

National Health Workforce Accounts Online Platform – part I

Introduction

Exercises: maturity assessment, data entry

Aurora Saares

PAHO NHWA workshop, Miami July 2019

Why the need for a platform?

NHWA data platform enables users to **record**, **analyze** and **visualize** information and evidence on health workforce.

The data platform is developed bearing in mind a country perspective

- To have a national level **system** to systematically record time trend data in a structured and **standardized** manner
- To have a tool for national level stakeholders to **view and visualize** data recorded at the national level
- To provide a common place for multi-stakeholder **data exchange** without disrupting existing stakeholder databases.

Overview of the platform architecture



- NHWA data platform is developed on a DHIS2 instance, hosted in WHO.
- Following all the WHO security clearance and data sharing policies.

Users and user access

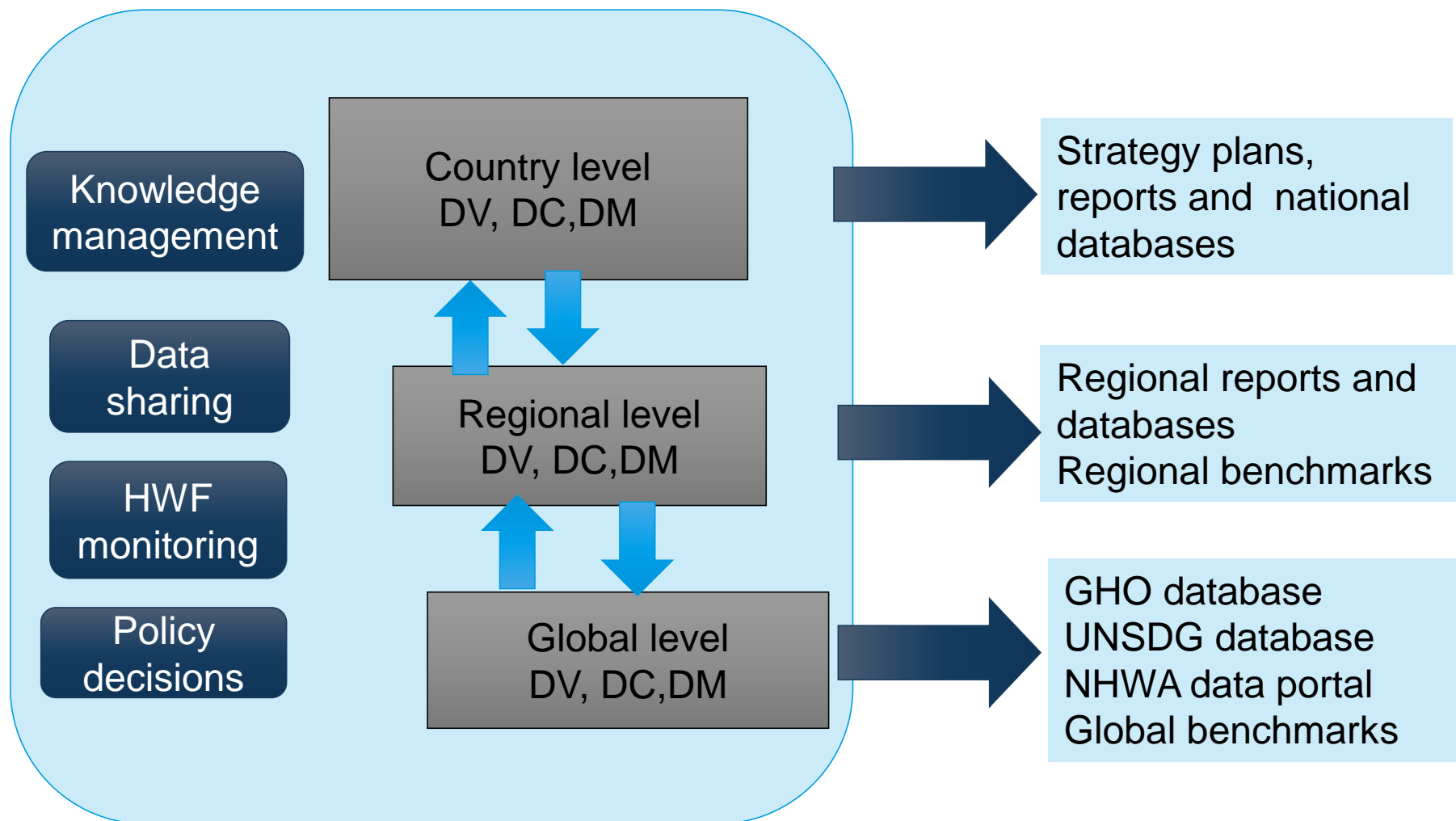
- Access to the NHWA data platform is possible through individual password protected user accounts
- Each account is assigned a role and geographic location (country/region)
- Multiple users from the same country can access the system
- Main 3 categories of users

Who can? What they can?

