

DATA EXPLORER USER GUIDE



Welcome to the DATA EXPLORER tool on the WHO Western Pacific Health Data Platform!

This platform has a tool that is intended to help you easily visualize health and socioeconomic data for countries and areas in the Western Pacific Region to identify patterns and trends. You can access the Data Explorer Tool through the "DATA EXPLORER" page on the Health Data Platform site (<https://data.wpro.who.int/data-explorer-2>).

World Health Organization
Western Pacific Region

Western Pacific Health Data Platform

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Data Explorer

BE A DATA EXPLORER

DATA EXPLORER allows you to **access, visualize and download data** on various health and non-health topics for countries and areas of the Western Pacific Region.

Enter DATA EXPLORER

Steps to use DATA EXPLORER

- Step 1**
Select Indicators
You can search and select any indicators from multiple databases.
- Step 2**
Select Countries
You can select countries and areas of the Western Pacific Region.
- Step 3**
Select Years
You can select any year range for which data are available.
- Step 4**
Then Explore
You can explore data using various charts, maps, data table and pivot table.

The Data Explorer Tool comprises the three following key sections for exploring, visualizing and downloading data:
I. "Parameters" — II. "Manage selections" — III. "Data tables and data visualizations"

Each of these three tabs has a little white arrow on the right: clicking on it allows you to get a better view by expanding, or collapsing, one or two of the three panels.

WHO staff can log in with their own WIMS ID and password to save their work on the Data Explorer.

The screenshot displays the Western Pacific Health Data Platform: Data Analytics Tools interface. The top navigation bar is divided into three sections: I. PARAMETERS, II. MANAGE SELECTIONS, and III. DATA TABLES AND DATA VISUALIZATIONS. The 'Parameters' section on the left features a search bar and a list of indicators under 'List All Indicators', including categories like Global Health Observatory, Vaccines, HIV, Leprosy, Malaria, Mortality, Neglected diseases, Tuberculosis, and World Bank data. The 'Manage Selections' section in the middle has a 'Clear All Parameters' button and dropdown menus for 'Indicators', 'Countries/Areas', and 'Years'. The 'Data Tables and Data Visualizations' section on the right shows 'Required Parameters' with three prompts: 'Please choose at least 1 INDICATOR.', 'Please choose at least 1 COUNTRY.', and 'Please choose at least 1 YEAR.'. Below these is a 'Download Users Guide' button with a book icon and a 'Data Explorer: Recommended Use' section containing three numbered tips for optimal performance.

DATA EXPLORER TOOL: USER GUIDE

I. PARAMETERS

Starting exploration and visualization

To start exploring and visualizing data, go to the "Parameters" tab, and then perform the following three actions:

- 1 Go to the **Indicator** tab and select the health indicator category you want.
- 2 Go to the **Country** tab and select the countries/areas for which you want to see the data plotted.
- 3 Go to the **Year** tab and select the years (or year range) for which you want to see the data plotted.

The screenshot displays the Data Explorer tool interface. The 'Parameters' tab is active, showing three sections: 'Indicator', 'Country', and 'Year'. The 'Indicator' section is highlighted with a red circle and the number 1. The 'Country' section is highlighted with a red circle and the number 2. The 'Year' section is highlighted with a red circle and the number 3. The 'Country' section shows a list of countries/areas, and the 'Year' section shows a list of years. The main visualization area shows a line chart for 'Hib3' (EP: Immunization Coverage) and a table for 'HIV: Adult (15-49) prevalence (%) - HIGH ESTIMATE, by year'. The chart shows data for various countries from 2017 to 2019. The table shows data for Australia.

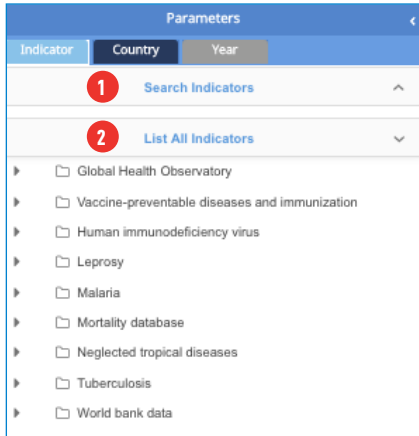
Country/Area	2017	2018	2019
Australia	~95	~95	~95
Brunei Darussalam	~95	~95	~95
Cambodia	~95	~95	~95
Cook Islands	~95	~95	~95
Fiji	~95	~95	~95
French Polynesia	~95	~95	~95
Hong Kong SAR (China)	~95	~95	~95
Kiribati	~95	~95	~95
Japan	~95	~95	~95
Malaysia	~95	~95	~95
Marshall Islands	~95	~95	~95
Micronesia (Federated States of)	~95	~95	~95
Mongolia	~95	~95	~95
Nauru	~95	~95	~95
New Zealand	~95	~95	~95
Other countries	~40-80	~40-80	~40-80

