New developments in the DHIS2 entomological surveillance toolkit

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Outline

1. The DHIS2 entomological surveillance toolkit
2. Review of contents
3. Review of main features
4. Entomological and vector control activities covered
5. New individual mosquito data collection module
6. New LLIN campaign metadata modules
7. New IRS campaign metadata modules
8. New implementation support apps
Goals of the toolkit

Help countries to

- Collect, collate, interpret and use entomology and vector control data in a standard manner
- Support integrated vector control strategies (one information platform for all vectors)
- Integrate entomology and vector control data with epidemiological data
- Centralize and digitize historical data
- Ease global data reporting
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The toolkit

DHIS2 standard module for entomology and vector control

1- CUSTOMIZE
2- INSTALL
3- BUILD CAPACITY
4- INTEGRATE HISTORICAL AND PARTNER DATA
5- REPORT DATA

DHIS2 standard modules + NEW implementation apps

Global Malaria Programme
Review of contents of the standard modules

- Standard data collection forms
- Automatically calculated indicators: campaign coverage, mosquito mortalities, sporozoite rate, HBR, EIR, etc.
- Data analytics updated on the fly: tables, graphs and maps
- Customizable thematic dashboards
Review of main features

- **Free** of charge
- Integration in existing DHIS2 implementations- **low maintenance costs**
- **Offline** or online data collection from cell phones, tablets or computers.
- Captures **geolocation**
- **Multilingual**: English, French, Spanish and Portuguese, countries can translate it into any other language.
Activities covered and new developments

Vector control
• LLIN campaigns (summary-WHO, NEW daily household level data-PSI)
• LLIN bio efficacy (i.e. cone bioassays)
• IRS campaigns (summary-WHO- NEW daily and structure level data-PMI)
• IRS residual efficacy (i.e. cone bioassays)

Entomology
• Insecticide resistance monitoring (all standard bioassays)
• Adult surveillance (aggregated and individual mosquito field and lab data)
• Breeding site mapping and monitoring
New individual mosquito data collection module

End-to-end data flow: connecting field work, insectaries and labs

For each mosquito the following information can be collected
- Morphological identification
- Molecular identification
- Sporozoites detection
- Blood meal analysis
- Resistance mechanisms
- Gene sequencing
New LLIN campaign modules

MODULE 1: Summary reporting form
- Beneficiary estimates data
- Registration data (population and households)
- Distribution data
  - Includes stock management
- Standard campaign monitoring indicators
- Dashboard
- *Frequency of data collection of choice: daily, weekly, monthly*

MODULE 2: Data collection per household (Tracker)
- Household registration (digital HH registry)
- ITN distribution to household
- Standard campaign monitoring indicators
- Dashboard

Contributed by PSI
New IRS campaign modules (being integrated)

MODULE 1: Daily reporting form
- Bottle consumption
- Population in sprayed structures (by group)
- Structures and rooms found/sprayed
- Standard campaign monitoring indicators
- Dashboards
- *Frequency of data collection of choice: daily, weekly, monthly*

MODULE 2: Data collection per structure
- Household ID
- Rooms found/sprayed
- Population living in sprayed structures (by group)
- Standard campaign monitoring indicators
- Dashboard
Implementation support apps

1- CUSTOMIZE
D2-Docker
Enables customization of standard modules to country context

2- INSTALL
MetaData Sync App
Facilitates import of standard modules and data reporting

3- BUILD CAPACITY
Training App
Provide interactive training on data collection and visualization process through DHIS2.

4- INTEGRATE HISTORICAL AND PARTNER DATA
Bulk Load App
Generates excel templates to import historical data and data from other systems

ADDITIONAL TOOLS
User Extended App
Facilitate user creation and management

WHO Metadata Browser
Eases exploration of the contents of the standard packages

DHSI2 Google Earth Engine App
Brings weather, climate and environmental data into DHSI2 to understand their impact in disease trends
Welcome to training on DHIS2

What do you want to learn in DHIS2?

- Entering data
- Visualizing data
- Exporting/importing data to/from Excel

Learn how to enter insecticide resistance data

Learn how to enter data for each activity

Select a tutorial below to learn how to enter insecticide resistance data into specific forms:

1. Discriminating Concentration Bioassay

What will this tutorial cover?

1. Select your sentinel site
2. Select data category
3. Select other data
4. Enter data in a new form
5. Mark form as complete
6. Save and submit form
7. Format and sort summary table
8. Download data
New Bulk Load App

Template
Select template to export...

Organisation units
- Select available organisation units to include in the template

Advanced template properties
- Language
  - English

DOWNLOAD TEMPLATE

Bulk data import
Drag and drop file to import

Select Import Organisation Unit

IMPORT DATA
Contributing partners

- IRS campaigns metadata (daily, structure)
- Collaborated on entomology module refinements building on PMI VectorLink DHIS2 modules

- ITN metadata (daily, household)
- Support countries monitoring ITN continuous distribution through DHIS2

Support countries to implement the DHIS2 modules and build capacity.

• Introductory video: https://drive.google.com/file/d/1AG3GfXd8vWae-F0v_0n-C61_hnerVXT-/view

• Life demo: https://extranet.who.int/dhis2-ento-vc

• Configuration files: https://github.com/WorldHealthOrganization/DHIS2-standard-packages-nonHF/tree/GMP/VCR

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Moving towards better-informed decisions