	Data viewer	Data clerk	Data manager
View data entered in the platform in pivot tables	√	√	√
Create charts and dashboards using the data visualization tools	√	√	√
Enter new data in the platform		√	√
Edit entered/existing data in the platform		√	√
Approve entered data in the platform			√

For this week, we will all be using Data Manager profiles

Data management and use



To connect



WHO Integrated data platform
Welcome on the WHO
Integrated data platform ! Please
enter your credential to enter into
the platform.





World Health Organization

User name

Sign in

Sign in

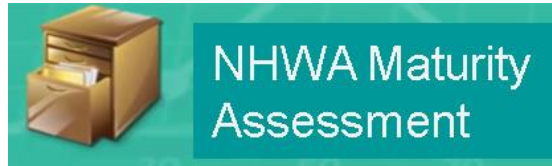
Password

For any issue
contact us in integrated-
data@who.int
or
open a ticket in the
Online Reporting System

Powered by DHIS 2 Powered by DHIS2, Managed by WHO

WHO-HQ [Change language] ▼

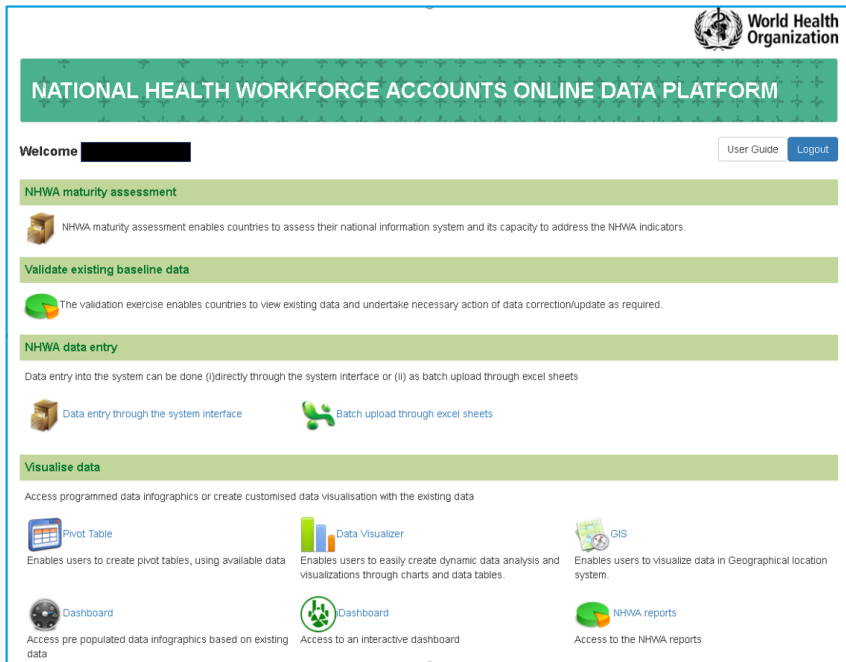
What can you do in the platform?



