

NigeriaMRS MIGRATION UTILITY USER GUIDE

User Guide

Steps for migrating from Legacy EMR to NMRS

Step 1: Check the total number of patients to be migrated from the host EMR

Step 2: Check the total number of patients already existing in the NMRS

Use the following steps to check the total number of patients in the NMRS.

- Step 2.1: Login to NMRS
- Step 2.2: On the NMRS Home page click **Data Migration Validation** as depicted in Fig 1
- Step 2.3: On the Migration Summary Page check the migration details and note the total number patients in the NMRS. See Fig 2 below.

The steps above are necessary to determine the number of patients that were successfully migrated from the EMR to the NMRS.

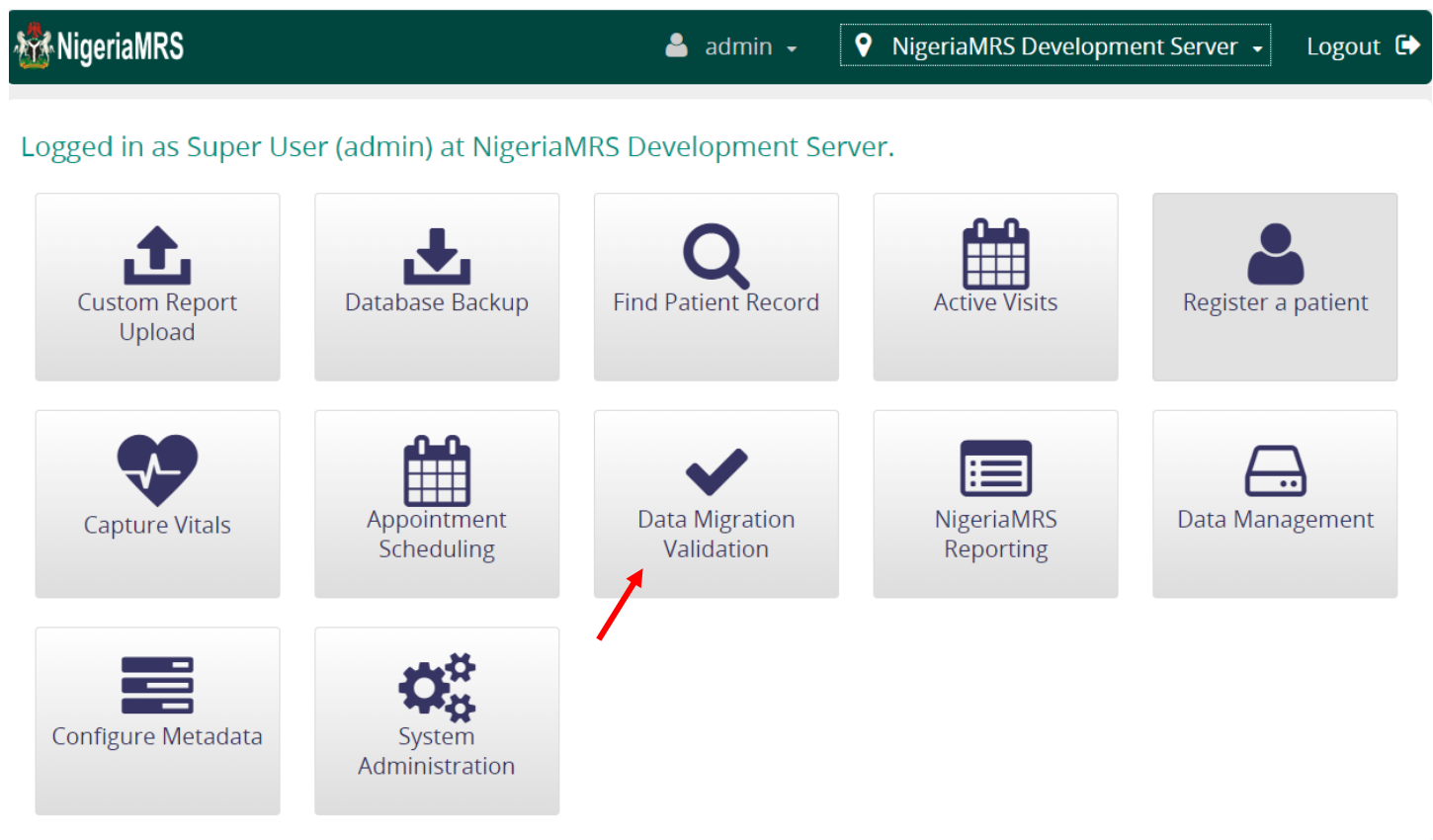


Fig 1: *Data Migration Validation*

MIGRATION SUMMARY



Total Patients
742



Lab Records
24



Pharmacy Records
12



Care card Records
28

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PatientID	PateInt Name	Lab records	Pharmacy Records	ARTstartdate	LastPickup	firstDocumentedRegimen	lastDocumentedRegimen
10000X	John Doe	7	3	10.Apr.2018	04.Sep.2019	AZT-3TC-NVP	AZT-3TC-NVP
10001V	Paul Walker	0	0	26.Apr.2016	28.Feb.2018		
10002T	Mary Thomas	0	0	18.Dec.2017	25.Dec.2017		
10003P	Lisa Hall	0	0	06.Jul.2016	30.Mar.2018		
10004M	Anthony Thompson	0	0	21.May.2016	20.Nov.2017		
10005K	Carol Thomas	1	0	23.Apr.2016	30.Aug.2019		
10006H	Susan Campbell	0	0	23.Apr.2016	30.Nov.2017		
10007F	George Miller	0	0	30.Jul.2016	23.Oct.2017		
10008D	Susan Moore	0	0	18.Oct.2017	18.Oct.2017		
10009A	Melissa Miller	0	0	01.May.2016	16.Jan.2018		

Showing 1 to 10 of 742 entries

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Fig 2: Migration Summary

Step 3: Generate a JSON payload for each patient from the EMR as shown in the *JsonSample* below.

