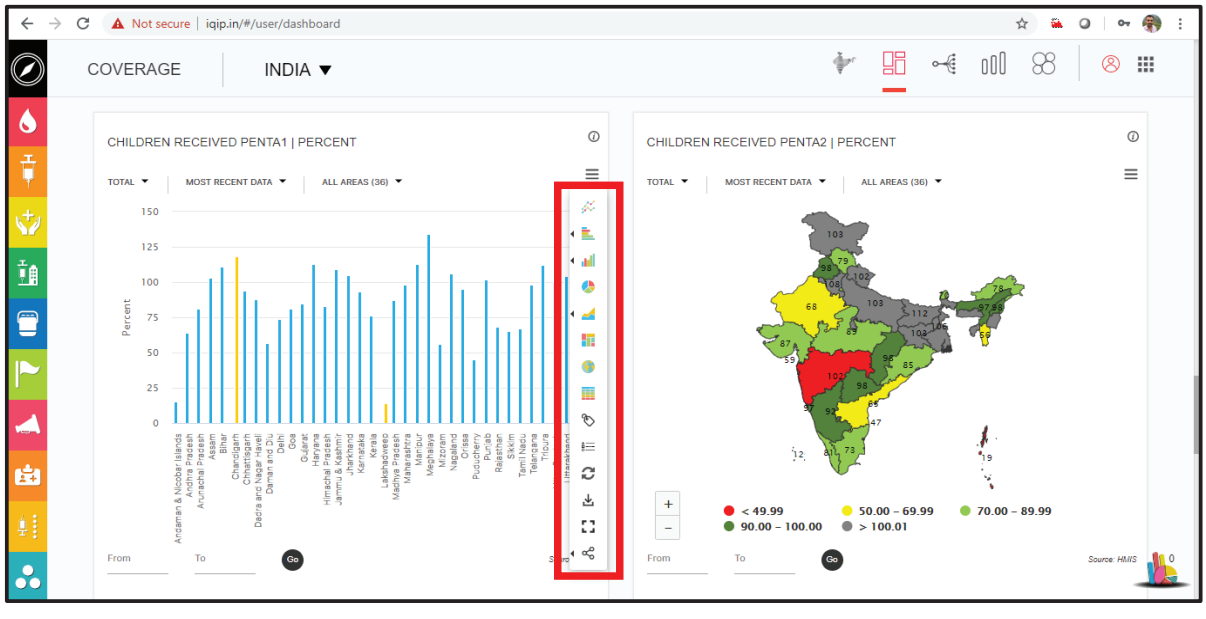
To restore the deleted indicator, user need to click on the recycle bin, it will open the recycle bin and the user can see the list of all the deleted indicators. For restoring any indicator, user will need to click on the eye button located next to the indicator and by clicking on this eye button, the indicator will be restored at its original place in the visualization view. This is clearly shown in the picture. (Figure 19)

Figure 19: Recycle Bin containing deleted indicator



Rest all other options for changing the chart type, download any specific map / chart, sharing on Facebook and Twitter, swapping (switching x axis data to y axis and y axis data to x axis), Label, Zoom In / Out etc. will remain same as described in the map view. (Figure 20).

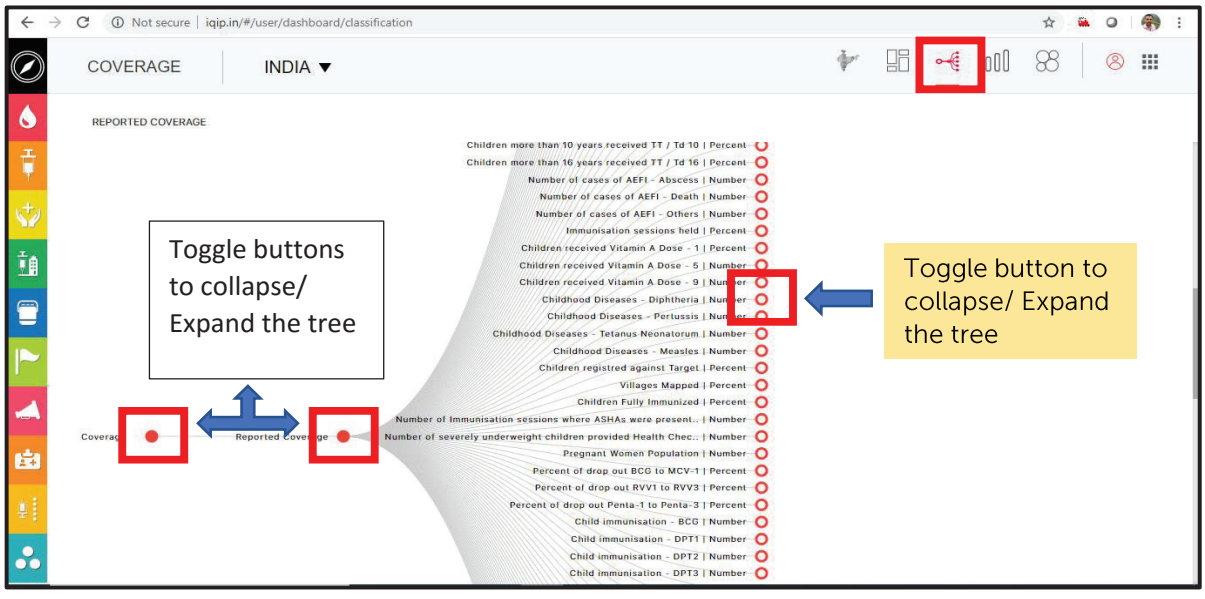
Figure 20: Depicting other components like chart type, download, and swap



2.3.2.3 Classification

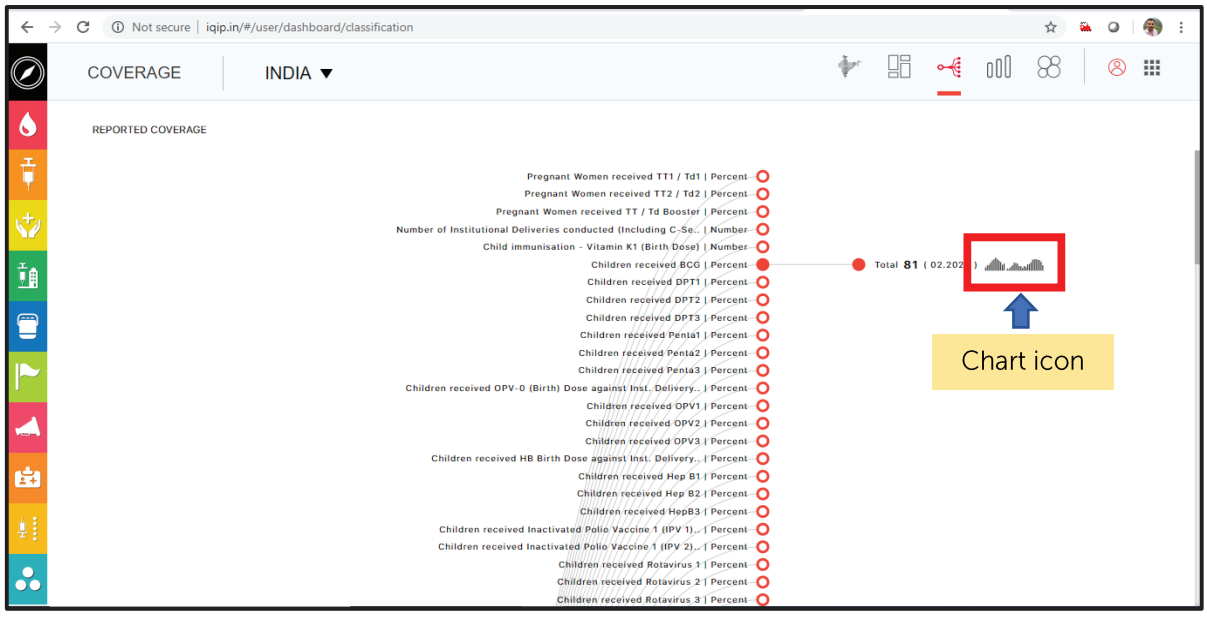
The third visualization button on the top right side allows to change to the classification view. By clicking on data intelligence option in the navigation button, user needs to select the classification option. It is located next to the visualization, which is the third option in data intelligence module as shown in the picture below. The main advantage of this option is that it gives a list of all the indicators in a single click in the form of a collapsible tree. All the solid red dots are the toggle button which are used to collapse and to expand the tree as per the requirement. (Figure 21)