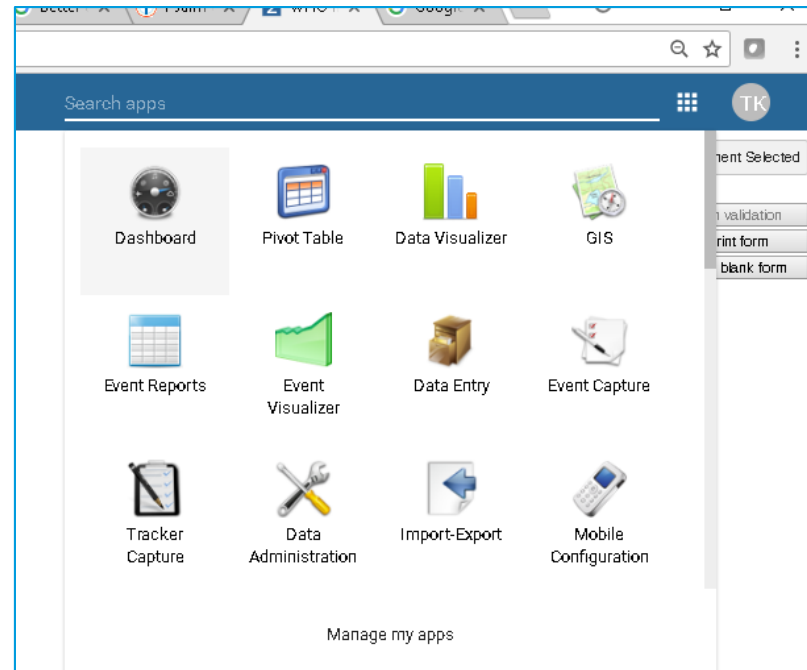
Access to functions/apps

Functions are referred to as 'Apps' in the system

Available from the Landing page , also from any other page



The screenshot shows the landing page of the 'NATIONAL HEALTH WORKFORCE ACCOUNTS ONLINE DATA PLATFORM'. The header includes the WHO logo and the platform name. Below the header, there is a 'Welcome' section with a user profile and 'User Guide' and 'Logout' links. The main content area is divided into several sections: 'NHWA maturity assessment', 'Validate existing baseline data', 'NHWA data entry', and 'Visualise data'. Each section contains a brief description and links to specific functions. For example, the 'NHWA data entry' section has links for 'Data entry through the system interface' and 'Batch upload through excel sheets'. The 'Visualise data' section has links for 'Pivot Table', 'Data Visualizer', 'GIS', 'Dashboard', and 'NHWA reports'.



The screenshot shows the 'Search apps' interface. It features a search bar at the top with the text 'Search apps'. Below the search bar, there is a grid of app icons. The apps are arranged in a 4x4 grid. The first row contains 'Dashboard', 'Pivot Table', 'Data Visualizer', and 'GIS'. The second row contains 'Event Reports', 'Event Visualizer', 'Data Entry', and 'Event Capture'. The third row contains 'Tracker Capture', 'Data Administration', 'Import-Export', and 'Mobile Configuration'. At the bottom of the grid, there is a link that says 'Manage my apps'. On the right side of the interface, there is a sidebar with a 'TK' profile icon and a list of actions: 'Select', 'validation', 'Print form', and 'blank form'.

NHWA Landing page

NATIONAL HEALTH WORKFORCE ACCOUNTS ONLINE DATA PLATFORM

Welcome [REDACTED]

[User Guide](#)

[Logout](#)

NHWA maturity assessment



NHWA maturity assessment enables countries to assess their national information system and its capacity to address the NHWA indicators.

Validate existing baseline data



The validation exercise enables countries to view existing data and undertake necessary action of data correction/update as required.

NHWA data entry

Data entry into the system can be done (i) directly through the system interface or (ii) as batch upload through excel sheets



[Data entry through the system interface](#)



[Batch upload through excel sheets](#)

Visualise data

Access programmed data infographics or create customised data visualisation with the existing data



[Pivot Table](#)

Enables users to create pivot tables, using available data



[Data Visualizer](#)

Enables users to easily create dynamic data analysis and visualizations through charts and data tables.



[GIS](#)

Enables users to visualize data in Geographical location system.



[Dashboard](#)

Access pre populated data infographics based on existing data



[Dashboard](#)

Access to an interactive dashboard



[NHWA reports](#)

Access to the NHWA reports

NHWA maturity assessment

Organisation Unit	France
Data Set	NHWA Maturity assessment
Period	2016 ⬇ Prev year
Filter on section	Show all sections

M01 - Active health workforce stock

Does your country have data on

Filter in section	Value
Health occupations at national level ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by activity level data ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations at subnational level ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by age group ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by sex ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by facility ownership?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by facility type?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by foreign-born ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health occupations by foreign-trained?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬
Health and social sector employment ?	<input type="radio"/> No value <input type="radio"/> Yes <input type="radio"/> No 💬

- Enables countries to assess the capacity of their information system to generate NHWA indicators
- List of Yes/No questions on indicators availability
- Possibility to record comments to indicate special cases, exceptions etc.