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I. PARAMETERS

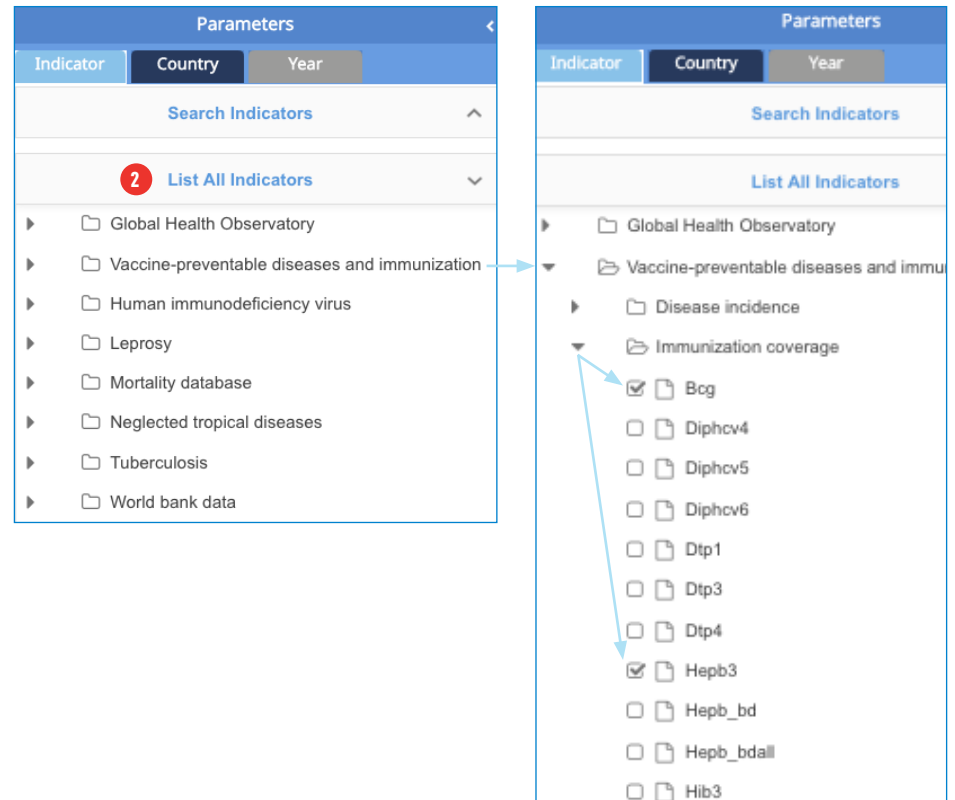
Selecting "Indicator"

Go to the **Indicator** tab to search the indicator(s) of interest through Steps 1 or 2 outlined below.



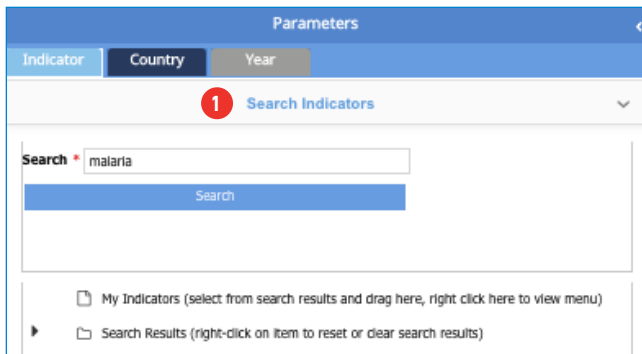
2 "List All Indicators"

Check the boxes for the indicators you want to plot. You can select all the indicators to explore for now, or later choose additional ones, e.g. vaccine-preventable diseases, e.g. BCG, HepB3



1 "Search Indicators"