Figure 21: Depicting all the indicators as a collapsable tree



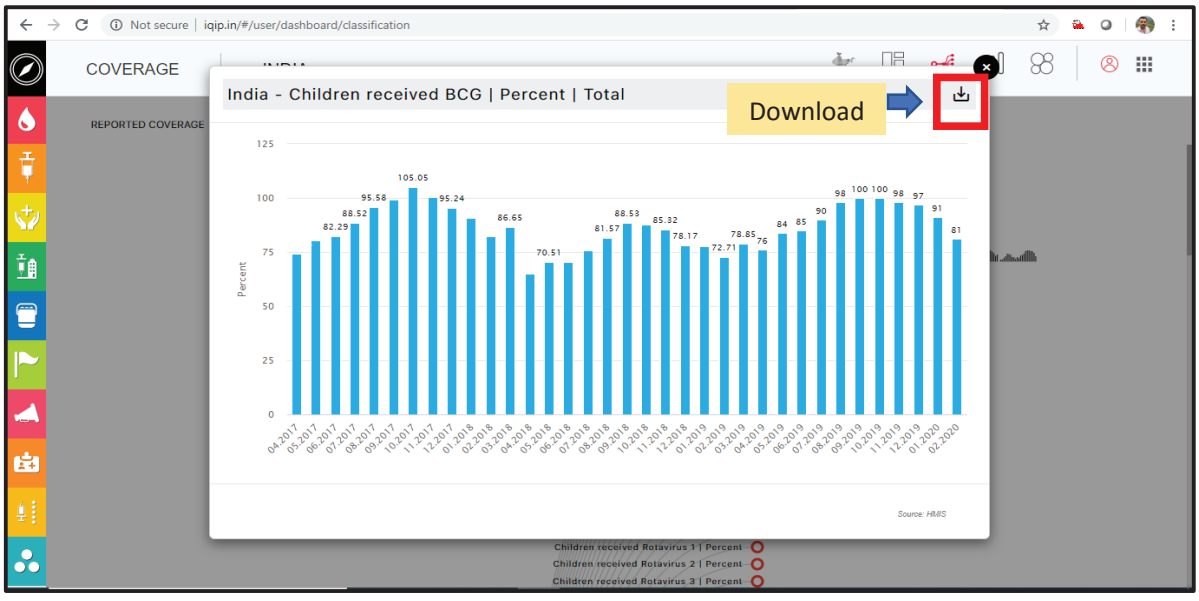
By clicking any toggle button, it will display the next level of the tree. By clicking the last node of the tree, it will display an icon of the chart based on the most recent data and area selected. (Figure 22).

Figure 22: Icon for displaying a chart in full screen



Clicking on this chart icon will further pop-up the chart of the respective indicator in the separate window and this chart can be downloaded for further use as shown in the snapshot below. (Figure 23)

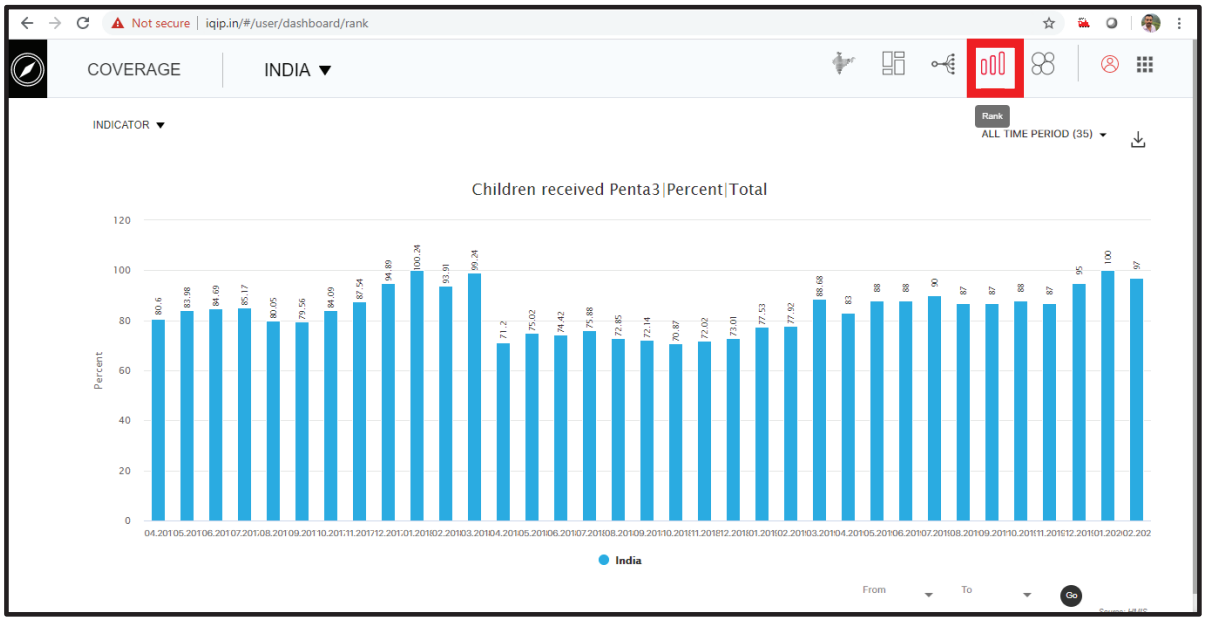
Figure 23: Full screen chart to download in Classification view



2.3.2.4 Rank

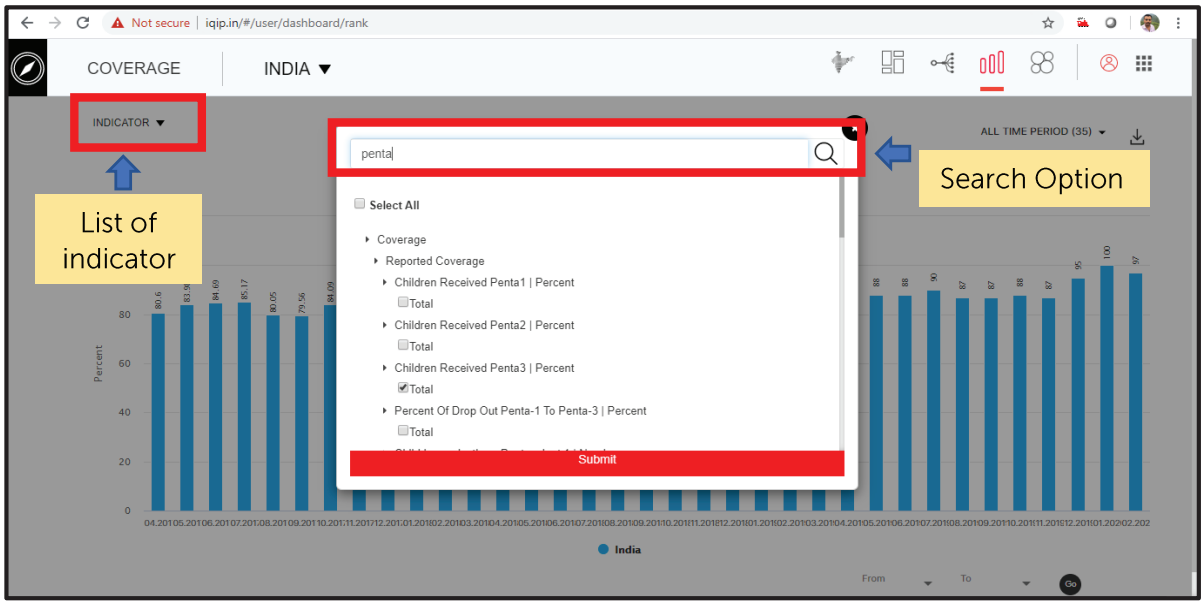
Rank view is used to generate trend chart and to compare one or more indicators over a period of time. By clicking on data intelligence option in the navigation button, user needs to select the Rank option. It is located next to the visualization, which is the fourth option in data intelligence module as shown in the below picture. The main advantage of this option is that it gives the flexibility to the user to compare the indicators over a period of time based on the area selected. Graphical representation of this option is shown in the picture below. (Figure 24)