Data validation

DHIS 2 Pivot Tables

Data	
Indicators	▼
Select indicator group	▼
Available	Selected
Medical doctors not further defined Stock Total	
General Medical Practitioners Stock Total	
Specialist Medical Practitioners Stock Total	
Gen Paediatricians Practitioners Stock Total	
Obstetricians and Gynaecologists Stock Total	
Psychiatrists Practitioners Stock Total	
Medical Specialists Practitioners Stock Total	
Surgical Specialists Practitioners Stock Total	
Other Specialists Practitioners Stock Total	
Nurses not further defined Stock Total	
Nursing Professionals Stock Total	
Nursing Associate Professionals Stock Total	
Midwives not further defined Stock Total	
Midwifery Professionals Stock Total	
Midwifery Associate Professionals Stock Total	
Dentists Stock Total	
Dental Assistants and Therapists Stock Total	
Dental Prosthetic Technicians Stock Total	
Pharmacists Stock Total	
Pharmaceutical Technicians & Ass. Stock Total	
Paramedical Practitioners Stock Total	
Medical Laboratory scientists Stock Total	
Imaging Technicians Stock Total	
Medical Laboratory Technicians Stock Total	
Env and Occup Health Professionals Stock Total	
Env and Occup Health Inspectors Stock Total	
Traditional Medicine Professionals Stock Total	
Traditional Assoc Professionals Stock Total	
Community Health Workers Stock Total	
Personal workers in health n.e.c Stock Total	
Health Care Assistants Stock Total	
Home-based Personal Care Workers Stock Total	
Personal care workers Stock Total	
Physiotherapists Stock Total	
Physiotherapy Technicians Stock Total	
Dieticians Stock Total	

Stock : data validation table

<<<	Update	Favorites	Layout	Options	Download	Embed	Global																
Data / Period	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017					
Medical doctors not further defined Stock Total	1 236 328	576 224	506 502	380 979	1 359 262	1 347 928	544 400	544 540	613 209	590 028	1 629 290	1 592 154	1 334 000	1 893 211	1 353 945	1 333 844	1 460 831	962 238					
General Medical Practitioners Stock Total										255	200 860		726	1 044	783	21 334	15 218	155 380					
Specialist Medical Practitioners Stock Total										114	54 273		280	293	309	13 339	15 150	297 542					
Gen Paediatricians Practitioners Stock Total																	840						
Obstetricians and Gynaecologists Stock Total																	527						
Psychiatrists Practitioners Stock Total																	62						
Medical Specialists Practitioners Stock Total																							
Surgical Specialists Practitioners Stock Total																	295						
Other Specialists Practitioners Stock Total																							
Nurses not further defined Stock Total	3 472 675	953 342	1 059 023	731 601	1 052 063	4 002 883	1 092 871	1 831 369	1 650 204	474 946	6 119 174	731 844	815 364	2 500 625	3 631 016	3 528 616	926 852	1 542 950					
Nursing Professionals Stock Total									279 346	284 690	287 344	291 008	292 883	296 029	293 205	296 731	306 753	636 248					
