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EID and Viral load API

Documentation

# Introduction

This document is meant to serve as a manual on the use of the eid and viral load api ver2.0. Users of viralload api ver1.0 will note some differences between ver1.0 and 2.0. For most of the data, it can be viewed directly from a browser. However, because the data being returned by the API is in JSON format, I would recommend using an application known as Postman or a similar application.

The format of routes for viralload and eid are the same in order to ease the learning curve.

**N.B.**

Viralload api ver1.0 is no longer supported.

# Definition of Terms

**Route:** This means a link e.g. <http://api.nascop.org/eid/ver2.0/national/summary/5/2016/2/2017/6>

**Parameter:** This is used to define what is given to the api in order to get the relevant data e.g. if data required is for the year 2016, then the year parameter should be 2016.

**Type:** This is a parameter that determines the way the data will be returned.

**Authentication:** This is a process whereby by passing credentials to the API, the user receives a token which should be passed as a header field in the request in order to get data. Tokens expire after 24 hours.

**Protected:** This is a route that requires authentication. The protected routes are those that return patient information for both eid and viralload.

**Post route:** In Postman, to the left of where you are prompted for a URL, there is a dropdown with GET written in capital letters. If you click it, there are several options that show up. Select POST.

**Request header:** Below where you are prompted for a URL, there is a list of tabs namely Authorization, Headers, Body… Select header to set a request header. Select body to set the body form data e.g. for authentication setting the email and password.

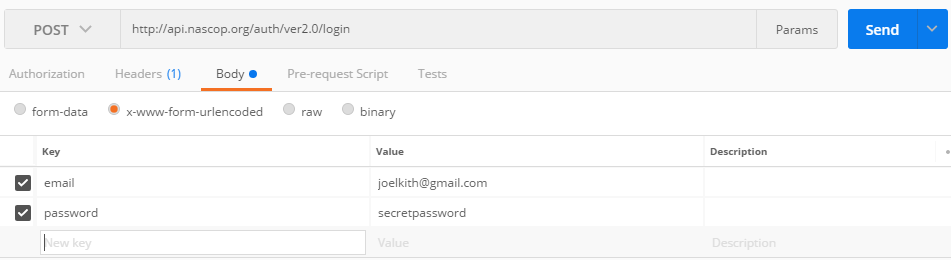
# Parameters

|  |  |  |
| --- | --- | --- |
| **Name of Parameter** | **Value** | **Meaning** |
| Type | 1 | Data for a specified year. |
|  | 2 | Data for each individual month in a specified year. |
|  | 3 | Data for a particular specified month in a specified year. |
|  | 4 | Data for a particular quarter. |
|  | 5 | Data for a specified date range. When type=5, the year and month will be used to set the lower limit of the range and ToYear and ToMonth will be used to set the upper limit of the range. |
| Year | Year value as four digits e.g. 2016. | Specifies the year of which the data should be returned. |
| Month | Month value 1-12 e.g. 01 and 1 are both acceptable for January.  If type is 4, then acceptable values are 1-4 (for each quarter). | Specifies the month of which the data should be returned. If the type is 1 or 2, this field is not necessary. |
| ToYear | Year value as four digits. | Necessary if type=5. It must be equal or greater than the year parameter. |
| ToMonth | Month value 1-12. | Necessary if type=5. If Year=ToYear, then ToMonth must be greater than Month. |
| County | MFL or DHIS code of the county. 0 will return data for all counties unless the route explicitly notes that it won’t. |  |
| Subcounty | MFL or DHIS code of the subcounty. 0 will return data for all subcounties unless the route explicitly notes that it won’t. |  |
| Partner | ID of the partner. 0 will return data for all partners unless the route explicitly notes that it won’t. |  |
| Facility | MFL or DHIS code of the facility. 0 will return data for the top facilities unless the route explicitly notes that it won’t. |  |
| Lab | ID of the lab. 0 will return data for all labs. |  |
| Patient ID | The ID of the patient. |  |

In the routes description below, anything enclosed in braces is a parameter e.g. {type} is the parameter type found in the table above.