Figure 24: Depicting Rank view of data intelligence module



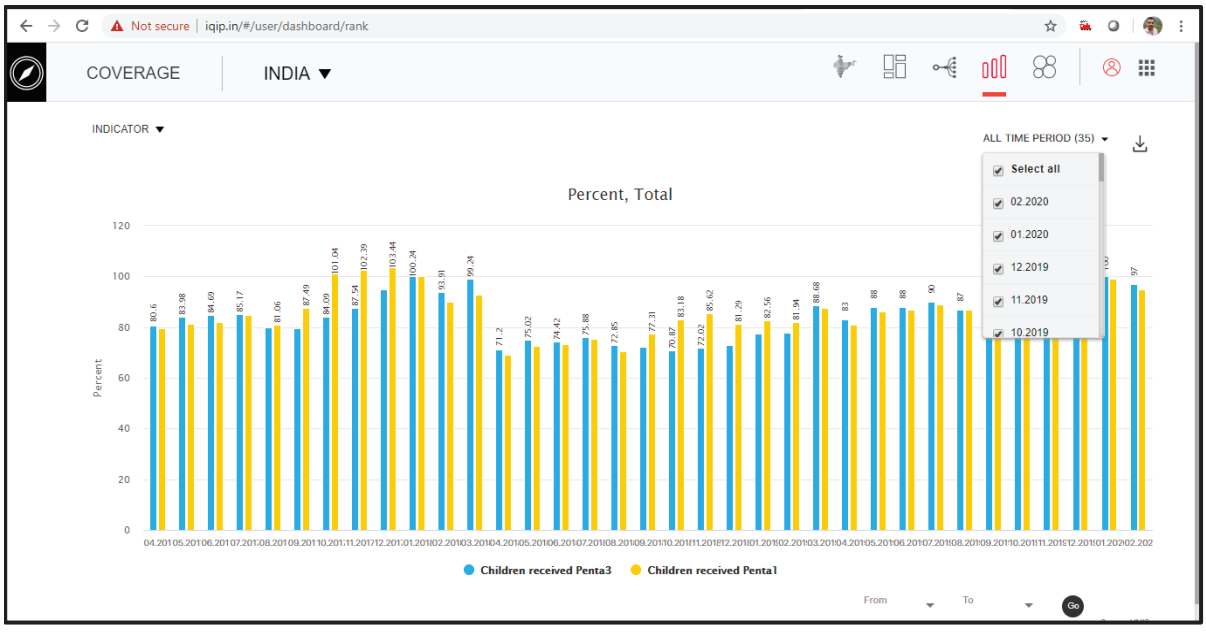
In this option, user have the facility to compare more than one indicator over a particular period of time. To compare more than one indicator, user needs to select the required indicator from the list of indicators as shown in the picture. For selection of the indicators, user needs to enter the keyword for the indicator in the search box, it will display all the indicators related to the keyword, then user can select the required indicator from the list. (Figure 25)

Figure 25: Selection of Multiple indicators



After indicator selection, the comparative graph will look like the displayed picture below. Here user have an option to select the month based on the requirement. (Figure 26)

Figure 26: Month wise Comparison of multiple indicator



For comparison between the same period of more than one year and for multiple indicators, user needs to select the period from the bottom section of the screen as shown in the below

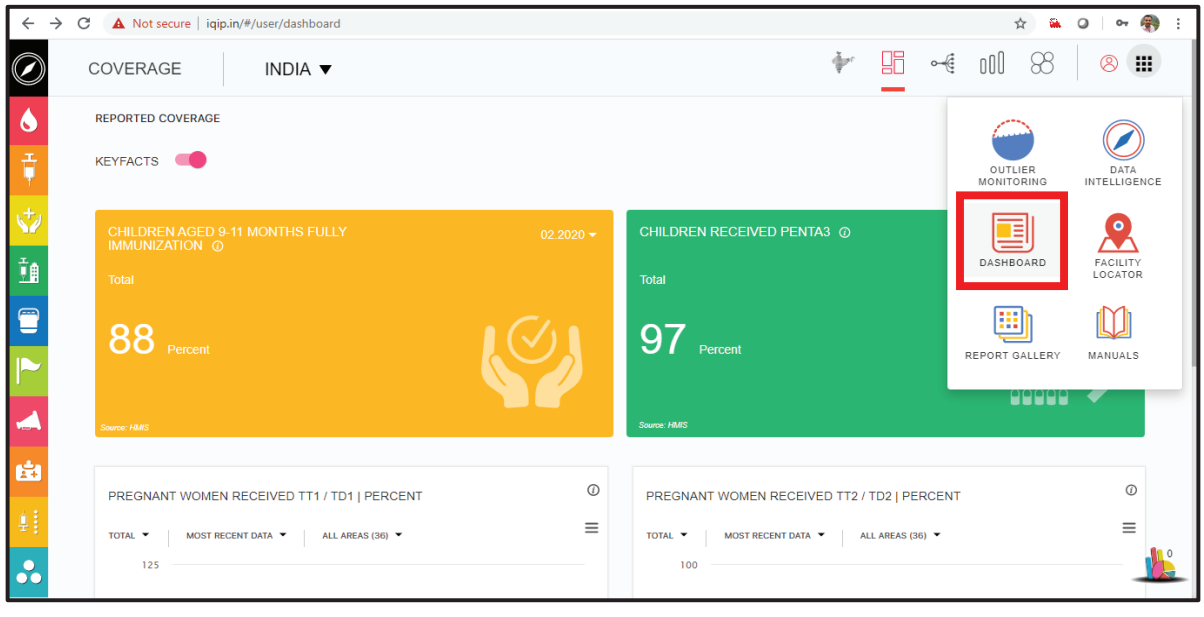
picture. It will give the more than one-year comparison for the selected indicators in a graphical representation. (Figure 27)

Figure 27: Comparison for corresponding period of last 3 years

2.3.3 Dashboard

Dashboards are intended to provide quick access to different analytical objects (maps, charts, reports, tables, etc.) to an individual user. It is a process used to represent key performance indicators and relevant data in a visual, dynamic and interactive way. User can view their own different reports, charts, graphs, key performance indicator that enable them to derive actionable insights while saving time.

Figure 28: Depicting the path for Dashboard module



One of the key features of iQIP tool is to generate the immunization dashboard based on the selected area. The dashboard includes detailed analysis of data on child immunization from different health portals/data sources (Health Management Information System-HMIS, Mother and Child Tracking System-MCTS/Reproductive and Child Health-RCH portal, Concurrent Monitoring Data by World Health Organization, Performance Data of AEFI surveillance and reporting in the states and RI Communication Indicators by UNICEF). It will help the State/ District to identify gaps in the data and to take corrective measures to improve the program performance.

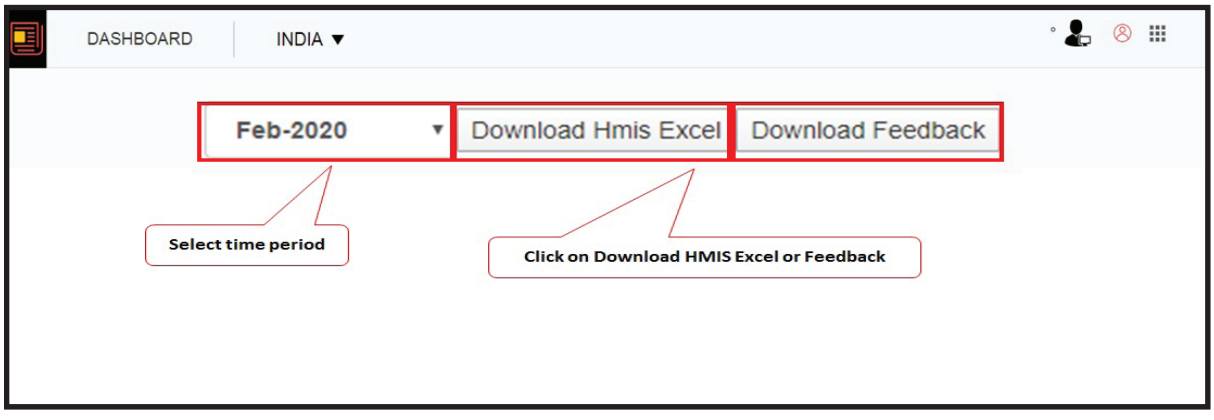
User can access this module by clicking on the Dashboard option under the navigation button as shown in Figure 28.