Enter the name of your indicator, e.g. malaria

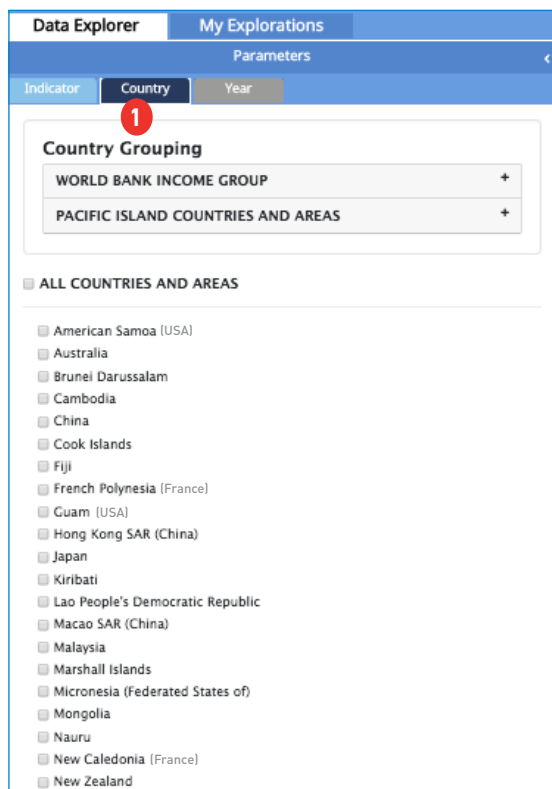


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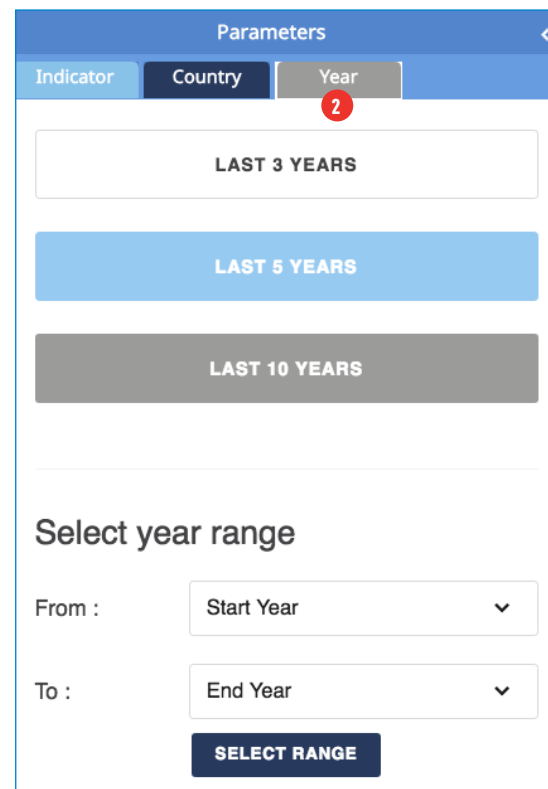
I. PARAMETERS

Selecting "Country" and "Year"

Go to the **Country** tab and to the **Year** tab to select the country(ies) and year(s) of interest.



① Select the countries or areas for which you want to see the data plotted.



② Select the years or range of years for which you want to see the data plotted.

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II. MANAGE SELECTIONS

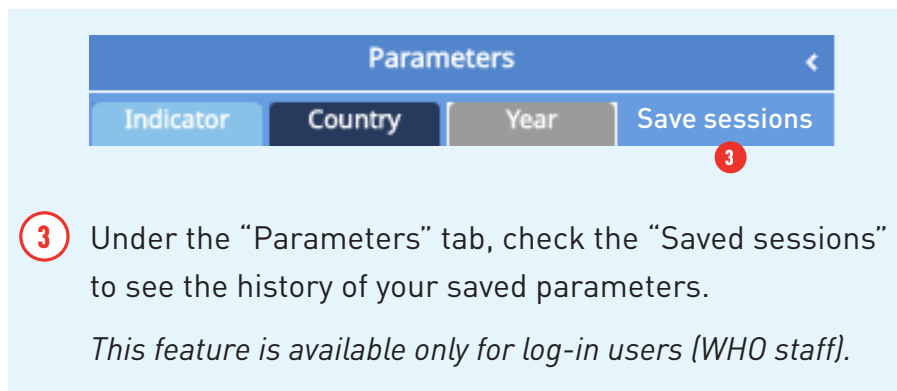
You can review your choices made in "Parameters" (Indicator/Country/Year") under "Manage Selections".

From the "Manage selections" tab, you can add or remove items.



1 You can add/delete any item showing under "Indicators", "Countries/Areas" or "Years".

2 Click on "Save selections" if you want to save the new parameter selections into your account. *This feature is available only for log-in users (WHO staff).*



3 Under the "Parameters" tab, check the "Saved sessions" to see the history of your saved parameters.

This feature is available only for log-in users (WHO staff).

