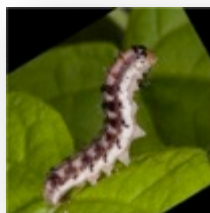




Insecticide Resistance Action Committee

Public Health Team 2015/16

50th IRAC International Meeting, Dublin
April 5-8th, 2016



Team Overview

- Scope: insect vectors of disease and hygiene/nuisance pests
- Identify potential, new or existing resistance issues. Set up Team Working Groups or Focal Points as necessary
- Provide expert input into IRM initiatives with identified partners
- Preparation of Public Health communication material
- Develop IRAC methods for hygiene pests



Team membership

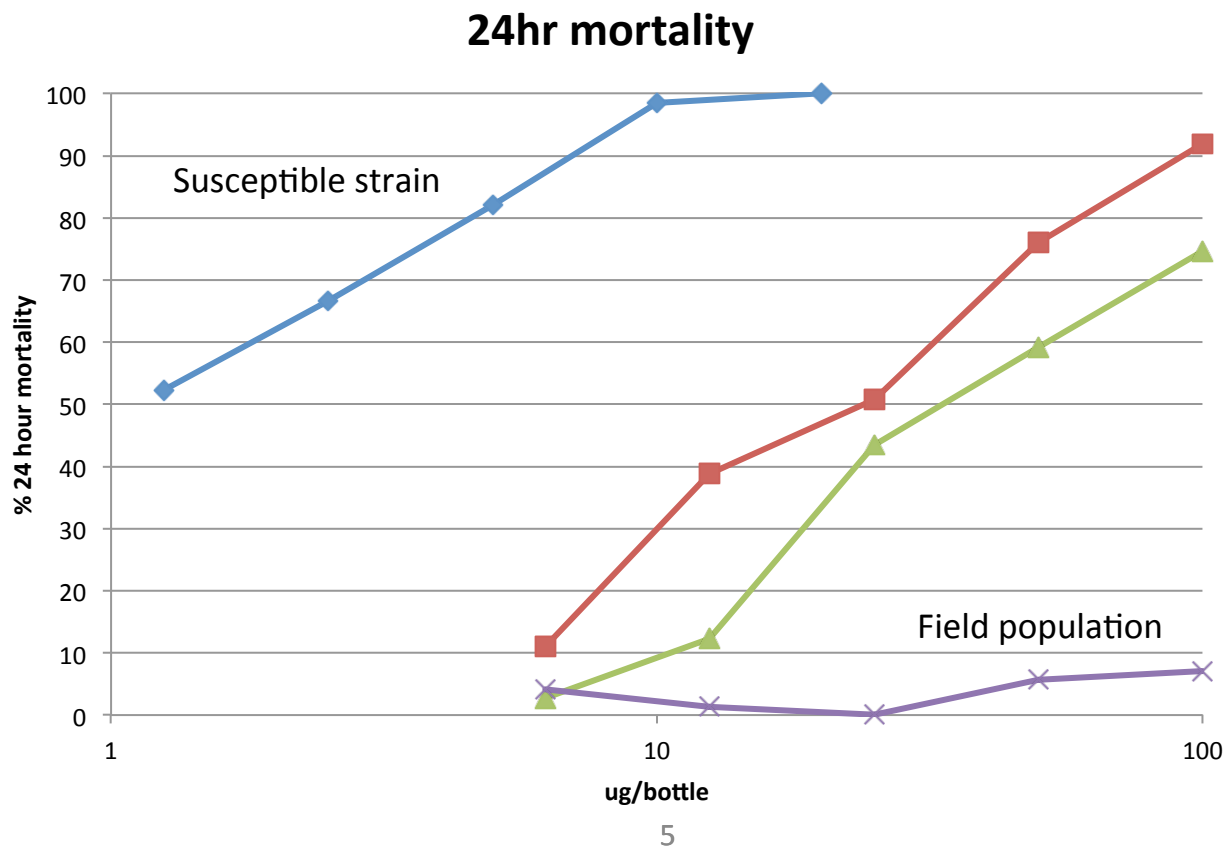
Chair:	Mark Hoppé	Syngenta
Deputy chair:	Helen Pates Jamet	Vestergaard
Members:		
	James Austin	BASF
	Ronda Hamm	Dow
	Sebastian Horstmann	Bayer Crop Science
	John Invest	Sumitomo chemical UK
	John Lucas	Sumitomo chemical UK
	Ralf Nauen	Bayer Crop Science
	Melinda Hadi	Vestergaard deputy rep
	Alan Porter	APA
Non industry observers:		
	David Malone	IVCC