Dashboard module provide option to select time period and download one of the following options:

- Download HMIS Excel - To download dashboards
- Download Feedback – To download feedback and observation

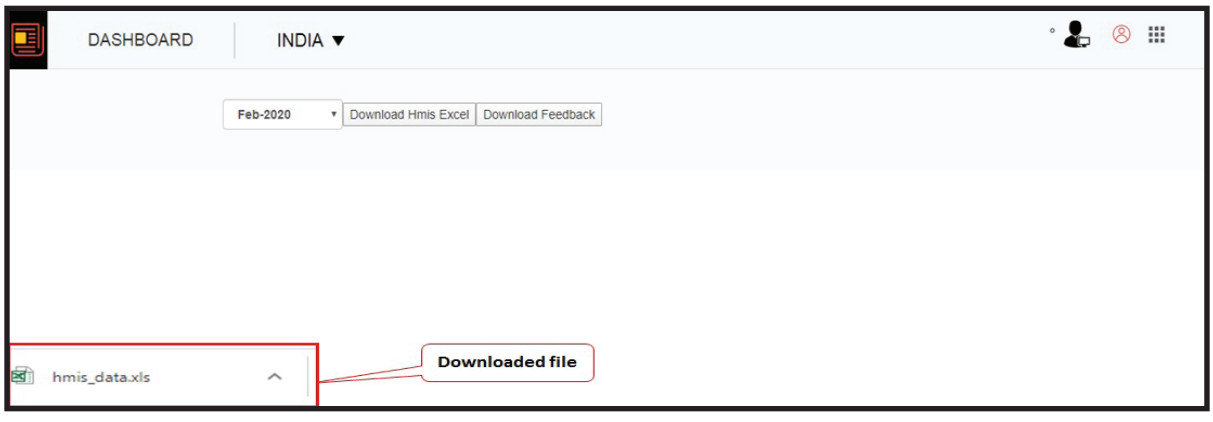
Dashboard / Feedback will generate based on cumulative indicators

Figure 29: Depicting dashboard module options



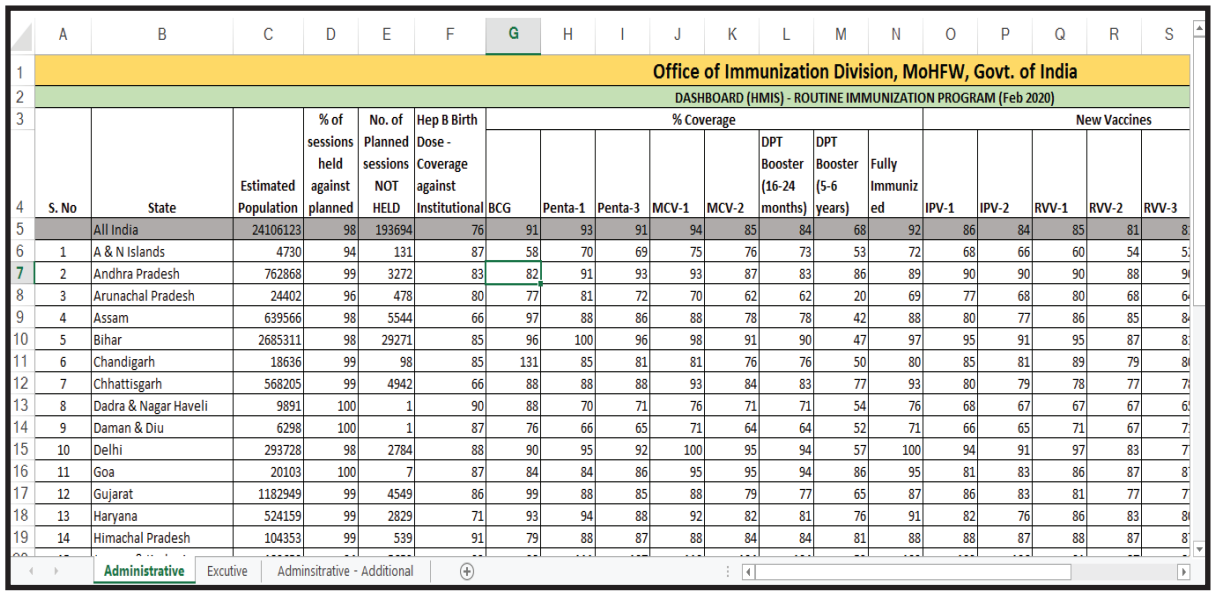
On clicking download HMIS excel button, the dashboard will be downloaded as shown in figure 30.

Figure 30: Depicting downloaded HMIS excel file



The downloaded file shows session status, percentage reported coverage including new vaccines, percentage drop-outs and number of cases of childhood diseases. Downloaded file has administrative Dashboard, Executive dashboard and administrative - additional dashboard as given in the figure (31):