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III. DATA TABLES AND DATA VISUALIZATIONS

Go to the **Data Tables and Data Visualizations** tab to visualize the data for the indicators you have selected.



Do not forget to scroll down to view the charts for all of the indicators you had selected.

- 1 Click on any of the tabs in this panel to visualize your data as:
- A Table
 - B Charts
 - C Maps
 - D Metadata
 - E Pivot Table
 - F API & Dashboard Templates

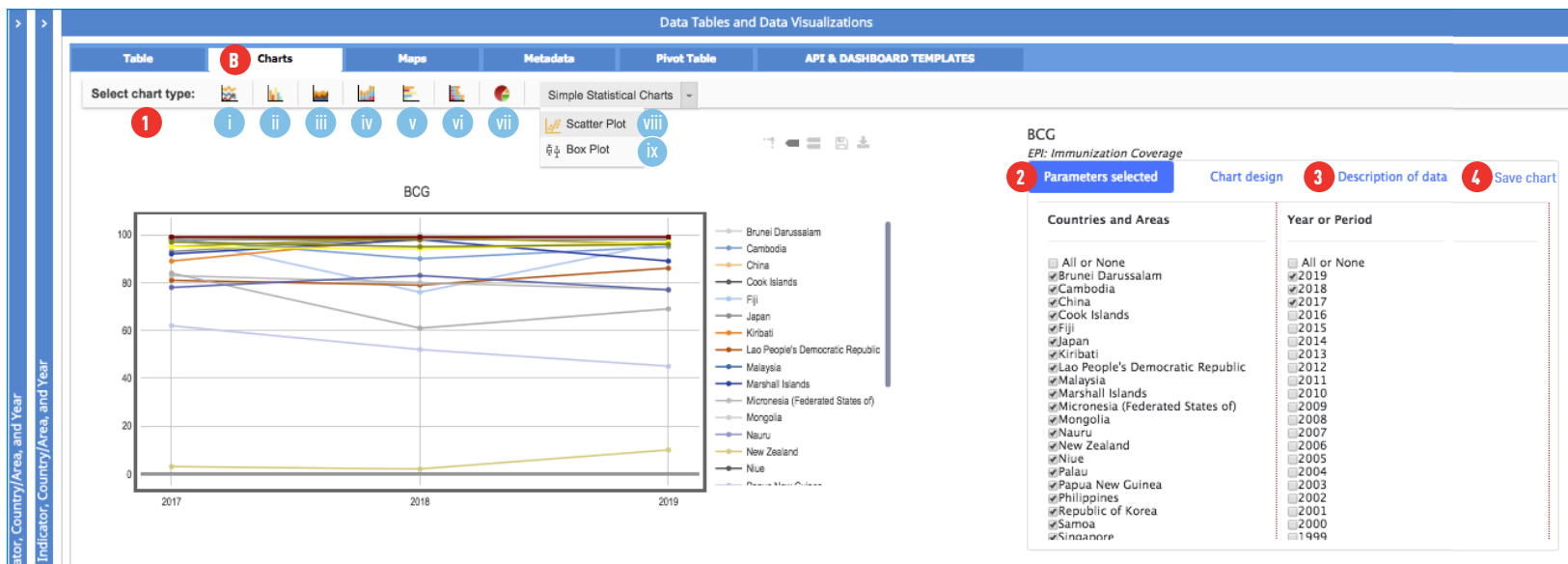
- B In this example, **Charts** is selected and a line chart is displayed by default. If you have selected more than one indicator, charts will be displayed one after the other.

INDICATOR	COUNTRY	2017	2018	2019
BCG	Brunei Darussalam	99	99	99
BCG	Cambodia	98	90	95
BCG	China	99	99	99
BCG	Cook Islands	99	99	99
BCG	Fiji	99	76	97
BCG	Japan	93	99	99
BCG	Kiribati	89	99	99
BCG	Lao People's Democratic Republic	81	79	86
BCG	Malaysia	98		99
BCG	Marshall Islands	92	98	89
BCG	Micronesia (Federated States of)	83	80	77
BCG	Mongolia	99	100	99
BCG	Nauru	99	99	99
BCG	New Zealand	3	2	10
BCG	Niue	99	99	99
BCG	Papua New Guinea	62	52	45
BCG	Philippines	84	61	69
BCG	Republic of Korea	98	98	98
BCG	Samoa	95	99	96
BCG	Singapore	99	98	
BCG	Solomon Islands	78	83	77
BCG	Tonga	99	99	99
BCG	Tuvalu	99	99	99
BCG	Vanuatu	95	94	97
BCG	Viet Nam	97	95	96
Estimated HIV in incident TB (percent)	American Samoa	0	...	...
Estimated HIV in incident TB (percent)	Australia	2.1	1.8	1.4
Estimated HIV in incident TB (percent)	Brunei Darussalam	0.84	1.2	0.83

