National Health Workforce Accounts
Online Platform – part II

Functions and visualization
Exercises: Data approval, pivot tables, graphs, dashboard

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NHWA data platform for countries
Welcome Aurora Saare

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 pre-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 system.
- Dashboard
  Access to an interactive dashboard
- NHWA reports
  Access to the NHWA reports

Other Useful features

- Browser Cache Cleaner
  Enables the users to clear the browser cache.
- Data Quality
  Enables the users to run data quality checks such as validation and Std dev outlier analysis.
- Messaging
  Enables the user to communicate system and give feedback.
- User Profile
  Enables the user to set his profile and account credentials.

Approval

Enables the users to approve the data submitted in the system.
Data approval

Approval status: Please make a selection below

Data set:
NHWA Module 1

Report period:
Yearly ▼ Prev year Next year 2023 ▼

Report organisation unit:

Data Approval

Approval status: Ready for approval

Active Health Workforce Demographic Details

Access the NHWA HANDBOOK
Access the NHWA USER GUIDE
Access the NHWA OCCUPATION MAPPING

SECTION 1: HWF WORKING DETAILS
NHWA landing page

Welcome

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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 apply static 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

Access to an interactive dashboard

NHWA reports
Access to the NHWA reports
**Pivot tables**

- User can select country, year, indicator to create pivot table
- Export in various formats
  - Tabulated (xlsx, csv, HTML etc)
  - Raw data (JSON, XML etc)
Pivot table, interface

Data selection

Terminology:

- Data (indicators, data element)
- Periods (year)
- Organisation unit (country)
**DHIS 2 Pivot Tables**

**Data**

**Periods**

- **Yearly**

**Days**

- Today
- Yesterday
- Last 3 days
- Last 7 days
- Last 14 days

**Bi-months**

- This bi-month
- Last bi-month
- Last 6 bi-months
- Bi-months this year

**Financial years**

- This financial year
- Last financial year
- Last 5 financial years

**Weeks**

- This week
- Last week
- Last 4 weeks
- Last 12 weeks
- Last 52 weeks
- Weeks this year

**Quarters**

- This quarter
- Last quarter
- Last 4 quarters
- Quarters this year

**Months**

- This month
- Last month
- Last 3 months
- Last 6 months
- Last 12 months
- Months this year

**Six-months**

- This six-month
- Last six-month
- Last 2 six-months

**Years**

- This year
- Last year
- Last 5 years

**Organisation units**
Manipulate a table/graph/…

Layout: manage table
Save/open a table/ graph/…

Under the “favorites”:
- Save the table/ visual (save as)
- Search for saved and shared tables (open)
- Set Shared settings to NHWA team (share)
Defining sharing settings
### Stock: Data Validation Table

<table>
<thead>
<tr>
<th>Data / Period</th>
<th>2000</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical doctors not further defined Stock Total</td>
<td>1,236,328</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Medical Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialist Medical Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen Paediatricians Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetricians and Gynaecologists Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatrists Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Specialists Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical Specialists Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Specialists Practitioners Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses not further defined Stock Total</td>
<td>3,472,675</td>
<td>3,303,602</td>
<td>1,999,928</td>
<td>1,601</td>
<td>1,052,063</td>
<td>4,002,883</td>
</tr>
<tr>
<td>Nursing Professionals Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>279</td>
<td></td>
</tr>
<tr>
<td>Nursing Associate Professionals Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Midwives not further defined Stock Total</td>
<td>1,254</td>
<td>5,509</td>
<td>3,351</td>
<td>2,504</td>
<td>6,297</td>
<td>1,523</td>
</tr>
<tr>
<td>Midwifery Professionals Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwifery Associate Professionals Stock Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentists Stock Total</td>
<td>399,549</td>
<td>266,503</td>
<td>238,264</td>
<td>219,438</td>
<td>279,275</td>
<td>440,777</td>
</tr>
</tbody>
</table>

#### Table Layout
- **Microsoft Excel (.xls)**
- **CSV (.csv)**
- **HTML (.html)**

#### Plain Data Source
- **JSON**
- **XML**
- **Microsoft Excel**
- **CSV**
- **Advanced**

**Global**

<table>
<thead>
<tr>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,359,262</td>
<td>1,347,928</td>
<td>544,400</td>
<td>544,540</td>
<td>613</td>
</tr>
</tbody>
</table>
Data visualization

