Update on recent and ongoing GMP initiatives on malaria entomology and vector control

13th Annual Meeting of the RBM Vector Control Working Group
Geneva, Switzerland
7 – 9 February 2018
Overview

1. Global Vector Control Response 2017-2030
2. Malaria Vector Surveillance
3. Evaluation of Vector Control Tools
4. Implementation Guidance
5. Advocacy
1. Global Vector Control Response 2017-2030

- Draft document and draft resolution discussed at 70th WHA: 31 May 2017
  - Positive interventions made by countries from across all WHO regions, including:
    - 3 regional statements (Africa, Eastern Mediterranean & South-East Asia)
    - 36 country statements
  - Adopted without amendment:
    - Resolution WHA70.16: an integrated approach for the control of vector-borne diseases
1. Global Vector Control Response 2017-2030

- Final GVCR document released:
  - English: October 2017
  - Arabic, Chinese, French, Spanish, Russian: pending (draft only)

- Other supporting documents:
  - Lancet commentary: June 2017
  - Advocacy brochure: September 2017
  - Online Q&As: September 2017
www.who.int/vector-control

- Thematic webpage that consolidates all links and resources across vector-borne diseases
- Includes disease outbreak notifications
1. Global Vector Control Response 2017-2030

- Framework for a National Vector Control Needs Assessment
  
  *English version published November 2017*

- Updates anticipated
  *To be revised based on experience from operational use and from GVCR implementation and progress*

- Translations to be considered following revision
2. Malaria Vector Surveillance

- National IR monitoring & management framework released:
  - English: March 2017
  - Spanish: June 2017
  - French: July 2017
- Webinars held:
  - English: July 2017
  - Spanish: July 2017
- Other supporting documents released:
  - Key points (English, French, Spanish): July 2017
  - Q&As (English, French, Spanish): July 2017
  - Presentation (English, French, Spanish): July 2017
2. Malaria Vector Surveillance

- Malaria Threats Map Application:
  - *Vector* insecticide resistance
  - *hrp2/3* gene deletions
  - Drug efficacy and resistance

- Beta application online live:
  - English, French, Spanish: October 2017
  - who.int/malaria/maps/threats

- Feedback requested:
  - Online form to capture functionality/data issues and suggestions for improvement

- Consultations ongoing:
  - To define specifications for Phase II development
2. Malaria Vector Surveillance

- Malaria surveillance, monitoring and evaluation: An operational manual
- Chapter 5 – Entomological surveillance and response
  - Describe entomological indicators for monitoring and evaluation of vector control interventions.
  - Consideration for entomological surveillance by transmission settings – burden reduction, elimination and prevention of re-establishment.
  - Emphasis on evidence based decision in vector control
3. Evaluation of Vector Control Tools


3. Evaluation of Vector Control Tools

- Vector Control Advisory Group (VCAG) advise WHO on public health value of new tools, technologies and approaches for vector
- 6th VCAG convened 26-28 April 2017
- 7th VCAG convened 24-26 Oct 2017
- Evidence Review Groups under VCAG
  - Trial Design - 24-25 April 2017
3. Evaluation of Vector Control Tools

• ERG on epidemiological trials for vector control products: recommendations on hierarchy of trial designs, consideration for randomisation, endpoints, and measurement of cost effectiveness.

  Report published July 2017

• WHO manual on Design Vector Control Efficacy Trials: Guidance on Phase III vector control field trial design provided by VCAG

  Manual published December 2017
ERG on pyrethroid-PBO nets reconvened in June 2017 to review new evidence from a cluster randomized controlled trial in Muleba, Tanzania, on the comparative impact of a pyrethroid-PBO net when compared to a pyrethroid-only LLIN.

Revised recommendations published September 2017 / December 2017.
3. Evaluation of Vector Control Tools

- WHO recommends that NMCPs consider deployment of pyrethroid-PBO nets in areas where the main malaria vector(s) have:
  - confirmed pyrethroid resistance of intermediate level (10-80% mortality) conferred (at least in part) by monooxygenase-based resistance mechanism
- WHO endorsed pyrethroid-PBO nets as a new class of vector control product
3. Evaluation of Vector Control Tools

ERG held September 2017 to:

**Part 1**
- To advise WHO on data requirements and methodology to determine whether existing WHO policy for a class of products can be extended to recommend deployment of a new vector control intervention that is not part of the class
- To apply criteria formulated under objective 1 to the assessment of SumiShield® 50 WG

**Part 2**
- To advise WHO on data requirements and methodology to determine whether new vector control products that enter an established class should be assessed for similar or better performance than the first-in-class product.
- To advise WHO on the data requirements and methodology to assess products with two active ingredients and process to establish a new product class

- ERG presented to MPAC in October 2017
- SumiShield® 50 WG prequalified in November 2017
- Recommendations published December 2017
4. Implementation Guidance

- Universal Coverage Recommendations:
  - Revision initiated after March 2017 VCTEG meeting to include new finding on user preferences and ITN use.
  - Presented to MPAC in October 2017.

*Published December 2017*
5. Advocacy

World Malaria Report 2017
• After an unprecedented period of success in global malaria control, progress has stalled.

Ongoing & Planned Work, 2018/19
1. Global Vector Control Response 2017-2030

- Support to development of regional action plans:
  - South-East Asia Region
  - Eastern Mediterranean Region
  - African Region

- Support to development of country Vector Control Needs Assessments
  - Work ongoing in Greater Mekong Subregion (6 countries)

- Insecticide impregnated papers and WHO test kits for insecticide resistance monitoring
  - Comprehensive assessment of impediments to timely production, supply and quality
  - Development of prioritized and costed solutions to overcome these impediments

Global Malaria Programme
2. Malaria Vector Surveillance

- Malaria Threats Map Application
  - Phase II development, incl mobile app
  - Data update

- Malaria surveillance, monitoring & evaluation manual
  - 1st edition to be published March 2018

- Development of DHIS 2 entomological surveillance module

- Global status report on insecticide resistance
  - Undergoing editing. Publication May 2018

- Expanding on guidance for elimination settings
  - ERG on assessing and using receptivity (Q3 2018)

- Manual on practical entomology in malaria (1975)
  - Comprehensive revision to be undertaken during 2018
3. Evaluation of Vector Control Tools

- **Vector Control Advisory Group (VCAG)**
  - Manager recruited: Likely start date April 2018
  - WHO PQT now part of the VCAG secretariat
  - Communication and process to be enhanced during 2018
  - Membership composition evolving: Gene drive and regulatory expert to join as of next meeting. Product development expert not yet identified.
  - Next meeting 14-16 May 2018

- **Evaluation process**
  - Update documentation to reflect implementation experience to date

- **Evidence Review Group**
  - ERG to determination of non-inferiority planned for 2018. Background work on methodology started.

- **Prioritization**
  - Background work on economics initiated
  - Guidance on collection of cost data alongside trials to be developed & included in trial design manual
Guidelines for prevention of malaria through vector control:

- Modelled on guidelines for the treatment of malaria
- Development following WHO Handbook for Guideline Development
- 1st edition undergoing editing in preparation for MPAC and GRC
- Likely publication mid-2018
- Work on 2nd edition to be initiated including:
  - Systematic review of non-RCT evidence on IRS
  - Detailed review and update of economics literature and preparation of GRADE table sections on resource use
5. Advocacy

- WHO technical consultation on universal access to core malaria interventions
  - 12-15th February 2018
- World Malaria Report 2018
Thank you!

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