2015 Objectives

Goals	Objectives	Date
Identify potential, new or existing resistance issues. Set up Team Working Groups or Focal Points as necessary	<ul style="list-style-type: none"> • Monitor and report to the Executive on any potential, new or existing national, regional or global resistance issues that could require action by IRAC e.g. Vectors and Hygiene Pests. Research the issues and report to the Executive on a recommended plan of action including the extent of the problem and whether and how it should be best tackled. Set up appropriate PH Team WGs as deemed appropriate for the 2014/15 year. • Investigate the viability of a US “Specialty” IRAC country group (PH/PPM plus other non-ag insecticide uses), support such a group if sufficient interest is found to create it 	Ongoing Q4 2015
Provide expert input into IRM initiatives with identified partners, interact with groups working in the same field and participate/organise relevant meetings.	<ul style="list-style-type: none"> • Set up a schedule of IRAC PH Team conference calls, meetings for 2015/16. Identify and invite relevant experts and observers from groups interested in Public Health IRM e.g. vectors, hygiene pests (WHO, Gates Foundation, IVCC) to participate and ensure that IRAC as an expert group provided input into relevant IRM initiatives. • Promote routes of communication with third parties, to disseminate IRM information, e.g. LinkedIn group • Coordinate activities more closely with CLI VCPT • Support WHO, VCAG, etc., with IRM activities, in liaison with CLI VCPT as appropriate 	Ongoing
Formulate the IRAC position on ongoing questions and issues as these arise	<ul style="list-style-type: none"> • Promote the rational use of mixtures/combinations and synergists in VC • Participate with third parties to identify and promote best practice insecticide resistance monitoring, and results interpretation 	Ongoing
Preparation of Public Health communication material	<ul style="list-style-type: none"> • Review and maintain educational material so that it remains up to date and relevant • Production of educational presentations, based on VM, that can be used by third parties • Develop training modules that can be used for continual education credits in PPM industry • Produce articles on IRM for trade journals, etc. 	Ongoing Q4 2015 Q4 2015 Ongoing