- Saved Pivot table can be viewed as a chart
- A new chart can be created
- Selection of country, year, indicator to create graphs
- Data and graphs can be exported in various formats:
  - Graphical (png, pdf)
  - Tabulated data (xlsx, csv, HTML etc) or raw data

DHIS 2 Data Visualizer

Validity scale by Middle

| Year | MDG - Active Health Maintenance Stock | MDG - Education and Training | MDG - Education regulation & accreditation | MDG - Education finance | MDG - Health policy and infrastructure | MDG - Health sector health financing | MDG - Health sector health financing 

2015

| MDG - Active Health Maintenance Stock | 28.08 |
| MDG - Education and Training | 50.3 |
| MDG - Education regulation & accreditation | 50.4 |
| MDG - Education finance | 50.5 |
| MDG - Health policy and infrastructure | 50.6 |
| MDG - Health sector health financing | 50.7 |

Density of Medical Doctors per 10,000 population
Dashboards

NATIONAL HEALTH WORKFORCE ACCOUNTS ONLINE DATA PLATFORM

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  - GIS
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  - NHWA reports
    - Access to the NHWA reports

Dashboard
- Access pre populated data infographics based on existing data
  - Access to an interactive dashboard
Dashboard

- Display tables and graphs already created, prepopulated dashboards by NHWA module
- Possibility to create your own dashboards
Dashboards

- Add tables, charts to existing dashboards or create a new dashboards, mark favorite dashboards

- Set shared settings to NHWA country team /NHWA regional team
  - Not to be public
Maturity assessment dashboard

- NHWA dashboard presents the assessment results for easy interpretation and becomes a valuable resource for stakeholders dialogue at the national level.

- Green indicates that country has the country ‘has data on’ a particular indicators, while Red indicating that ‘country does not have data ’ on a particular indicators
Other tools

Country profiles (in “report”)

Messaging
Welcome Aurora Saare

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Data entry through the system interface  Batch upload through Excel sheets

Visualization data

Access programmed data infographics or create customized data visualization 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 the data system.

Dashboard

Access to an interactive dashboard.

NHWA reports

Access to the NHWA reports.

Other useful features

Browser Cache Cleaner

Enables the users to clear the browser cache.

Approval

Enables the users to approve the data submitted in the system.

User Profile

Enable the user to set his profile and account credentials.
Resources

https://www.who.int/hrh/statistics/nhwa/en/
Contact us at hrhstatistics@who.int
Exercises – part II

Connection [https://extranet.who.int/dhis2-demo/dhis-web-commons/security/login.action](https://extranet.who.int/dhis2-demo/dhis-web-commons/security/login.action)

- 2.1 – Approve data entered yesterday
- 2.2 – Pivot table
- 2.3 – Data visualizer
- 2.4 – Dashboard
Connection [https://extranet.who.int/dhis2-demo/dhis-web-commons/security/login.action](https://extranet.who.int/dhis2-demo/dhis-web-commons/security/login.action)

**Exercise 1 – Data approval**
- On landing page, go to Approval
- Select module and year you entered data yesterday
- Review the data and approve

**Exercise 2 – Pivot table**
- Go to pivot table
- Select data element, all data elements → nursing personnel stock (use search function)
- Select period (year you entered data)
- Save the table and define sharing settings for certain groups: NHWA Country team, NHWA Regional team and NHWA Global team, eventually share as visualization only for participants of the same country.
Exercise 3 – Visualization

- Click Chart in top right corner → open this table as a chart
- Visualize in
  - Line plot with data from Table 1
  - Bar chart with data from Table 1
  - Pie chart with data from Table 2
- Save charts and define sharing settings (as per exercise 2)

Exercise 4 – Dashboard

4.1. Create a Dashboard with pivot tables and charts created in exercises 2 and 3.
4.2. Define sharing settings of your Dashboard.
4.3. Add comments and save as favorite
Thank you

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