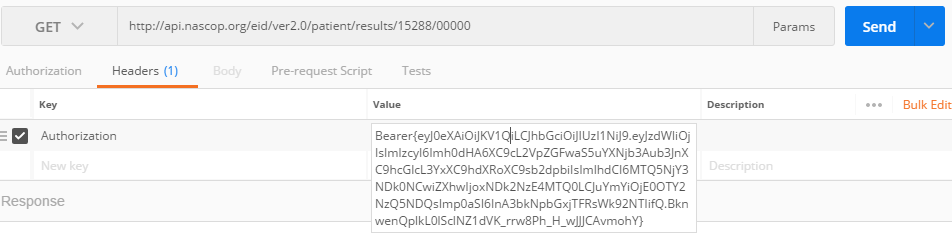
# Authentication

In order to access a protected route, you need to pass a token. The URL is <http://api.nacop.org/auth/ver2.0>. This one is a post request. It allows you to send form values. The body type is x-www-form-urlencoded and not the default form-data. For programmers, the API also accepts JSON formatted form data.



Above is an example of how to login.

Once you have your token, you need to pass it in the header as shown below.



The key is Authorization. In the Value field, type Bearer followed by opening and closing braces i.e. {} then copy paste the token in the braces e.g.

Bearer{eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWIiOjIsImlzcyI6Imh0dHA6XC9cL2VpZGFwaS5uYXNjb3Aub3JnXC9hcGlcL3YxXC9hdXRoXC9sb2dpbiIsImlhdCI6MTQ5NjY3NDk0NCwiZXhwIjoxNDk2NzE4MTQ0LCJuYmYiOjE0OTY2NzQ5NDQsImp0aSI6InA3bkNpbGxjTFRsWk92NTIifQ.BknwenQplkL0lSclNZ1dVK\_rrw8Ph\_H\_wJJJCAvmohY}.

## N.B.

Postman allows users to save requests. I would recommend you save the login request in order to save on the time required to get a new token. Also, save the requests for the protected routes. When the token expires, simply get a new token and copy paste it appropriately.

Another element is rate limiting. If you access the same route more than five times in a single minute, you will have to wait until the minute expires.

<http://api.nascop.org/vl/ver2.0/patient/national/5/2017/1/2017/4>

is however considered a different route from

<http://api.nascop.org/vl/ver2.0/patient/national/5/2017/1/2017/3>

in the context of rate limiting. This means one can use the same route repeatedly without the system locking you out as in normal circumstances one would use the same route with different parameter.

# Eid

This module deals with the eid data.

## National

This get data at the national level. The routes are:

<http://api.nascop.org/eid/ver2.0/national/summary/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains summary data like turnaround time

<http://api.nascop.org/eid/ver2.0/national/hei/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the hei data

<http://api.nascop.org/eid/ver2.0/national/hei_validation/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the hei validation data

<http://api.nascop.org/eid/ver2.0/national/age_breakdown/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the age breakdown data i.e. positives and negatives per age group

<http://api.nascop.org/eid/ver2.0/national/entry_point/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the entry point data

<http://api.nascop.org/eid/ver2.0/national/mprophylaxis/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains mother prophylaxis data

<http://api.nascop.org/eid/ver2.0/national/iprophylaxis/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains infant prophylaxis data

## County

This has data at the county level. The {County} parameter is used to set the desired county. This parameter can be set to 0 when you require data grouped by county.

<http://api.nascop.org/eid/ver2.0/county/counties> – Returns a list of all counties and their MFL and DHIS codes. This can be used to get the code to pass as a parameter for the subsequent routes.

<http://api.nascop.org/eid/ver2.0/county/info/{County}> – Returns more in-depth data on a county. 0 cannot be passed as a parameter here.