Nursing Associate Professionals Stock Total									81 099	85 277	90 306	94 646	99 935	106 447	107 923	113 367	116 491	1 029 920					
Midwives not further defined Stock Total	1 254	5 509	3 351	2 504	6 297	1 523	2 265	1 636	2 290	13 096		9 402	11 818	311	308	803	867	228					
Midwifery Professionals Stock Total														11 626									
Midwifery Associate Professionals Stock Total														30 324				5 771					
Dentists Stock Total	399 549	266 503	236 264	219 438	279 275	440 777	287 239	290 818	309 600	296 709	474 515	35 321	55 824	53 206	54 285	288 934	59 854	286 850					
Dental Assistants and Therapists Stock Total	329 856	16 295	16 884		17 553	454 593	19 385	6 650	22 591	6	523 870	40	113	124	1 387	2 500	2 712	78 982					
Dental Prosthetic Technicians Stock Total	55 869	6	4	4						8	29		6	5 218	4 461	4 404	2	1					
Pharmacists Stock Total	301 058	117 404	28 243	1 080	48 119	361 522	131 800	141 779	135 697	33 872	400 154	6 275	33 235	33 538	34 416	372 390	39 685	146 428					
Pharmaceutical Technicians & Ass. Stock Total	10 506	2 077	1 023					15 877	1 133	72	77 685	90	3 855	3 034	3 155	1 080	586	29 615					
Paramedical Practitioners Stock Total	274 032	579	322			163 941				77	203 167		47	52	57	337	59						
Medical Laboratory scientists Stock Total	105 255	20 051	298	31	19 955	509 956	351	29	2 956	1 164	552 276		2 907	624									
Imaging Technicians Stock Total	177 411	15 160	14 787	7	15 693	331 919	16 627	7 680	17 913	18 136	443 561	689	3 062	2 717	3 118	1 988	2 151	64 316					
Medical Laboratory Technicians Stock Total	521 337	17 999	18 272	19 105	19 402	20 790	20 530	34 203	20 745	20 803	71 482	2 632	6 549	6 395	7 258	4 281	3 599	43 744					
Env and Occup Health Professionals Stock Total	168 574	1 495	1 279	15	1 219	496	1 448	3 440	1 700	75	128 411		69	47	4 140	739	1 377	11 218					
Env and Occup Health Inspectors Stock Total						685					20 320		1 808	1 523	1 592	5 744	2 302	168 375					
Traditional Medicine Professionals Stock Total		1 006					411	1 660			6 718					310	137	3 839					
Traditional Assoc Professionals Stock Total											13 126	1 930				1 488	496	7 912					
Community Health Workers Stock Total	90	93	45	45					49 899	50 033	385 676	48 165	52 038	52 401	54 780	59 028	72 194	496 418					
Personal workers in health n.e.c Stock Total																		728 326					
Health Care Assistants Stock Total																		81 925					
Home-based Personal Care Workers Stock Total																		574 604					
Personal care workers Stock Total																		71 797					
Physiotherapists Stock Total	156 366	26 414	15 009	1	15 607	273 820	16 264	22 855	17 596	17 493	422 216	210 482	220 178	228 005	237 119	253 202	262 021	193 861					
Physiotherapy Technicians Stock Total	76 307	1 103	3 337	2 126	15 340	213 974	2 667	7 010	3 741	3 057	447 922	43				2 491	2 080	39 479					
Dieticians Stock Total	101 390	6 975	7 292		7 783		8 422	1 094	6 592		1 219	16	865		780	844							