Figure 31: Depicting administrative dashboard in downloaded HMIS excel file

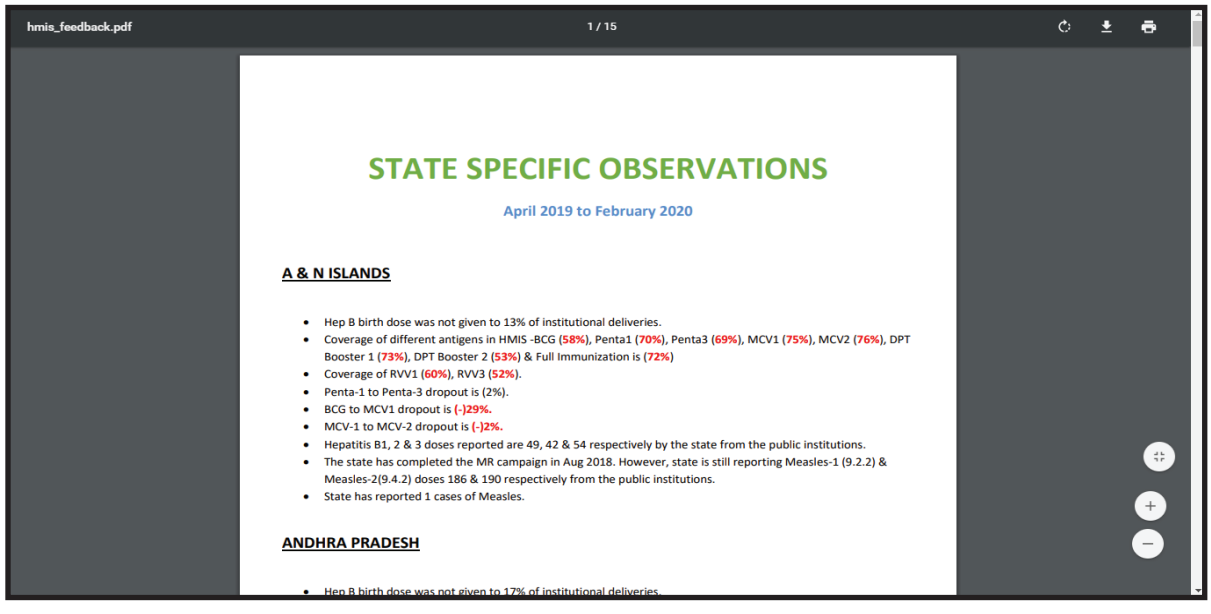


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Office of Immunization Division, MoHFW, Govt. of India																		
2	DASHBOARD (HMIS) - ROUTINE IMMUNIZATION PROGRAM (Feb 2020)																		
3				% of	No. of	Hep B Birth	% Coverage								New Vaccines				
4	S. No	State	Estimated Population	sessions held against planned	Planned sessions NOT HELD	Dose - Coverage against Institutional	BCG	Penta-1	Penta-3	MCV-1	MCV-2	DPT Booster (16-24 months)	DPT Booster (5-6 years)	Fully Immuniz ed	IPV-1	IPV-2	RVV-1	RVV-2	RVV-3
5		All India	24106123	98	193694	76	91	93	91	94	85	84	68	92	86	84	85	81	8
6	1	A & N Islands	4730	94	131	87	58	70	69	75	76	73	53	72	68	66	60	54	5
7	2	Andhra Pradesh	762868	99	3272	83	82	91	93	93	87	83	86	89	90	90	90	88	9
8	3	Arunachal Pradesh	24402	96	478	80	77	81	72	70	62	62	20	69	77	68	80	68	6
9	4	Assam	639566	98	5544	66	97	88	86	88	78	78	42	88	80	77	86	85	8
10	5	Bihar	2685311	98	29271	85	96	100	96	98	91	90	47	97	95	91	95	87	8
11	6	Chandigarh	18636	99	98	85	131	85	81	81	76	76	50	80	85	81	89	79	8
12	7	Chhattisgarh	568205	99	4942	66	88	88	88	93	84	83	77	93	80	79	78	77	7
13	8	Dadra & Nagar Haveli	9891	100	1	90	88	70	71	76	71	71	54	76	68	67	67	67	6
14	9	Daman & Diu	6298	100	1	87	76	66	65	71	64	64	52	71	66	65	71	67	7
15	10	Delhi	293728	98	2784	88	90	95	92	100	95	94	57	100	94	91	97	83	7
16	11	Goa	20103	100	7	87	84	84	86	95	95	94	86	95	81	83	86	87	8
17	12	Gujarat	1182949	99	4549	86	99	88	85	88	79	77	65	87	86	83	81	77	7
18	13	Haryana	524159	99	2829	71	93	94	88	92	82	81	76	91	82	76	86	83	8
19	14	Himachal Pradesh	104353	99	539	91	79	88	87	88	84	84	81	88	88	87	88	87	8

Administrative | Excutive | Adminsitrative - Additional

Download Feedback option includes state specific observation such as percentage coverage, percentage dropouts, state administering Measles and Rubella (MR) vaccine still reporting Measles doses etc. will be generated for corrective action. The output as given in figure 32 will be generated when clicked on Download Feedback option:

Figure 32: Depicting downloaded feedback of dashboard module



hmis_feedback.pdf 1 / 15

STATE SPECIFIC OBSERVATIONS

April 2019 to February 2020

A & N ISLANDS

- Hep B birth dose was not given to 13% of institutional deliveries.
- Coverage of different antigens in HMIS -BCG (58%), Penta1 (70%), Penta3 (69%), MCV1 (75%), MCV2 (76%), DPT Booster 1 (73%), DPT Booster 2 (53%) & Full Immunization is (72%)
- Coverage of RVV1 (60%), RVV3 (52%).
- Penta-1 to Penta-3 dropout is (2%).
- BCG to MCV1 dropout is (-)29%.
- MCV-1 to MCV-2 dropout is (-)2%.
- Hepatitis B1, 2 & 3 doses reported are 49, 42 & 54 respectively by the state from the public institutions.
- The state has completed the MR campaign in Aug 2018. However, state is still reporting Measles-1 (9.2.2) & Measles-2(9.4.2) doses 186 & 190 respectively from the public institutions.
- State has reported 1 cases of Measles.

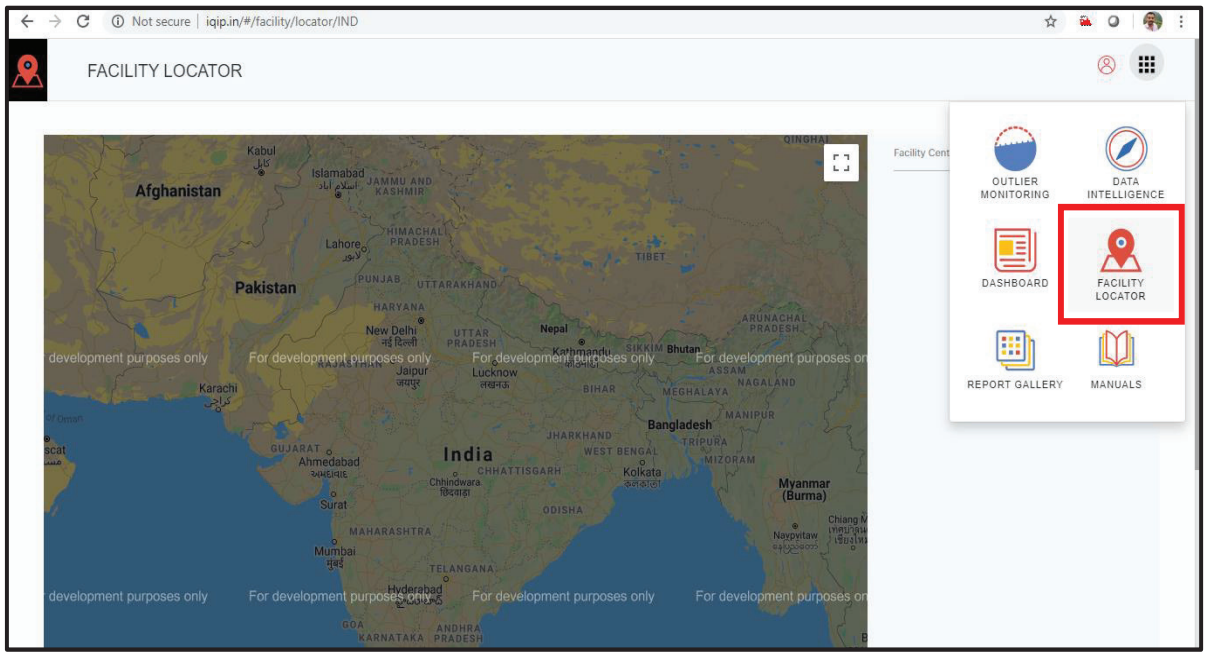
ANDHRA PRADESH

- Hep B birth dose was not given to 17% of institutional deliveries.

2.3.4 Facility Locator

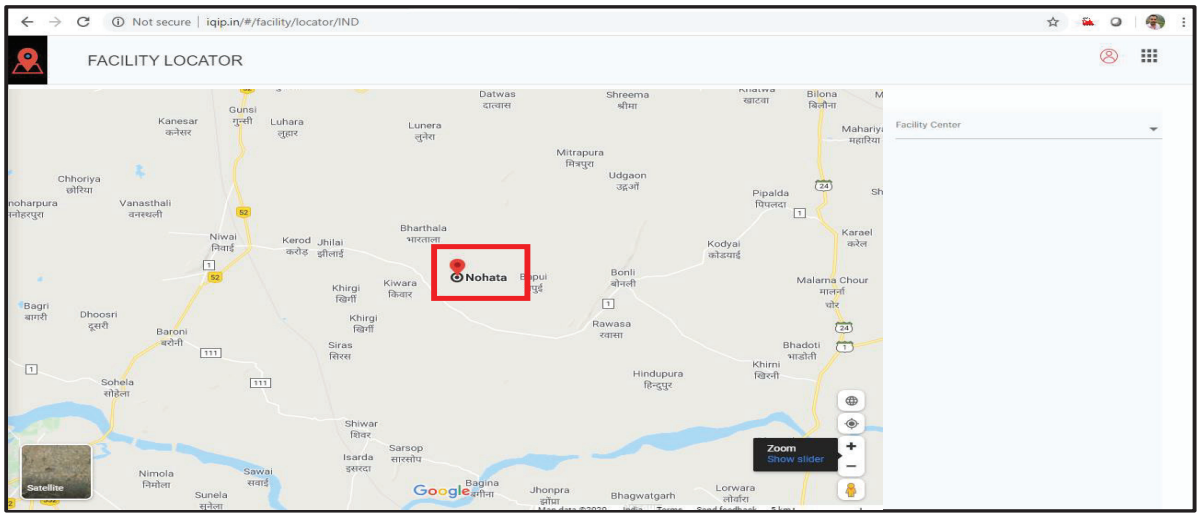
This section of the user manual shows that how this facility allows users to locate any health facility of the country / selected area using the geo-location of the health facility. Geo-location refers to the identification of the geographic location of the health facility. To locate any of the health facility, user needs to click on the facility locator module under the navigation button, which is shown in the below picture. (Figure 33)

Figure 33: Depicting the path for Facility Locator



The screenshot below displays an example of facility locator for imaginary health facility (dummy representation). A database in MySQL stores information about individual health facility, like the facility name, address and geographic coordinates. The map uses an XML file that acts as an intermediary between the database and the map. (Figure 34)

Figure 34: Depicting the location of a health facility based on Geo Coordinates



When the user enters the required information of the health facility, this option retrieves information from the database, and adds markers to the map for the selected health facility. A user can click the markers to display info windows with health facility information.