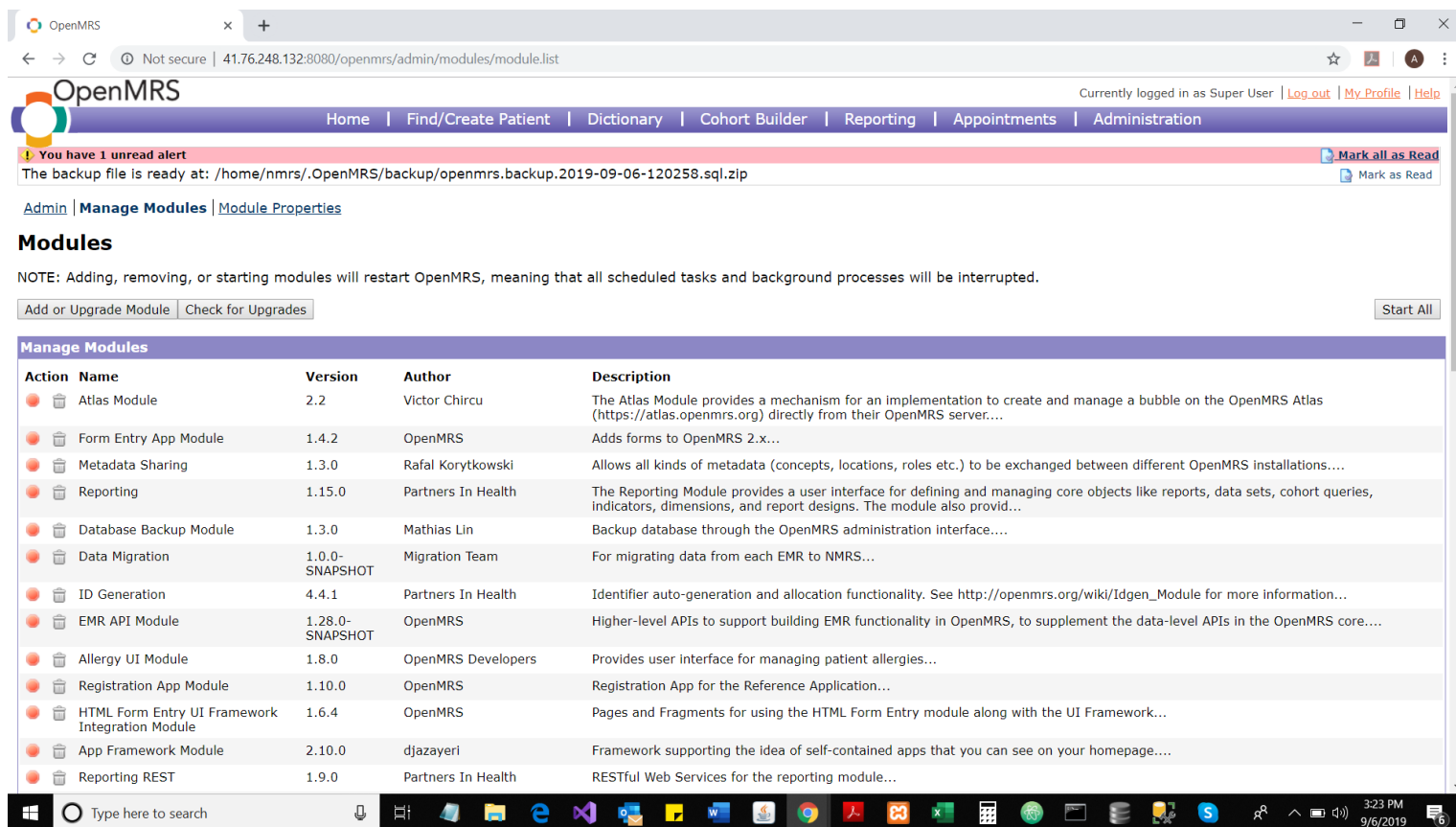
Model	Example value (JsonSample)
<pre> { "surname": "string", "givenName": "string", "middleName": "string", "birthDate": "date-string(dd/MM/yyyy)", "gender": "string(M or F)", "address": { "country": "string", "address3": "string", "address2": "string", "address1": "string", "latitude": "string", "postalCode": "string", "stateProvince": "string", "cityVillage": "string", "longitude": "string" }, "facility": { "lga": "string", "facilityName": "string", "state": "string" }, "encounters": [{ "encounterTypeId": "int", "formTypeId": "int", "encounterDate": "date- string(dd/MM/yyyy)", "encounterLocationId": "int", "provider": { "surname": "string", "givenName": "string", "middleName": "string" } }, "obs": [{ "valueTypeId": "string(value_coded, value_numeric, value_boolean, value_text etc)", "obsChildren": [], "conceptId": "int", "parent": "boolean", "value": "string" }, { "valueTypeId": "string(value_coded, value_numeric, value_boolean, value_text