
VCWG IRS IRM Priorities Work Stream

2nd Meeting February 2017

Feedback



Agenda

Time	Speaker	Title
08:30	Mark Hoppé Dereje Dengela	Welcome and introduction
08:35	Dr Mike Coleman	Spatiotemporal patterns of Insecticide Resistance
08:50	Dr Florence Fouque	Update on the Worldwide Insecticide resistance Network, WIN
09:00	Dr Tessa Knox	Implications of insecticide resistance for malaria vector control: outcomes from a WHO-coordinated multi-country evaluation
09:20	Dr Matt Thomas	Exploring the epidemiological impact of insecticide resistance
09:35	Dr John Vontas	Evidence based IRM
09:50	Dr R S Sharma	The impact of IRS on malaria control in India
10:05		Coffee break – 30 minutes

Agenda

Time	Speaker	Title
10:05		Coffee break – 30 minutes
10:35	Dr David McGuire	NgenIRS project update
10:50	All	Open discussion/idea generation, “how can we practically implement the GPIRM”
11:10	Mark Hoppé	IRM MOOC – proposal for the creation of an IRM training course
11:25	Mark Hoppé Dereje Dengela	Wrap up and review of actions
11:30		Finish

Feedback

Mike Coleman, Spatiotemporal patterns of Insecticide Resistance

- **Key points:**
 - Historic data often relates to where the researchers were, and what was the “exciting” research of the day
 - IR data from diverse sources are being collated into formats that enable them to be useful
 - MAP-IR is producing regional maps of insecticide resistance risk maps
 - Question, should the data be presented by species, or by behavioural characteristic, e.g. outdoor biting?
- Can the white areas of the maps be targeted for data collection?
- Challenges of IR monitoring with changing protocols over time
 - Relevance of using 3 – 5 day old female mosquitoes?

Florence Fouque, Update on the Worldwide Insecticide resistance Network

- Knowledge of IR in *Aedes spp* is sparse
- However, a lot of interest, 73,000 live streamed the recent WIN meeting in Rio
- More *Aedes* control is undertaken by private sector, how do we interact with them?
- How to interact with the agricultural insecticide using community?

Tessa Knox, Implications of insecticide resistance for malaria vector control: outcomes from a WHO-coordinated multi-country evaluation

- **Conclusions: insecticide resistance is variable**
- **No evidence of an association between IR and disease burden**
- **Evidence that LLIN provide personal protection**
- **Switch from pyrethroid IRS to non-pyrethroid IRS halved risk of malaria**
- **We should not come away with a simplified view of ‘nets still work, no need to worry’**
- **No room for complacency**

Matt Thomas, Exploring the epidemiological impact of insecticide resistance

- **Standard bioassays may over estimate operational impact of IR**
- **Higher mosquito mortality in real world**
- **Less blood feeding, host seeking, after non-lethal exposure**
- **Transmission model lifetime of mosquitoes**
- **Impact of resistance is very sensitive to coverage, as resistance increases, control failure may accelerate**
- **Possibly reach a tipping point, particularly in areas of low LLIN coverage**

John Vontas, Evidence based IRM

- **Molecular assays for resistance are sophisticated, but few markers for metabolic resistance, and very expensive \$15-20 per mosquito for full suite**
- **Combination with bioassays leads to much greater insights and possibly different recommendations for IRM**
- **New tools have a place in IRM, e.g. biotech crops, reducing the need for insecticide use in agriculture**

RS Sharma, The impact of IRS on malaria control in India

- **IRS works**
- **Need to have an effective programme in place**
- **Modern technology, GPS, etc., has a useful place**

David McGuire, NgenIRS project update

- Co-payment scheme has been successful in increasing coverage of 3G IRS
- Looking to expand programme, bringing in new partners
- Extra 2.1 million people protected by 3G IRS in 2016
- Could reach extra 6.8 million in 2017
- All targets met or exceeded, larger demand for project than can be afforded...

Proposal IRM MOOC

- It is proposed to create an IRM MOOC based on the principles outlined in the GPIRM
- The MOOC will be open to anyone to undertake and will be delivered free to the participant
- It is expected that the course will take between 10 and 12 hours to complete over a three or four week period, and will be delivered using an engaging multi-media approach, including video, audio and text, and will facilitate online interaction between participants
- After studying the course the participant will have:
 - an understanding of what insecticide resistance is and its impact on vector control
 - the theory and practice of applied IRM and the importance of undertaking IRM in the context of a wider Integrated Vector Management (IVM) approach

IRM MOOC

Activity	Timeframe
Identify the core team who will oversee the course production and delivery. Identify a steering team to ensure the scientific/technical and educational integrity of the course. (Lead educationalist)	Q1 2017
Identify resources required to produce and deliver course Seek funding	Q2 2017
Generate syllabus and structure of course	Q2 2017
Appoint coordinator/producer to manage production of course	Q2 2017
Produce course	Q3 – 4 2017
Review and sign off	Q4 2017
Deliver course	Q1 2018

IRS Newsletter

Proposed to produce an IRS newsletter

Watch this space...