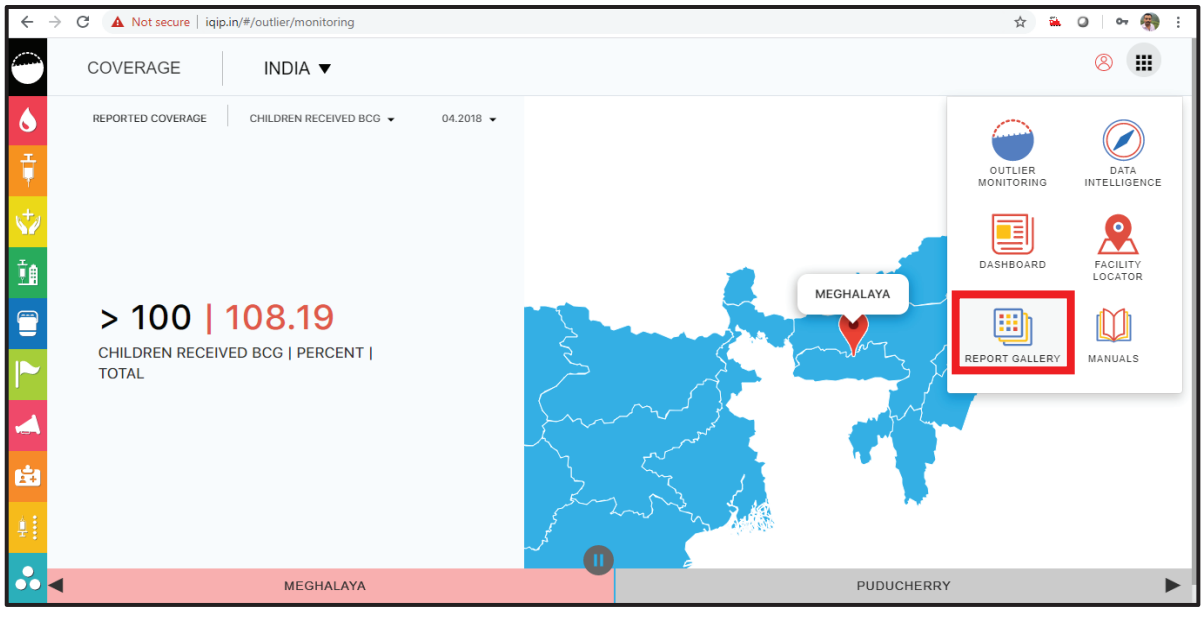
This feature will be completely activated as and when Geo-coordinates of health facility will be available.

2.3.5 Report Gallery

Report gallery is collection of objects available to user in addition to the graphs and charts provided in Data Intelligence Module. Basically, this module allows the user to use reports and their element which are not readily available in other modules. The control of this module has been kept with the administrator of this tool. User needs to submit the request to the administrator on iqiphelp@gmail.com for any specific kind of visualization or different permutation, combination of indicators.

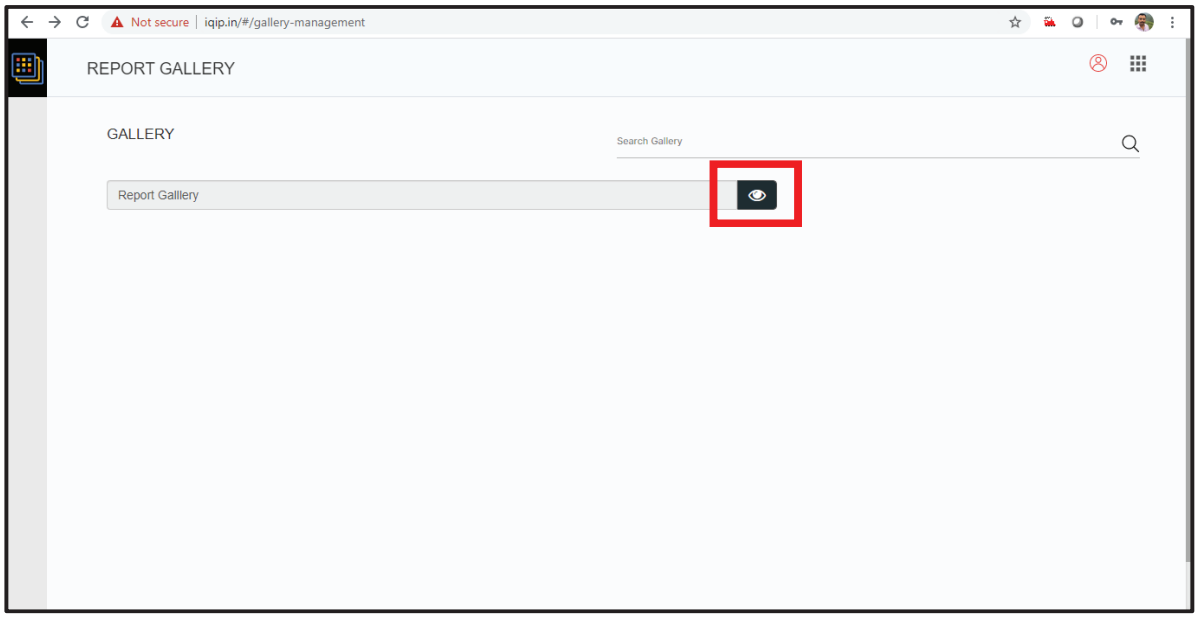
Users can access the report gallery module by clicking the report gallery in the navigation button as shown in picture below. (Figure 35)

Figure 35: Depicting the path of Report Gallery



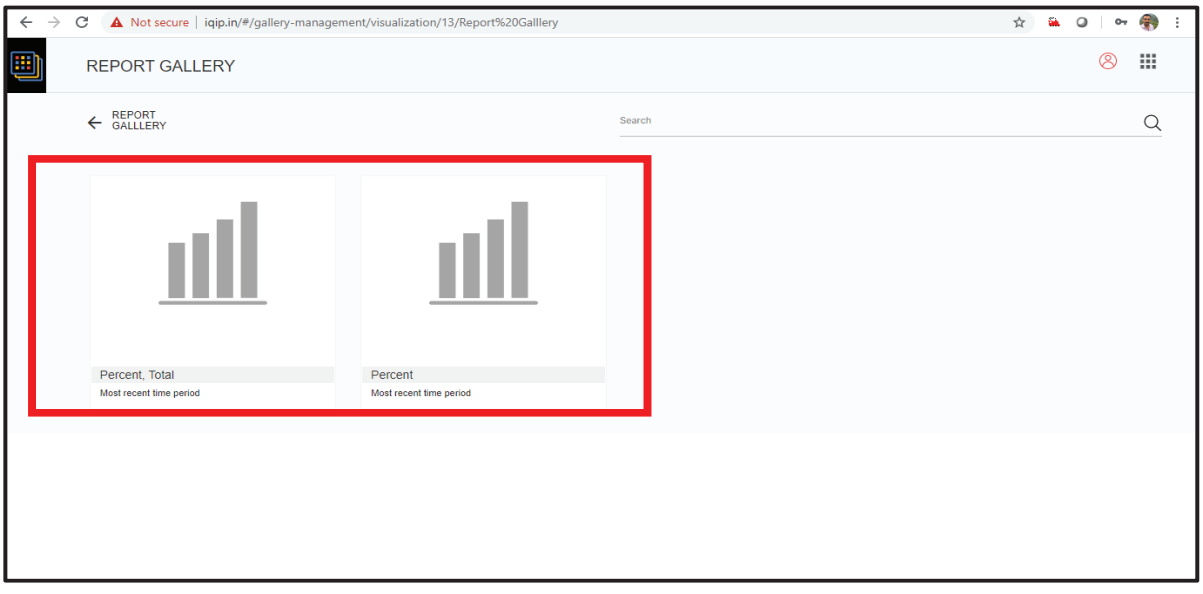
By clicking on the report gallery, the first page of this module will appear which has all the visualization stored in the gallery by the system administrator. User needs to click on the icon highlighted in the picture to access all the stored visualizations (Figure 36)