Resistance status update

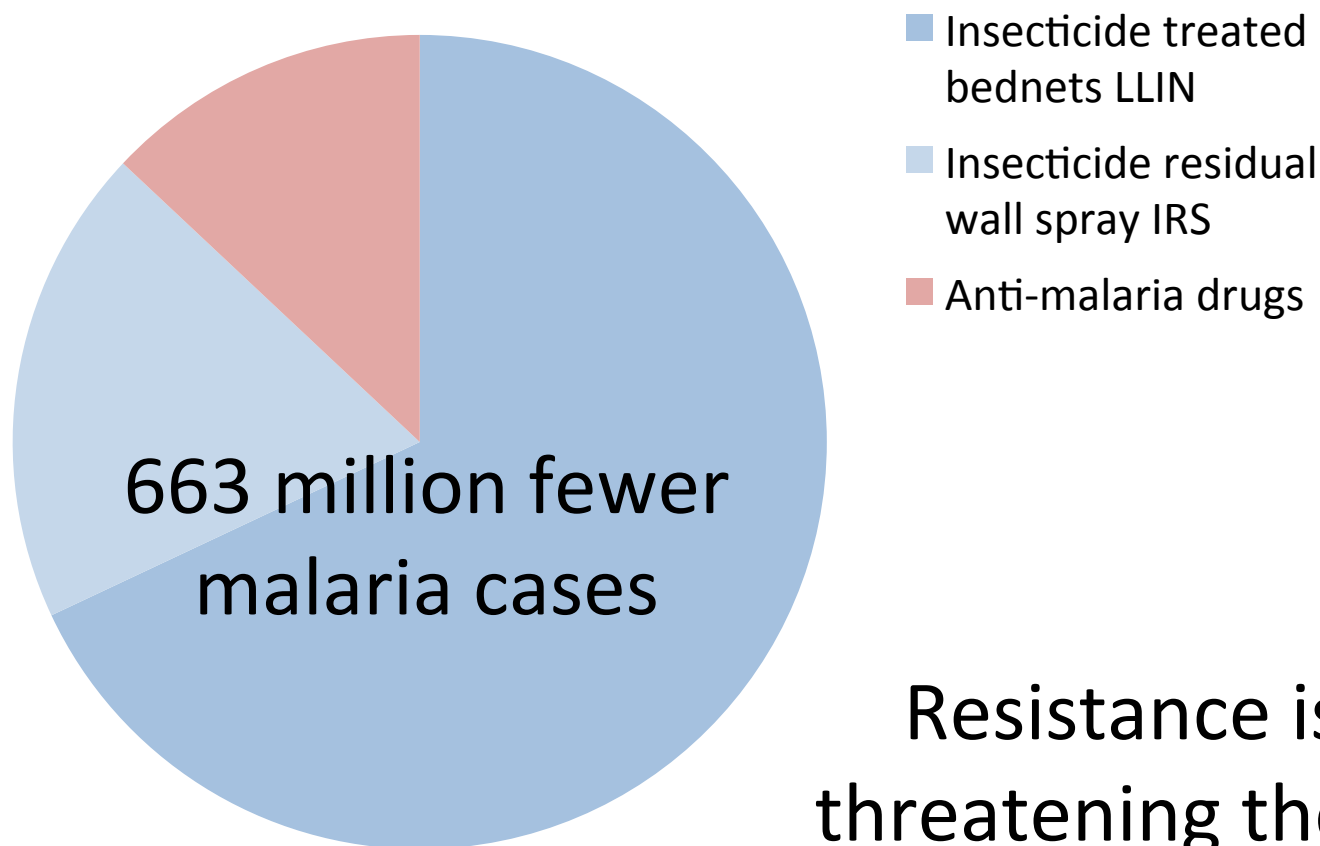
- “Classic” bottle assay, malaria mosquitoes exposed to a pyrethroid for 60 minutes, removed and assessed for mortality at 24 hours



Resistance status update

- Why does this matter?
 - Bhatt *et al*, 2015, estimate that since 2000 there has been a 40% reduction in clinical cases of malaria. That's 663 million fewer cases of malaria than there otherwise would have been
 - The majority of this reduction is a result of malaria vector control
 - And the majority of the vector control is with pyrethroids

Resistance status update



Activities

- Insecticide resistance is now seen as the biggest threat to malaria control, and other mosquito vectored diseases, e.g. dengue and Zika
- The IRAC PH team and its members are involved with a number of initiatives with third parties and aim to provide a consistent and coordinated “industry” voice

Activities

- Initiatives and groups IRAC PH team members are involved with include:
 - WHO
 - RBM Vector Control Work Group
 - Crop Life VC Team
 - Innovation 2 Impact
 - Working party to update WHO test procedures for monitoring insecticide resistance
 - Academic institutes
 - Etc.

Challenges

- **External**
 - Where to start...
 - Ask a PH team member in the bar
- **Internal**
 - With many IR initiatives on going it is difficult to get everyone together for IRAC specific activities
 - Focus of team is on VC, which takes energy away from other PH/hygiene pests
 - In large non-VC PH markets, users, regulators, and even industry, looks to academics for IRM guidance

Looking forward

- Must be pragmatic, “go with the energy”
- There is much change in the VC world, and hopefully new insecticidal tools will become available
- IRAC should ensure best practice IRM is widely promoted:
 - Lobbying
 - Education
 - Supporting research
 - Supporting appropriate initiatives

With thanks to the IRAC PH team

