WHO Integrated Data Platform (WIDP)

IT Challenges and solutions of a global platform

DHIS2 Annual conference, Oslo, 18 June 2019
WIDP OU TREE: SYNC CHALLENGES
WIDP OU Tree: Challenges

- Having a global and shared DHIS2 instance like WIDP raises additional challenges for the management and synchronization of the OU

- Same OU tree shared by programs working in different parts of the world -
  - Require coordination and prioritisation
  - Increase the size of the OU tree

- Different programs may be sharing the same parts of the tree
  - Require consensus on the org unit subtree per territory

- Different programs work at different levels
  - Global, national, 1/2/3 subnational levels, villages, health facilities

- Results in having currently ~110 000 Org Units (and growing)

- Constantly changing subnational levels of countries (e.g., Ghana, France)

- Correct and consistent org unit tree is essential for proper data management in DHIS2
WIDP OU Tree: Request procedure

- Issue tracking system (Redmine) to support for the process
- Training of WIDP users
WIDP OU Tree: External sources

- Variety of sources for countries’ subnational levels
  - **Org unit tree provided by the country** if the country has a national DHIS2 instance.
    All information required, but at least name, code, uid and coordinates, if available
  - UN Office for the Coordination of Humanitarian Affairs (OCHA) - [https://www.unocha.org/](https://www.unocha.org/)
  - Document (e.g. Excel and/or shapefiles) from an official source in the country: programme focal point, HMIS team, national institute of statistics…
  - Document (e.g. Excel and/or shapefiles) from another source after validation by an official from the country
  - Document (e.g. Excel and/or shapefiles) from any other source

- Considered with priorities
WIDP OU Tree: Extraction scripts

- Variety of formats from different sources require specific processing
  - JSON, XML, Excel
  - Different level of details (available attributes)
  - Different subnational level depth (region, province, municipality…)

- Conversion scripts to import org units to WIDP
  - Format conversion
  - Attribute mapping
  - parent-child relationships

- +info:
  - OCHA: https://github.com/WISCENTD-UPC/OCHA-2-DHIS2
  - Polio GeoDB: https://github.com/WISCENTD-UPC/polioDB-2-DHIS2
WIDP OU Tree: Use cases

- **Uganda**
  - Recollected from the country’s DHIS2 instance for Malaria
  - Integrated into WIDP org unit tree shared with other programs
  - Facility lists provided per program

- **Italy - Chagas**
  - Italian institute of statistics - [https://www.istat.it](https://www.istat.it)
  - Excel file to the municipality level
  - Focal point to validate & provide health facility list linked with the tree
WIDP OU Tree: Spatio-temporal support

- Country subnational levels structure and boundaries do change over time
- Spatio-temporal support needed
- DHIS2 should allow users to analyze data through geographies with temporal reference
  - Org units with temporal validity
**Takeaways for OU Tree sync**

- Establish a protocol and best practices on collaborative/shared orgUnit Tree management
- Community-maintained list of OU sources (hosted by UiO)
- Community-maintained repository of source-specific conversion scripts (Polio GeoDB, OCHA,..)
- Spatio-temporal solution for org unit and boundaries evolution/versioning
- DHIS2 community discussion: https://community.dhis2.org/t/shared-org-unit-tree-management/