Figure 36: Icon to display all the stored template in Report Gallery



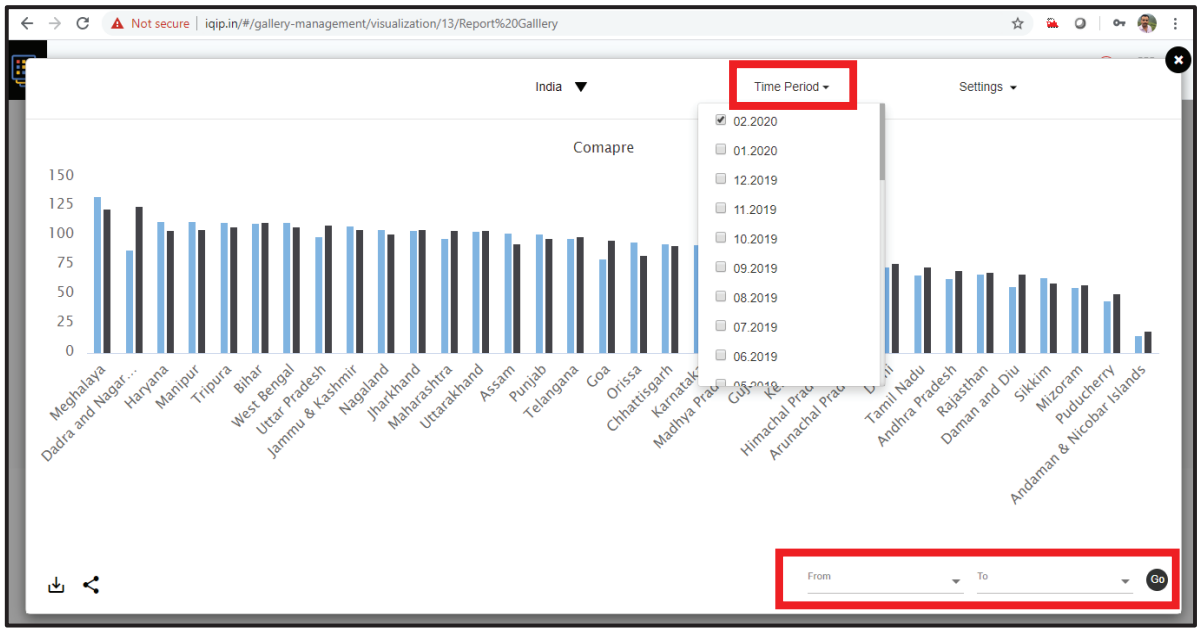
By clicking on the above shown icon, all the stored visualizations will get appeared. Users need to select whichever option they want to use. For Example, in the below mentioned picture, system administrator has stored some of the visualization options. (Figure 37).

Figure 37: Thumbnails of all stored templates in Report Gallery



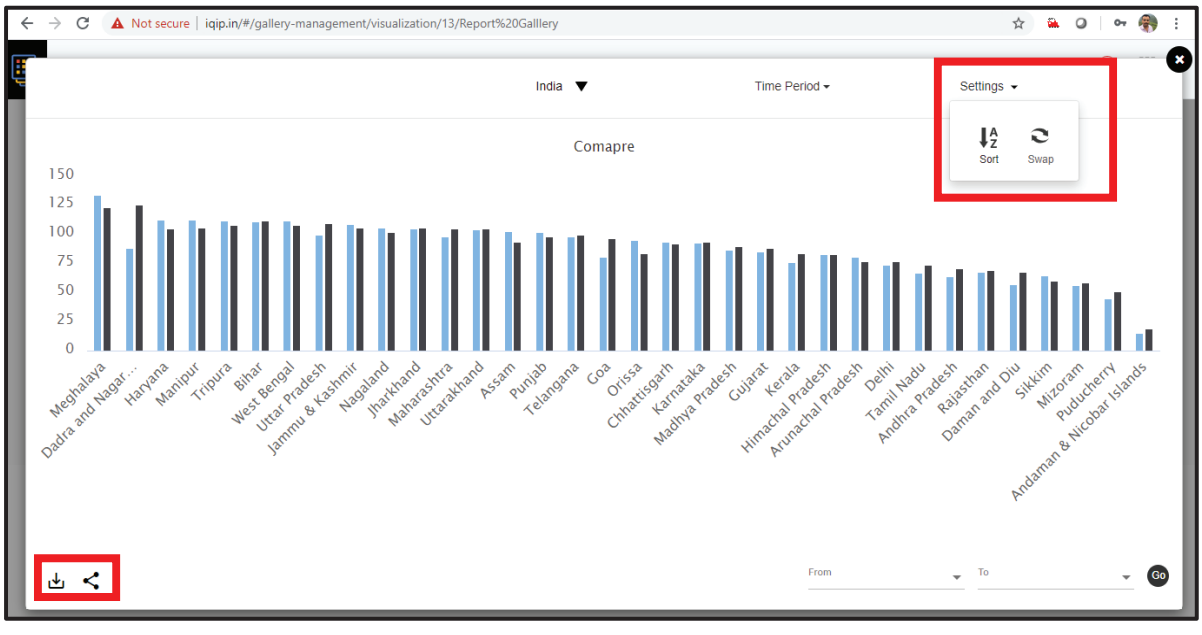
And by clicking on one of them, it provides the comparison of Penta1 & Penta3 coverage for all the states/districts/blocks based on the area selection. User would have the option to select the specific month by clicking on time period and for a cumulative period, select the period from the bottom section of the image as highlighted in the picture. (Figure 38)

Figure 38: Comparison of indicators by month & Cumulative



User can click on sort option in setting drop down menu to sort the displayed chart and can swap the chart data (X-Axis to Y-Axis) by clicking on the swap option. The displayed image / chart can be downloaded for further use and same can be shared on social media like Facebook & Twitter as shown below. (Figure 39)

Figure 39:Depicting swapping, downloading and sharing options



2.3.6 Manuals

Manuals module includes User Manual, Frequently Asked Question (FAQ), Training Package (presentation) and Practical Exercises.

2.3.6.1 User Manual

A user manual is a technical document with a specific purpose: to help any user to understand the functionalities of the portal without expert assistance.

The user manual of this web tool depicts details of each and every function of this tool in an elaborative manner so that user does not face any difficulty during the use of this tool. User can view and download the user manual of the tool by clicking the manuals module as shown in the picture below. (Figure 40 and 41)