Data entry through the system interface



WHO Integrated data platform

Home < >

Data Entry ?

Organisation Unit Bahrain

Data Set ☒ [Select data set]

Period

- NHWA Maturity assessment
- NHWA Module 1
- NHWA Module 2
- NHWA Module 3
- NHWA Module 4
- NHWA Module 5
- NHWA Module 6
- NHWA Module 7
- NHWA Module 8-10
- Population UN

To enter data: choose your **country** (default organisation unit selection), **NHWA module** (Data Set) and **year**

In each module, indicators are ordered in tabular format along NHWA dimensions.

Data entry – source and comments

Working Details	Demographic	Place of Birth and training	Country of training
Other indicators in Module 1	Other Resources		

SECTION 1: HWF WORKING DETAILS

SN	Occupation	Total	Active	
			Practising	Professional
1	Medical Doctors	100		
1.1	General Medical Practitioners	80		
1.2	Specialist Medical Practitioners	20		
1.2.1	General paediatricians	5		
1.2.2	Obstetricians and Gynaecologists	4		
1.2.3	Psychiatrists Practitioners	3		

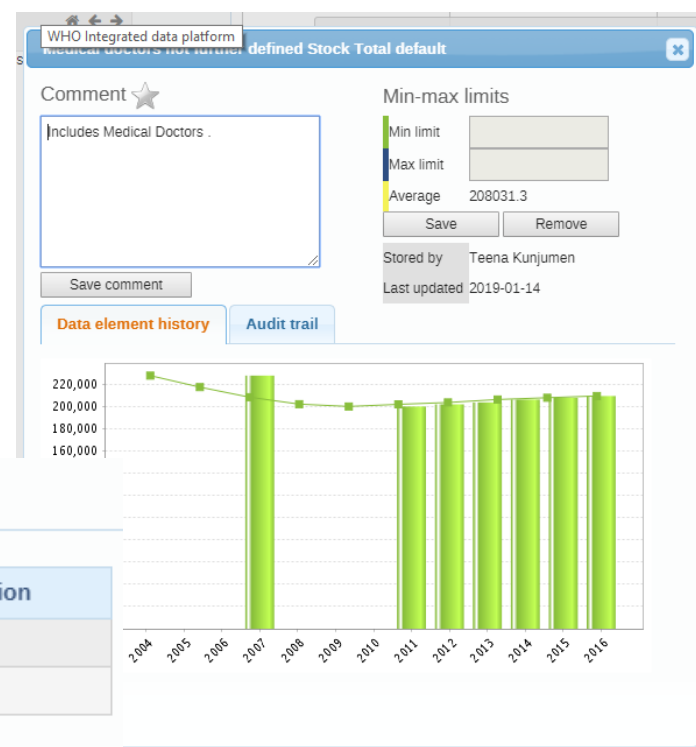
1.2.4	<div><div>Data element history</div><div>Audit trail</div></div>															
1.2.5	<table><tr><th>On</th><th>Modified by</th><th>Value</th><th>Modification</th></tr><tr><td>2019-01-14 17:46</td><td>teena.kunjumen</td><td>209367</td><td>Update</td></tr><tr><td>2018-12-21 16:58</td><td>teena.kunjumen</td><td>209367</td><td>Delete</td></tr></table>				On	Modified by	Value	Modification	2019-01-14 17:46	teena.kunjumen	209367	Update	2018-12-21 16:58	teena.kunjumen	209367	Delete
On	Modified by	Value	Modification													
2019-01-14 17:46	teena.kunjumen	209367	Update													
2018-12-21 16:58	teena.kunjumen	209367	Delete													

Source Type

Select an option

<input type="checkbox"/> Ministry of Health	<input type="checkbox"/> National HRH Observatory	<input type="checkbox"/> Academia <input type="checkbox"/> Inter. Organisation
<input type="checkbox"/> Ministry of Labour	<input type="checkbox"/> Professional association	<input type="checkbox"/> Multi Agency organisations
<input type="checkbox"/> National Statistical Office	<input type="checkbox"/> Regulatory bodies <input type="checkbox"/> WHO	<input type="checkbox"/> Other multi Agency databases
<input type="checkbox"/> Ministry of Internal Affairs		

Select an option



Data entry - completion

41	Engineering and maintenance staff	99	
42	Other non-medical professional staff	99	
43	Other non-medical support staff	99	


If you have data on occupations and their source title, that are not listed

Complete

Incomplete


Run validation


Excel data importer



Template: Module 1 Template

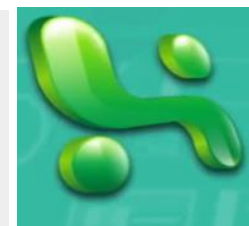
OrgUnit Scheme: UID

UPLOAD 

DOWNLOAD 

Help Tips:

- Single or Multiple xlsx data files can be uploaded using upload button



Module_1_Template (2).xlsx - Excel

BONIOL, Mathieu

FileHomeInsertPage LayoutFormulasDataReviewViewAdd-insTell me what you want to do