<http://api.nascop.org/eid/ver2.0/county/summary/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains summary data like turnaround time

[http://api.nascop.org/eid/ver2.0/county/hei/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/hei/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains the hei data

[http://api.nascop.org/eid/ver2.0/county/hei\_validation/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/hei_validation/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains the hei validation data

[http://api.nascop.org/eid/ver2.0/county/age\_breakdown/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/age_breakdown/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains the age breakdown data i.e. positives and negatives per age group

[http://api.nascop.org/eid/ver2.0/county/entry\_point/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/entry_point/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains the entry point data

[http://api.nascop.org/eid/ver2.0/county/mprophylaxis/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/mprophylaxis/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains mother prophylaxis data

[http://api.nascop.org/eid/ver2.0/county/iprophylaxis/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/iprophylaxis/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains infant prophylaxis data

[http://api.nascop.org/eid/ver2.0/county/facilities/{County}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/eid/ver2.0/county/iprophylaxis/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}) – Contains summary data of all the facilities in the specified county. 0 cannot be passed as a parameter here.

## Subcounty

This has data at the subcounty level. The {Subcounty} parameter is used to set the desired subcounty. This parameter can be set to 0 when you require data grouped by subcounty.

[http://api.nascop.org/eid/ver2.0/subcounty/subcounties](http://api.nascop.org/eid/ver2.0/subcounty/counties) – Returns a list of all subcounties and their MFL and DHIS codes. This can be used to get the code to pass as a parameter for the subsequent routes.

<http://api.nascop.org/eid/ver2.0/subcounty/info/{Subcounty}> – Returns more in-depth data on a subcounty. 0 cannot be passed as a parameter here.

<http://api.nascop.org/eid/ver2.0/subcounty/summary/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains summary data like turnaround time

<http://api.nascop.org/eid/ver2.0/subcounty/hei/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the hei data

<http://api.nascop.org/eid/ver2.0/subcounty/hei_validation/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the hei validation data

<http://api.nascop.org/eid/ver2.0/subcounty/age_breakdown/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the age breakdown data i.e. positives and negatives per age group

<http://api.nascop.org/eid/ver2.0/subcounty/entry_point/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the entry point data

<http://api.nascop.org/eid/ver2.0/subcounty/mprophylaxis/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains mother prophylaxis data

<http://api.nascop.org/eid/ver2.0/subcounty/iprophylaxis/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains infant prophylaxis data

<http://api.nascop.org/eid/ver2.0/subcounty/facilities/{Subcounty}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains summary data of all the facilities in the specified subcounty. 0 cannot be passed as a parameter here.

## Partner

This has data at the partner level. The {Partner} parameter is used to set the desired partner. This parameter can be set to 0 when you require data grouped by partner.

[http://api.nascop.org/eid/ver2.0/partner/partners](http://api.nascop.org/eid/ver2.0/subcounty/counties) – Returns a list of all partners and their IDs. This can be used to get the code to pass as a parameter for the subsequent routes.

<http://api.nascop.org/eid/ver2.0/partner/info/{Partner}> – Returns more in-depth data on a partner. 0 cannot be passed as a parameter here.

<http://api.nascop.org/eid/ver2.0/partner/summary/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains summary data like positives and negatives

<http://api.nascop.org/eid/ver2.0/partner/hei/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the hei data

<http://api.nascop.org/eid/ver2.0/partner/hei_validation/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the hei validation data

<http://api.nascop.org/eid/ver2.0/partner/age_breakdown/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the age breakdown data i.e. positives and negatives per age group

<http://api.nascop.org/eid/ver2.0/partner/entry_point/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains the entry point data

<http://api.nascop.org/eid/ver2.0/partner/mprophylaxis/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains mother prophylaxis data

<http://api.nascop.org/eid/ver2.0/partner/iprophylaxis/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains infant prophylaxis data

<http://api.nascop.org/eid/ver2.0/partner/facilities/{Partner}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Contains summary data of all the facilities supported by a partner. 0 cannot be passed as a parameter here.

## Labs

This contains the lab level data. 0 can be passed to get data grouped by labs.