A View your data under “TABLES” and download the files as:

1 .CSV (comma separated value) file, or

2 .XLS (Excel) file



- 1 Under "Charts", you can select the chart types, choosing among the icons (from left to right) for:
 - i) Line graph, ii) Vertical bar graph, iii) Area chart, iv) Vertical stacked bar graph, v) Horizontal bar graph, vi) Horizontal stacked bar graph, vii) Pie chart, viii) Scatter plot, and ix) Bar plot.
- 2 **Parameters selected** Under this card, you can also change the parameters (i.e. country, year) for each selected indicator.
- 3 **Description of data** Clicking on this tab will provide metadata for the indicator(s) selected.
- 4 **Save chart** Save your work under this card. Saved charts can be found under the **My Explorations** tab in the main top ribbon. *This feature is available only for log-in users (WHO staff).*

1 You can select "Scatter plot" and "Box plot" by clicking on "Simple Statistical Charts".

2 You can choose various options for your visualizations by clicking on these icons.

Toggle Spike Lines

Show closest data on hover

Compare data on hover

Download or Save as an image (PNG)

Download or Save as Vector Graphic (SVG)

3 Clicking on the **Chart design** tab allows you to define various features for your chart, including axes ranges and labels.

Select the indicators you want to "Plot By" and "Plot Against (compare)" by selecting the indicators listed in the drop down menus against those titles. The drop down menus list all the indicators you had previously selected. If the indicator you want is not on the list, then go back to the "Indicator" tab (within the "Parameters" tab) to add the indicator(s) of choice.

The second indicator will be added to the Y-axis by default. The default settings do not allow for adjusting the X-axis and Y-axis ranges. If you want to switch the X-axis and Y-axis, you would need to start from the first step for creating a chart and select the indicator you want to see on the X-axis.

Do not forget to scroll down to view more charts for all of the indicators you had selected that will display below one after the other.

C View and download data under “**Maps**” for a choropleth map.

- 1** The **Map options** card provides all sorts of options to design your map. You can define chart width and height and select colours.
- 2** Clicking on the **Description of data** tab will provide metadata for the indicator(s) selected.

The screenshot displays the 'Data Explorer' interface with the 'Metadata' tab selected. The table below shows the following data:

Indicator	Short name	Data Type	Topics	Rationale	Definition	Disaggregation/Code List	Methods of Estimation	Data Sources	Link to Data and/or Metadata
BCG	EPI_IC_BCG	...	Immunization Coverage	...	BCG	...	...	...	https://www.who.int/immunization/monitoring_surveillance/data/en/
Estimated HIV in incident TB (percent)	...	...	Estimates	...	Estimated HIV in incident TB (percent)	...	...	...	...
HepB3	EPI_IC_HepB3	...	Immunization Coverage	...	HepB3	...	...	...	https://www.who.int/immunization/monitoring_surveillance/data/en/
HIV: Adult (15-49) prevalence (%) - HIGH ESTIMATE, by year	adult_prevalence_high_y	Percentage	HIV: Estimate By Year	...	HIV: Adult (15-49) prevalence (%) - HIGH ESTIMATE, by year	...	...	UNAIDS 2019 estimates	https://aidsinfo.unaids.org/

D Under the “Metadata” tab, you can view descriptions/definitions for the indicator(s) you selected or download the files as:

1 .CSV (comma separated value) file, or

2 .XLS (Excel) file

At the bottom of the window (as for “Tables” or “Pivot table”) you can select:

3 how many entries you want to display, or

4 which page you want to access

E The “Pivot table” tab allows you to sort your data around the following categories: “Indicator”, “Year”, “Valuetype” (numeric value”, “value”, “null”), “ISO” or “Country” (you can filter and select the chosen values from the clickable little white arrow on each side of the tabs). Note: the heatmap algorithm for the coloring is automatic.