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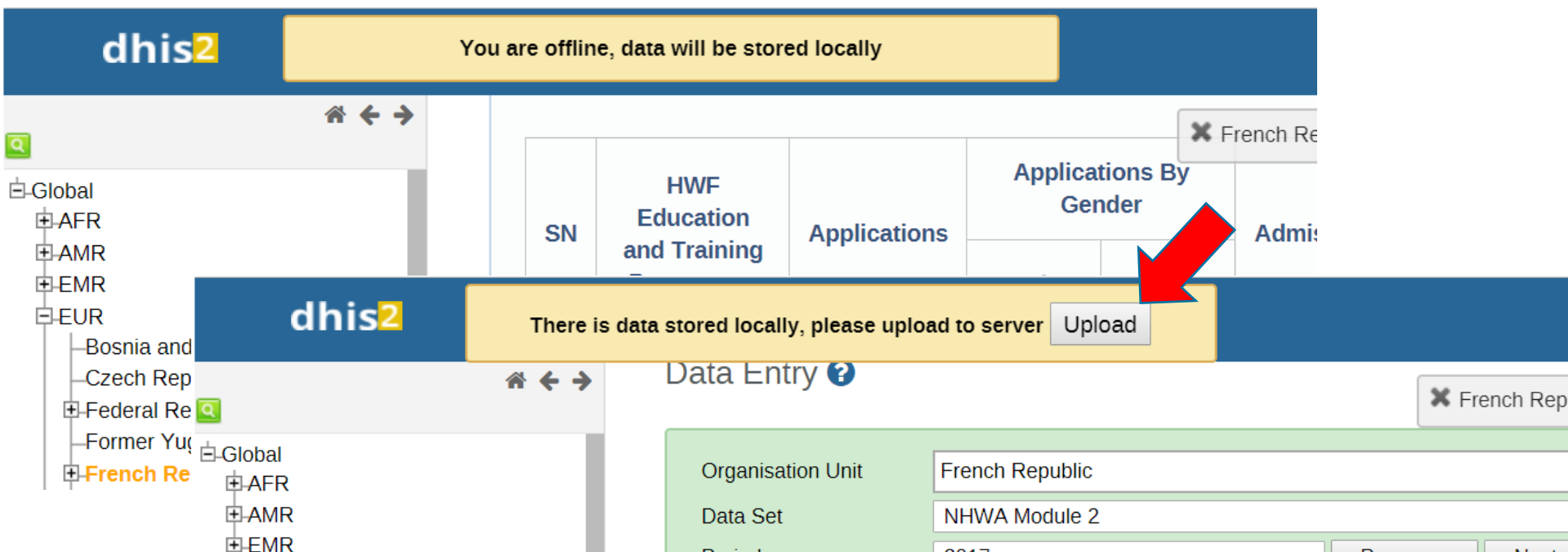
Editing

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What if I am temporarily disconnected from internet?

- A message can sometimes indicate change of status from online to offline



The screenshot displays the DHIS2 web application interface. At the top, a blue header bar contains the 'dhis2' logo and a yellow notification box stating 'You are offline, data will be stored locally'. Below this, a navigation sidebar on the left lists various regions, with 'French Republic' highlighted. The main content area features a table with columns for 'SN', 'HWF Education and Training', 'Applications', and 'Applications By Gender'. A red arrow points to a yellow notification box at the bottom of the table that reads 'There is data stored locally, please upload to server' and includes an 'Upload' button. The bottom of the interface shows a 'Data Entry' section with fields for 'Organisation Unit' (French Republic) and 'Data Set' (NHWA Module 2).

Why entered data do not display in graph or tables?

- You just entered a data in the form and you do not see it in the graphs, where is it?
- The data is properly saved, however they would be ready for analysis after analytics have run (twice a day).

Tutorial video and user guide

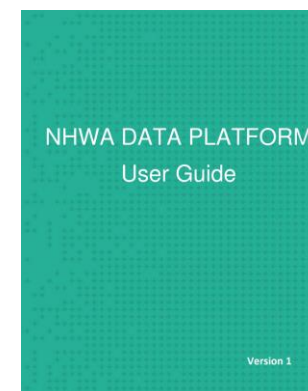
NHWA maturity assessment tutorial: <https://vimeo.com/265561781/f446326134>

Data entry tutorial: <https://vimeo.com/265561404/0e6d7301ba>



NHWA User guide

- Guides users to navigate through the system
- Detailed steps for data entry and data visualizations
- Accessible from the NHWA data platform



Where to find the user guide?

NATIONAL HEALTH WORKFORCE ACCOUNTS ONLINE DATA PLATFORM



Welcome Mathieu BONIOL

User Guide

Logout

NHWA maturity assessment



NHWA maturity assessment enables countries to assess their national information system and its capacity to address the NHWA indicators.

Validate existing baseline data



The validation exercise enables countries to view existing data and undertake necessary action of data correction/update as required.

NHWA data entry

Data entry into the system can be done (i) directly through the system interface or (ii) as batch upload through excel sheets

Exercises – part I

1.1 – Connection <https://extranet.who.int/dhis2-demo/dhis-web-commons/security/login.action>

1.2 – Assess availability of NHWA indicators in your country
(**maturity assessment**)

1.3 – **Validation** : Display and assess the data already available in the platform

1.4 – **Data entry** : enter data

1.5 – Add **comments and sources**

Thank you



World Health
Organization

WHO

20, Avenue Appia
1211 Geneva

Switzerland

Contact us:
hrhstatistics@who.int

<https://www.who.int/hrh/statistics/nhwa/en/>