<http://api.nascop.org/eid/ver2.0/lab/labs> – Lists all labs and their IDs which can be used in the subsequent routes.

<http://api.nascop.org/eid/ver2.0/lab/info/{Lab}> – Gets in-depth data of the specified lab. 0 cannot be passed as a parameter here.

<http://api.nascop.org/eid/ver2.0/lab/summary/{Lab}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Get summary data of the specified lab.

## Facility

This gets the data at the facility level. Due to the number of facilities, when you pass 0 as the parameter for facility, the number of facilities whose data is returned is limited to 100.

<http://api.nascop.org/eid/ver2.0/facility/facilities> - Get a list of all facilities and their MFL and DHIS codes. These codes will be used on the subsequent routes.

<http://api.nascop.org/eid/ver2.0/facility/unsupported_facilities> - Get a list of all facilities without a supporting partner.

<http://api.nascop.org/eid/ver2.0/facility/hei/{Facility}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Get the hei data of a facility e.g. transferred out.

<http://api.nascop.org/eid/ver2.0/facility/hei_validation/{Facility}/{Type}/{Year}/{Month}/{ToYear}/{ToMonth}> – Get the hei validation data of a facility e.g. confirmed positives.

## Patient

This is used to get patient level data.

<http://api.nascop.org/eid/ver2.0/patient/results/{Facility}/{PatientID}> – This is used to get all the tests for a particular patient. This route is protected. Users must pass a valid token in order to get data.

The subsequent routes are used to get the number of patients who got one test, two, three and more than three tests in the time period specified.

<http://api.nascop.org/eid/ver2.0/patient/national/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the nation.

<http://api.nascop.org/eid/ver2.0/patient/county/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the county. 0 cannot be passed as a parameter.

<http://api.nascop.org/eid/ver2.0/patient/subcounty/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> - Gets tests for the subcounty. 0 cannot be passed as a parameter.

<http://api.nascop.org/eid/ver2.0/patient/partner/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the partner. 0 cannot be passed as a parameter.

<http://api.nascop.org/eid/ver2.0/patient/facility/{Facility}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the facility. 0 cannot be passed as a parameter.

# Viral load

This module deals with viral load data.

## National

This returns data at the national level.

<http://api.nascop.org/vl/ver2.0/national/summary/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets summary data e.g. the number of suppressed and non suppressed individuals.

<http://api.nascop.org/vl/ver2.0/national/sample_type/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to sample type.

<http://api.nascop.org/vl/ver2.0/national/regimen/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to regimen.

<http://api.nascop.org/vl/ver2.0/national/justification/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to the justification of the test i.e. why the test was carried out.

<http://api.nascop.org/vl/ver2.0/national/gender/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to gender.

<http://api.nascop.org/vl/ver2.0/national/age/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to age groups.

## County

Gets vl data for the county.

<http://api.nascop.org/vl/ver2.0/county/counties> - Gets a list of all counties.

<http://api.nascop.org/vl/ver2.0/county/info/{County}> – Gets details of a county. 0 not permitted.

<http://api.nascop.org/vl/ver2.0/county/summary/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets summary data.

<http://api.nascop.org/vl/ver2.0/county/regimen/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to regimen.

<http://api.nascop.org/vl/ver2.0/county/gender/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to gender.

<http://api.nascop.org/vl/ver2.0/county/age/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to age.

<http://api.nascop.org/vl/ver2.0/county/facilities/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets summary data for facilities in the county specified. 0 will not return for all counties.

## Subcounty

Gets data for the subcounty.

<http://api.nascop.org/vl/ver2.0/subcounty/subcounties> - Gets a list of all subcounties.

<http://api.nascop.org/vl/ver2.0/subcounty/info/{Subcounty}> – Gets detailed info on the subcounty. 0 is not permitted.

<http://api.nascop.org/vl/ver2.0/subcounty/summary/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets the summary data.