Figure 40: Depicting the path of Manuals module

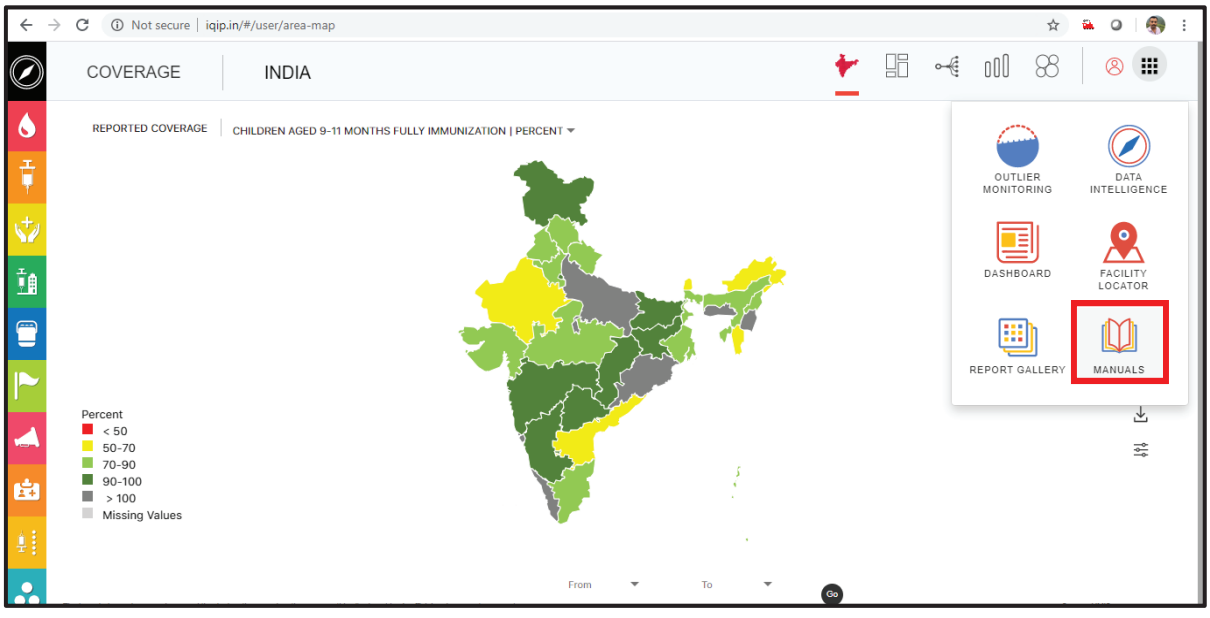
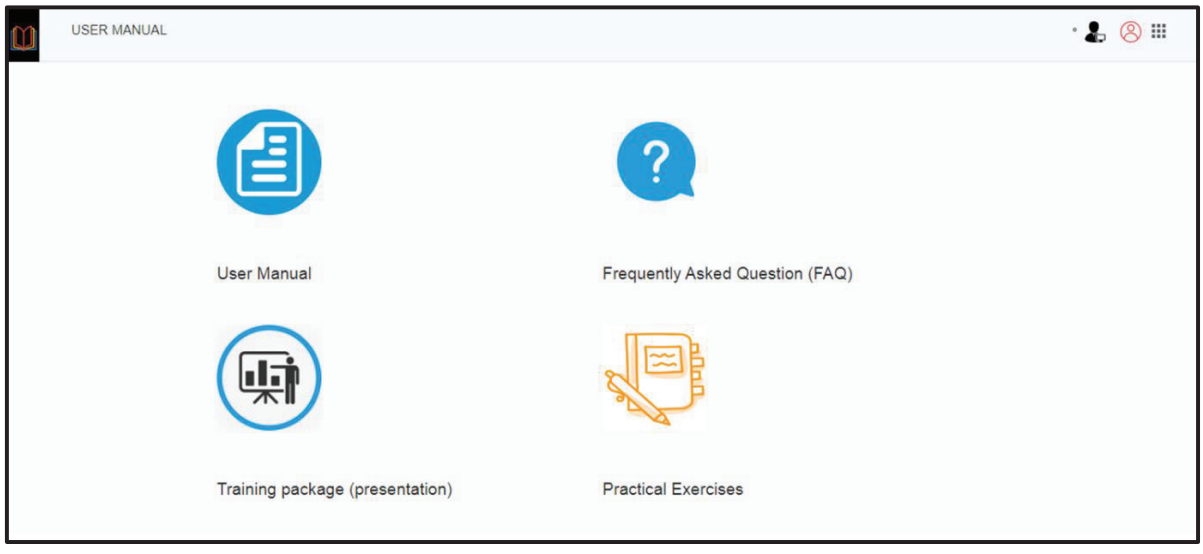


Figure 41: Depicting the contents of Manuals module



2.3.6.2 Frequently Asked Question (FAQ)

FAQ is a list of questions and answers relating to iQIP, giving basic information to users about the tool. The purpose of a FAQ is to provide information on common user queries or concerns. Most of the frequently asked queries are answered in FAQ. User is encouraged to read FAQ for any issues faced while using the tool.

2.3.6.3 Training Package (Presentation)

A training package in the form of presentation (slide decks) will be made available in the tool. The presentation will guide the user to understand iQIP in much simpler way by explaining functionality and features of every modules in interactive manner. This package will be useful specially during conduct of orientation training of the users in the states/districts.

2.3.6.4 Practical Exercises

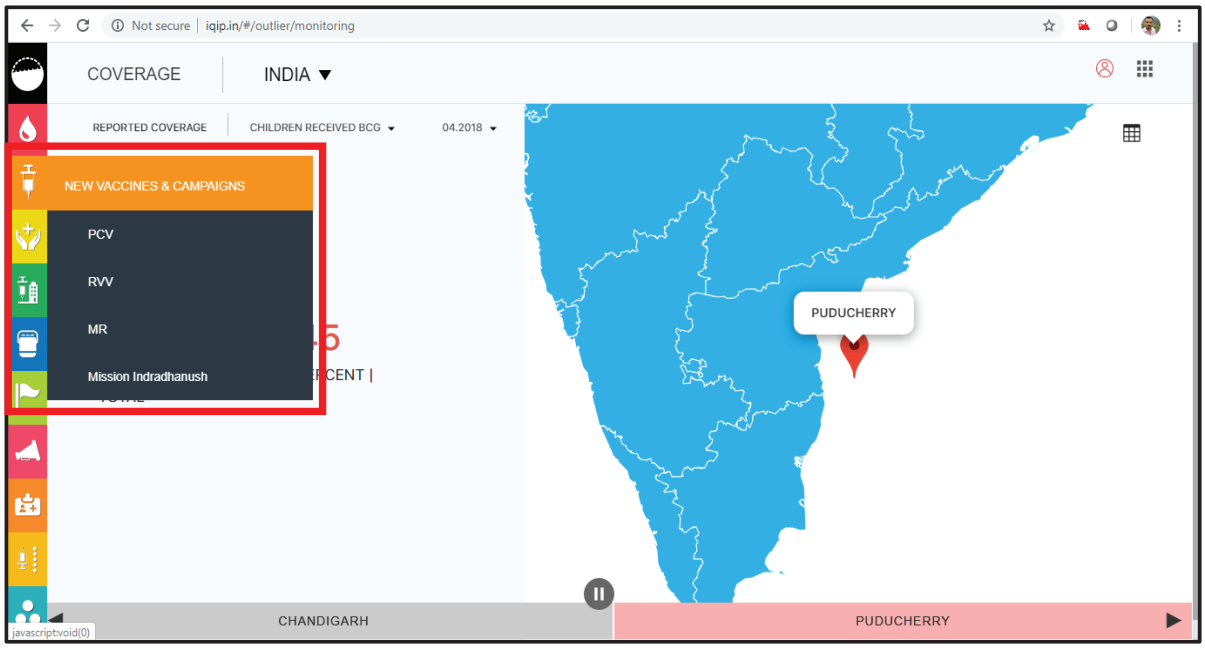
Practical exercise provides opportunity to the reader to test their skills and aptitude by practicing exercises on various modules of iQIP tool. Users are highly encouraged to take the practical exercises for better understanding of iQIP features and functionalities. The detailed exercise can help the user to assess their knowledge by cross checking step-by-step solutions provided at the end of exercises.

3. OTHER IMMUNIZATION RELATED DATA

iQIP has provision of pushing various immunization data and dynamically generate graphs and charts with available data sources. Left vertical bar provides menu for data sources. Currently iQIP focus on reported coverage data of HMIS (month-wise and cumulative). (Figure 42)

The tool is being provisioned to include other data sources of monitoring data, evaluated coverage, new vaccine and campaign data, AEFI data, urban immunization, IMI etc.

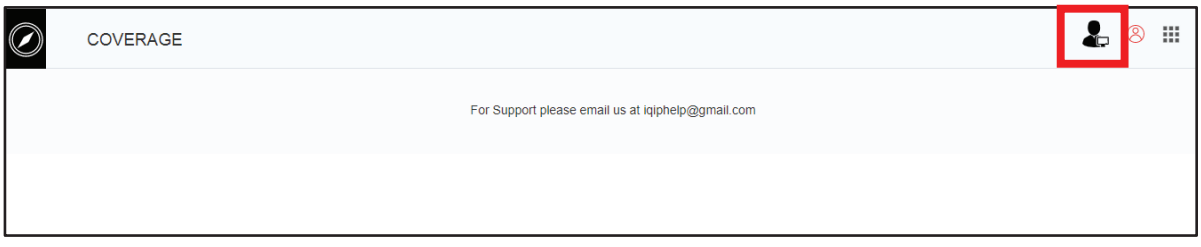
Figure 42: Displaying the other immunization related data points



Support

iQIP users can take support for any query, doubt or clarification by clicking on support icon to view contact details as shown in the picture below (Figure 39).

Figure 43: Depicting support option



The user can share their queries/ clarifications over email to iqiphelp@gmail.com for support.

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