

# DHIS2 with OpenAPI

coming in DHIS 2.40

# Who talks to DHIS2?

- Web Apps
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**Data values**

This section is about sending and reading data values.

```
/api/dataValueSets
```

**Sending data values**

To send data values you can make a POST request to the following resource.

```
POST /api/dataValueSets
```

A common use-case for system integration is the need to send a set of data values from a third-party system into DHIS. In this example, we will use the DHIS2 demo on <http://play.dhis2.org/demo> as basis. We assume that we have collected case-based data using a simple software client running on mobile phones for the *Mortality <5 years* data set in the community of *Ngelehung CHC* (in *Badjia chiefdom, Bo district*) for the month of January 2014. We have now aggregated our data into a statistical report and want to send that data to the DHIS2 instance. The base URL to the demo API is <http://play.dhis2.org/demo/api>. The following links are relative to the base URL.

The resource which is most appropriate for our purpose of sending data values is the `/api/dataValueSets` resource. A data value set represents a set of data values which have a relationship, usually from being captured off the same data entry form. The format looks like this:

```

<dataValueSet xmlns="http://dhis2.org/schema/dxf/2.0" dataSet="dataSetID"
    completeDate="date" period="period" orgUnit="orgUnitID" attributeOptionCombo="aocID">
    <dataValue dataElement="dataElementID"
        categoryOptionCombo="cocID" value="1" comment="comment1"/>
    <dataValue dataElement="dataElementID"
        categoryOptionCombo="cocID" value="2" comment="comment2"/>
    <dataValue dataElement="dataElementID"
        categoryOptionCombo="cocID" value="3" comment="comment3"/>
</dataValueSet>
```

JSON is supported in this format:

```

{
    "dataSet": "dataSetID",
    "completeDate": "date",
    "period": "period",
    "orgUnit": "orgUnitID",
    "dataValues": [
        {
            "dataElement": "dataElementID",
            "categoryOptionCombo": "cocID",
            "value": "1",
            "comment": "comment1"
        },
        {
            "dataElement": "dataElementID",
            "categoryOptionCombo": "cocID",
            "value": "2",
            "comment": "comment2"
        },
        {
            "dataElement": "dataElementID",
            "categoryOptionCombo": "cocID",
            "value": "3",
            "comment": "comment3"
        }
    ]
}
```

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DHIS 2 Demo - Sierra Leone - Reports

Standard Report

## Reporting Rate Summary ?

Report organisation unit

- ▼ □ Sierra Leone
  - □ Bo
  - □ Bombali
  - □ Bonthe
  - □ Kailahun
  - **Kambia**
  - □ Kenema
  - □ Koinadugu
  - □ Kono
  - □ Moyamba
  - □ Port Loko
  - □ Pujehun
  - □ Tonkolili
  - □ Western Area

Show more options

**GET REPORT**

Successfully loaded the table ✓

Inspector Console Debugger Network Style Editor Performance Memory Storage Accessibility Application

Status Method Domain File Initiator Type Transferred Size Headers Cookies Request Response Timings Stack Trace Security

200	GET	play.dhis2.org	PMa2VCrupOd?fields=children[id]	138.aa6b2efe.chunk.js:2 (fetch)	json	511 B	161 B	Filter Headers	Block Resend
200	GET	play.dhis2.org	analytics.json?dimension=dx:lyLU2wR22tC.ACTUAL_REPORTS;lyLU2wR22tC.EXPECTED	138.aa6b2efe.chunk.js:2 (fetch)	json	1.10 kB	2.51 kB	GET https://play.dhis2.org/2.39.0.1/api/analytics.json?dimension=dx:lyLU2wR22tC.ACTUAL_REPORTS;lyLU2wR22tC.EXPECTED_REPORTS;lyLU2wR22tC.REPORTING_RATE;lyLU2wR22tC.ACTUAL_REPORTS_ON_TIME;lyLU2wR22tC.REPORTING_RATE_ON_TIME&dimension=ou:PMa2VCrupOd;r06ohri9wA9;qIRCo0MfuGb;xGMGhjA3y6J;QywtkxFudXrCjy5X4mP5XylLkbPmt60y0L;fIBemv1NfEc&columns=dx&rows=ou&tableLayout=true&hideEmptyRows=true&displayProperty=SHORTNAME&includeNumDen=false&filter=pe:201806	

Status 200 OK ?  
 Version HTTP/2  
 Transferred 1.10 kB (2.51 kB size)  
 Referrer Policy strict-origin-when-cross-origin

# Why a Formal API Descriptor?

- Documentation
- Client SDKs
- Governance
- Exploration

# API Descriptor Languages

- RAML
- OpenAPI
- API Blueprint
- WADL
- etc...

# OpenAPI

- Tooling
- Community
- Backed by industry leaders

# Stoplight

<https://dhis2.stoplight.io/docs/dhis2/>

# openapi.yaml

<https://play.dhis2.org/dev/api/openapi/openapi.yaml>

# Discussion