etc)", "obsChildren": [], "conceptId": "int", "parent": "boolean", "value": "string" }, { "conceptId": "int", </pre>	<pre> { "surname": "Musa", "givenName": "Lawal", "middleName": "Aliyu", "birthDate": "27/08/1997", "gender": "M", "address": { "country": "Nigeria", "address3": "", "address2": "", "address1": "No. 4, Ahmadu Street", "latitude": "9.047", "postalCode": "800272", "stateProvince": "Kaduna", "cityVillage": "Birnin Mai Burji", "longitude": "11.065" }, "facility": { "lga": "Lere", "facilityName": "Lere Hospital", "state": "Kaduna" }, "encounters": [{ "encounterTypeId": 13, "formTypeId": "int", "encounterDate": "03/09/2019", "encounterLocationId": "4", "provider": { "surname": "Haliru", "givenName": "Ahmed", "middleName": "Bello" } }, "obs": [{ "valueTypeId": "value_coded", "obsChildren": [], "conceptId": 165945, "parent": "false", "value": "160530" }, { "valueTypeId": "value_coded", "obsChildren": [], "conceptId": "165945", "parent": "false", "value": "160530" }, { "conceptId": 160530, "parent": "false", "value": "165709", "valueTypeId": "value_coded", "obsChildren": [{ </pre>

