



INTEGRATE HEALTH

DHIS2 API tips for non-programmers

More information is available from:

<https://docs.dhis2.org/2.22/en/developer/html/ch01.html>

Getting Started

1. All URLs to the API start with:

- <https://togo.dhis2.org/dhis/api/>

substitute **your country**

2. To see all resources (categories of data) in the system:

- <https://togo.dhis2.org/dhis/api/resources>

3. Change the URL to select a list of desired resources:

- <https://togo.dhis2.org/dhis/api/indicators>
- <https://togo.dhis2.org/dhis/api/dataElements> (the data that goes into calculating indicators)
- <https://togo.dhis2.org/dhis/api/dataElementGroups>
- <https://togo.dhis2.org/dhis/api/organisationUnits> - (clinics, prefectures, regions)
- <https://togo.dhis2.org/dhis/api/organisationUnitGroups>

4. Add `?paging=false` to the end of a URL to see a full list of a specified resource (by default, the system only shows the first 25 records). This is useful when you want to download data.

- Ex: <https://togo.dhis2.org/dhis/api/indicators?paging=false>

5. Add `.csv` to download data directly to your computer. The `.csv` goes before the `?paging=false`

- Ex: <https://togo.dhis2.org/dhis/api/indicators.csv?paging=false>

6. Add a backslash and the ID of a resource to get more detailed information, including calculation methodologies, on a specific resource. For example, to get a detailed description of indicator ID h2WK7dkENdu:

- <https://togo.dhis2.org/dhis/api/indicators/h2WK7dkENdu>

Organisation Units

Organisation Units represent the Country, Region, District and clinic and are organised by level - Country (1), Region (2), District (3), clinic (4).

1. To see a list of all organisation units:

- <https://togo.dhis2.org/dhis/api/organisationUnits?paging=false>

2. To filter organisation units by level 4. Add the filter after the question mark.

- <https://togo.dhis2.org/dhis/api/organisationUnits?filter=level:eq:4&paging=false>

3. You can also specify which fields are returned in a query. For example, if you want the id, level, name, path and coordinates, one would include:

- <https://togo.dhis2.org/dhis/api/organisationUnits?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates>

4. The path is the hierarchy of the Organization Unit - e.g. country ID/Region ID/District ID. You can also return the name and ID of the Organization Unit's parent (e.g. District) and the grandparent (e.g. Region). This can be really helpful if you want to create a table of all level four Organization Units, their District and Region.

- [https://togo.dhis2.org/dhis/api/organisationUnits?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates\[id,name,parent\]](https://togo.dhis2.org/dhis/api/organisationUnits?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates[id,name,parent])

5. Add the .csv to download a table

- [https://togo.dhis2.org/dhis/api/organisationUnits.csv?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates\[id,name,parent\]](https://togo.dhis2.org/dhis/api/organisationUnits.csv?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates[id,name,parent])

6. Or add .json to return a string with all of the information well organized (useful for our Alteryx API)

- [https://togo.dhis2.org/dhis/api/organisationUnits.json?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates\[id,name,parent\]](https://togo.dhis2.org/dhis/api/organisationUnits.json?filter=level:eq:4&paging=false&fields=id,level,name,path,coordinates[id,name,parent])

7. In addition, Organization Units are also part of Organization Unit Groups. These specify the type of clinic (e.g. public or private, hospital or USP, etc).

- <https://togo.dhis2.org/dhis/api/organisationUnitGroups>

Querying Specific Data Points

1. In addition to the meta-data, you can also query specific data points.
 - a. First, update the URL to your country's API endpoint. In Togo, this required adding /api/29/analytics. Then add dimension= to specify specific dimensions that you want (ou: organization unit IDs, dx: indicator IDs, pe: time period).
 - b. Use % between IDs to use more than one dimension
 - c. In the example below:
 - i. Organization Unit IDs are highlighted in purple
 - ii. The time period is highlighted in green
 - iii. The indicator IDs are highlighted in yellow

https://togo.dhis2.org/dhis/api/29/analytics.csv?dimension=ou:PgoyKuRs20z%3BObvNuNoKj46%3BKoA5gCxrkr%3BgYM7EHlcVxv%3Bris2jRhudfy%3BHRorwGFFFR6%3BS99zHZFkiKU%3BPLqoLdWIKg9%3BPJUDnUoUOXC%3Bw6YTNjy898U%3BQRtRvWW1VBL%3BUbc4fWZAAz9%3BkCD9I4Qx2WP%3BeEQIxlvsWib%3BoQandBcJt22%3Btltz80zDS85%3BRDuBzY0i1As%3BBY9niUgBS0k%3BPYeCQPNnSAn%3BeJtIZ3ZMkfH%3BWI3DehMC7KX%3Bk52TtOanhCc%3BSdrxZwN9YeK%3BcoB3NqYIMOW&dimension=pe:LAST_12_MONTHS&dimension=dx:URnDxZ1bvoK%3BwJwFD420Gn1%3BdU9I7ssqQuA&displayProperty=SHORTNAME

Indicator Dictionary Module

1. The Indicator Dictionary module allows you to search indicators by name. Each indicator has basic details, including definition, calculation, category, and date of creation. Additionally, you can use the Data Analysis and Trend Analysis tabs for a quick look at the data over time.

- <https://togo.dhis2.org/dhis/api/apps/Indicator-Dictionary/index.html>

A lot more documentation on the web API can be found online at <https://docs.dhis2.org/master/en/developer/html/webapi.html>.

We also used the application PostMan to construct API requests <https://www.getpostman.com/>