[http://api.nascop.org/vl/ver2.0/subcounty/regimen/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}](http://api.nascop.org/vl/ver2.0/county/regimen/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}) – Gets data grouped according to regimen.

<http://api.nascop.org/vl/ver2.0/subcounty/gender/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to gender.

<http://api.nascop.org/vl/ver2.0/subcounty/age/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to age.

<http://api.nascop.org/vl/ver2.0/subcounty/facilities/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets summary data for the facilities in the subcounty. 0 is not permitted.

## Partner

Gets data for the partner. The details for a partner are the sums and averages of all the facilities which they support.

<http://api.nascop.org/vl/ver2.0/partner/partners> - Gets a list of their partners and their partner ids.

<http://api.nascop.org/vl/ver2.0/partner/info/{Partner}> – Gets detailed info on the partner. 0 will not return data for all partners.

<http://api.nascop.org/vl/ver2.0/partner/summary/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets the summary data.

<http://api.nascop.org/vl/ver2.0/partner/justification/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets the data grouped according to justification.

<http://api.nascop.org/vl/ver2.0/partner/gender/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets the data grouped according to gender.

<http://api.nascop.org/vl/ver2.0/partner/age/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets the data grouped according to age.

<http://api.nascop.org/vl/ver2.0/partner/facilities/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets the summary data of facilities supported by the partner. 0 cannot be passed as a parameter for partner.

## Labs

Gets data at the lab level.

<http://api.nascop.org/vl/ver2.0/lab/labs> - Gets a list of all labs.

[http://api.nascop.org/vl/ver2.0/lab/info/{Lab}](http://api.nascop.org/vl/ver2.0/partner/summary/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}) – Gets detailed info of the lab.

<http://api.nascop.org/vl/ver2.0/lab/summary/{Lab}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets summary data for the lab.

## Facility

Gets data at the facility level.

<http://api.nascop.org/vl/ver2.0/facility/facilities> - Gets a list of all facilities.

<http://api.nascop.org/vl/ver2.0/facility/unsupported_facilities> - Gets a list of all facilities without a supporting a partner.

<http://api.nascop.org/vl/ver2.0/facility/info/{Facility}> – Gets detailed info on the specified facility. 0 will not return data for the top facilities.

<http://api.nascop.org/vl/ver2.0/facility/summary/{Facility}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets summary data.

<http://api.nascop.org/vl/ver2.0/facility/regimen/{Facility}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to regimen.

<http://api.nascop.org/vl/ver2.0/facility/age/{Facility}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets data grouped according to age groups.

<http://api.nascop.org/vl/ver2.0/facility/gender/{Facility}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> - Gets data grouped according to gender.

## Patient

This is used to get patient level data.

<http://api.nascop.org/vl/ver2.0/patient/results/{Facility}/{PatientID}> – This is used to get all the tests for a particular patient. This route is protected. Users must pass a valid token in order to get data.

The subsequent routes are used to get the number of patients who got one test, two, three and more than three tests in the time period specified. Highest is a parameter that shows the highest number of tests given to a single patient in the period specified.

<http://api.nascop.org/vl/ver2.0/patient/national/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the nation. Due to the large amount of data needed to be sorted through in order to get the information required, an error 500 may occur. If this happens, try selecting for a smaller period e.g. <http://api.nascop.org/vl/ver2.0/patient/national/5/2017/1/2017/4>

<http://api.nascop.org/vl/ver2.0/patient/county/{County}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the county. 0 cannot be passed as a parameter.

<http://api.nascop.org/vl/ver2.0/patient/subcounty/{Subcounty}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> - Gets tests for the subcounty. 0 cannot be passed as a parameter.

<http://api.nascop.org/vl/ver2.0/patient/partner/{Partner}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the partner. 0 cannot be passed as a parameter.

<http://api.nascop.org/vl/ver2.0/patient/facility/{Facility}/{Type/{Year}/{Month}/{ToYear}/{ToMonth}> – Gets tests for the facility. 0 cannot be passed as a parameter.