<pre>"boolean", "parent": "value": "string", "valueTypeId": "string(value_coded, value_numeric, value_boolean, value_text etc)", "obsChildren": [{ "valueTypeId": "string(value_coded, value_numeric, value_boolean, value_text etc)", "conceptId": "int", "value": "string" }], "valueTypeId": "string(value_coded, value_numeric, value_boolean, value_text etc)", "conceptId": "int", "value": "string" } "identifiers": [{ "identifier": "string", "locationId": "string", "identifierType": "string", "preferred": "boolean" }] }</pre>	<pre>"valueTypeId": "value_coded", "conceptId": 160530, "value": "160530" }, { "valueTypeId": "value_coded", "conceptId": 165720, "value": "160530" }] }], "identifiers": [{ "identifier": "DEMO-17-2090", "locationId": "1", "identifierType": "4", "preferred": "true" }] }</pre>
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Step 4: Ensure that NMRS is running and the data migration module installed

Use the following steps to check if data migration module is installed.

- Step 4.1: On the NMRS Home page click System Administration
- Step 4.2: On the System Administration page click Advance System Administration.
- Step 4.3: On the Advance System Administration Page Under Modules select Manage Modules.
- Step 4.4: On the Manage Module table find **Data Migration** from the list, if this is available it means data migration module is installed. See Fig 3 below.



The screenshot shows the OpenMRS web interface. At the top, there's a navigation bar with links like Home, Find/Create Patient, Dictionary, Cohort Builder, Reporting, Appointments, and Administration. Below this, a pink alert banner states: "You have 1 unread alert. The backup file is ready at: /home/nmrs/.OpenMRS/backup/openmrs.backup.2019-09-06-120258.sql.zip". The main content area is titled "Modules" and includes a note: "NOTE: Adding, removing, or starting modules will restart OpenMRS, meaning that all scheduled tasks and background processes will be interrupted." Below the note are buttons for "Add or Upgrade Module", "Check for Upgrades", and "Start All". The "Manage Modules" section contains a table with the following data:

Action	Name	Version	Author	Description
	Atlas Module	2.2	Victor Chircu	The Atlas Module provides a mechanism for an implementation to create and manage a bubble on the OpenMRS Atlas (https://atlas.openmrs.org) directly from their OpenMRS server....
	Form Entry App Module	1.4.2	OpenMRS	Adds forms to OpenMRS 2.x...
	Metadata Sharing	1.3.0	Rafal Korytkowski	Allows all kinds of metadata (concepts, locations, roles etc.) to be exchanged between different OpenMRS installations....
	Reporting	1.15.0	Partners In Health	The Reporting Module provides a user interface for defining and managing core objects like reports, data sets, cohort queries, indicators, dimensions, and report designs. The module also provid...
	Database Backup Module	1.3.0	Mathias Lin	Backup database through the OpenMRS administration interface....
	Data Migration	1.0.0-SNAPSHOT	Migration Team	For migrating data from each EMR to NMRS...
	ID Generation	4.4.1	Partners In Health	Identifier auto-generation and allocation functionality. See http://openmrs.org/wiki/Idgen_Module for more information...
	EMR API Module	1.28.0-SNAPSHOT	OpenMRS	Higher-level APIs to support building EMR functionality in OpenMRS, to supplement the data-level APIs in the OpenMRS core....
	Allergy UI Module	1.8.0	OpenMRS Developers	Provides user interface for managing patient allergies...
	Registration App Module	1.10.0	OpenMRS	Registration App for the Reference Application...
	HTML Form Entry UI Framework Integration Module	1.6.4	OpenMRS	Pages and Fragments for using the HTML Form Entry module along with the UI Framework...
	App Framework Module	2.10.0	djazayeri	Framework supporting the idea of self-contained apps that you can see on your homepage...
	Reporting REST	1.9.0	Partners In Health	RESTful Web Services for the reporting module...

Fig 3: Modules Directory

Step 5: Send the generated json payload from the EMR to `SERVER_NAME/OPENMRS_INTSANCE/ws/rest/v1/migration` API

Step 6: To check the migrated data repeat **Step 2** above, and check if the total number of patients migrated corresponds with the total number of patients from the host EMR. This can be determined by finding the difference between the old total number of patients from step 2 and the new total number of patients.