Malaria Modules for DHIS2

Strengthening Malaria Surveillance at Country Level
In Burden Reduction and Elimination settings

Oslo — 17 June 2019
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Global Malaria Programme

World Health Organization
What is the definition of surveillance?

- the continuous and systematic collection, analysis and interpretation of disease-specific data
- the use of that data in the planning, implementation and evaluation of public health practice

Why is surveillance critical?

- to support reduction of the burden of malaria
- contribute to the elimination of malaria and prevention of re-establishment
Surveillance as a Critical Pillar of the Global Technical Strategy

Global technical strategy for malaria 2016–2030

Pillar 1
Ensure universal access to malaria prevention, diagnosis and treatment

Pillar 2
Accelerate efforts towards elimination and attainment of malaria-free status

Pillar 3
Transform malaria surveillance into a core intervention

Supporting element 1. Harnessing innovation and expanding research

Supporting element 2. Strengthening the enabling environment
Role of Surveillance in Three Types of Settings

1. In high transmission settings:
   - provide data for overall analysis of trends
   - permit stratification and planning of resource allocation.

2. Where malaria is being eliminated:
   - identify infections early to reduce onward transmission
   - determine the most likely location of infection
   - identify, investigate and eliminate foci of continuing transmission

3. Preventing re-establishment:
   - identify imported cases early to prevent local cases
   - identify outbreaks quickly to prevent re-establishment.
Surveillance Characteristics Along the Continuum

- **Recording**
  - Outpatient and inpatient registers
  - Monthly
  - Aggregate cases by sex and age

- **Reporting frequency**
  - Brief case forms
  - Weekly
  - Line list of cases

- **Resolution of reported data**
  - Extensive individual case forms
  - Immediately
  - Individual detailed case reports

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Malaria Modules

Aggregate data:
- Core data elements and Indicators
- Burden Reduction and Elimination
- Dashboards and Malaria bulletin

Case-based, individual patients:
- Tracker
- Data entry forms
- Indicators
- Dashboards and Malaria bulletin
Based on WHO recommendations

- Global Malaria Program guidelines
  - Malaria surveillance reference manual
  - A framework for malaria elimination

- Consultations
  - WHO regions
  - Member states
  - Partners
    - USAID/PMI
  - Global Fund
  - BMGF
  - CHAI / Malaria Consortium
  - Technical Expert Group (M&E TEG)
  - MERG (RBM - Monitoring and Evaluation Working Group)
Standard reports (BR-dashboard)

Burden reduction
Standard reports (EL-dashboard)

Elimination
Malaria Module integrates into a broader disease surveillance tool for the countries

- DHIS health apps based on the international standards (indicators, metadata, data quality metrics, analysis)
- Cross-cutting (health systems, clinical services)
  - Core indicators and metadata
  - Data quality review
  - National & district health planners dashboards
- In-depth modules for disease/programme specific analyses
  - HIV, TB, malaria, immunization (completed)
  - RMNCAH, NCDs, NTDs, nutrition, birth registration, surveillance (planned)
Case-based
Individual patient data
Case based: designing tracked events

- Patient profile (Generic)
- Malaria diagnosis and treatment
- Case investigation
- Foci investigation
- Response or Foci management

Triggered by **suspected** case

Triggered by positive cases

ACD in hard to reach areas and for ascertaining infection level.

PCD triggered by suspected cases

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Within one day:
- at local health facility
  - All cases of suspected malaria
  - Diagnosis by microscopy or RDT; treatment with recommended antimalarial agent
  - Case investigation form filled, preliminary case classification may be done, case notification by health worker to field team within one day

Within three days:
- case investigation team
  - Imported
  - Locally acquired (indigenous, introduced)
  - Index case classification confirmed
  - Further investigation of index case and detection of other cases in the household

Within seven days:
- focus investigation team
  - Focus investigation (including expanded case detection, entomological, ecological and intervention assessments)
  - Active focus
  - Residual non-active
  - Cleared
  - Response

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Individual case based data forms

Patient registration (patient Id)

Diagnosis, confirmation and Treatment

Case investigation

Foci investigation
Seamless integration

- National
- Province
- District A
- District B

Monthly summary

Individual patient data

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The packages can be:

- **Aggregate: Burden reduction and Elimination scenarios**
  - Easily installed on new systems
  - Integrated into existing installations
    - Requires technical assistance
  - Package content can be updated from the WHO website
    [https://www.who.int/healthinfo/tools_data_analysis_routine_facility/en/](https://www.who.int/healthinfo/tools_data_analysis_routine_facility/en/)

- **Case-based**
  - Installation similar to aggregate module
  - Currently in the process finalizing the package
    - On-going country implementations
  - Will be posted to our website
THANK YOU