You can drag the various categories towards one of the three following zones:

- 1** The grey panel allows the category(ies) dragged up there not to appear in the table
- 2** The blue horizontal panel, just below the grey one, contains the category(ies) you wish to display in columns
- 3** The blue vertical panel, on the left of the window, contains the category(ies) you wish to display in rows

INDICATOR	YEAR	NumericValue-AUS-Australia	NumericValue-BRN-Brunei Darussalam	NumericValue-CHN-China	NumericValue-COK-Cook Islands	NumericValue-FJI-Fiji	NumericValue- FSM-Micronesia (Federated States of)	NumericValue-JPN-Japan	NumericValue-KHM-Cambodia	NumericValue-KIR-Kiribati	NumericValue-KOR-Republic of Korea	NumericValue-LAO-Lao People's Democratic Republic	NumericValue-MHL-Marshall Islands	NumericValue-MNG-Mongolia	NumericValue-MYS-Malaysia
BCG	2017	99	99	99	99	83	93	98	89	98	81	92	99	98	
BCG	2018	99	99	99	76	80	99	90	99	98	79	98	100		
BCG	2019	99	99	99	99	97	77	99	95	99	98	86	89	99	
Estimated HIV in incident TB (percent)	2017														
Estimated HIV in incident TB (percent)	2018														
Estimated HIV															

E View and sort your data under the “Pivot table” tab

1 Chose to display the data under as: “Table“, “Table barchart“, “Row heatmap“, “Column heatmap“, or “Download“ the data as:

- .CSV (comma separated data) file, or
- .XLS (Excel) file

2 Click on either of the two arrows to achieve ascending or descending order

The screenshot shows the 'API & DASHBOARD TEMPLATES' section of the Data Explorer tool. It is divided into two main parts:

1 Available APIs for your selected data

Form 1 API Link (JSON for R, PowerBI) Disaggregations (if available) such as age group, sex and others are represented as separate column or fields	https://data.wpro.who.int/openAPI/JSON/87b1914a64b02361971817798725ae8
Form 2 API Link (JSON for R, PowerBI) Disaggregations (if available) such as age group, sex and others are represented by individual row or data element	https://data.wpro.who.int/openAPI/JSON/b48d31cbb697c9659ec786ca2b9356e
Metadata & Selected Parameters	https://data.wpro.who.int/openAPI/JSON/01e2599e604f02a580e11dd927bb2e3c

2 Dashboard Templates that uses the JSON API

NAME	DESCRIPTION	TYPE	Required Libraries	
JSON to R Data Frame : Datavalues	Convert the API results into R dataframe containing the YEARS, INDICATORS, COUNTRIES and DATAVALUES.	R	jsonlite, curl	Download
JSON to Python/Pandas Data Frame: Datavalues	Convert the API results into dataframe containing the YEARS, INDICATORS, COUNTRIES and DATAVALUES using Python/Pandas	Python	pandas, json	Download
JSON to R Data Frame: Datavalues & metadata	Convert the API results into R dataframe containing the YEARS, INDICATORS, COUNTRIES and DATAVALUES.	R	jsonlite, curl	Download
JSON to Python/Pandas Data Frame: Datavalues & metadata	Convert the API results into dataframe containing the YEARS, INDICATORS, COUNTRIES and DATAVALUES using Python/Pandas	Python	pandas, json	Download
Data Explorer: Table, Metadata and Pivot Table	Rshiny application that uses the datavalues and metadata API. Current functionality includes data tables, metadata and pivot table. Charts and maps will be available soon. Click here to see a sample app using disease incidence	R	jsonlite, curl, shiny, shinydashboard, DT, shinyjs	Download

1 API for your selected data: follow the links

2 Dashboard templates: download

The screenshot shows a data table in the Data Explorer interface. The table has columns for Indicator Code, Indicator, Country, ISO3, Year, Value Type, and Value. The data is filtered to show 10 entries.

Indicator Code	Indicator	COUNTRY	ISO3	YEAR	VALUE TYPE	VALUE
EPI_DI_CRS	Congenital Rubella Syndrome	Australia	ALIS	2017	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Australia	ALIS	2018	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Australia	ALIS	2019	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Brunei Darussalam	BRN	2017	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Brunei Darussalam	BRN	2018	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Brunei Darussalam	BRN	2019	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Cook Islands	COK	2019	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Micronesia (Federated States of)	FSM	2017	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Micronesia (Federated States of)	FSM	2018	NumericValue	0
EPI_DI_CRS	Congenital Rubella Syndrome	Micronesia (Federated States of)	FSM	2019	NumericValue	0