Updates from the Global Malaria Programme

Vector control and Insecticide Resistance Unit

Seth Irish

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Aims of Vector Control and Insecticide Resistance Unit

- Support optimal resource use for malaria vector control by WHO Member States and by their implementing partners
  - To support generation and reporting of data related to malaria vectors and interventions
  - To develop or revise evidence-based WHO recommendations and programmatic guidance on vector surveillance and control, including for new tools
  - To support timely dissemination of vector surveillance and control guidance and contribute to its implementation through technical support and capacity building activities based on identified priorities

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Activities in the last year

Plans for the coming year

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Activities in the last year

Insecticide resistance and other threats

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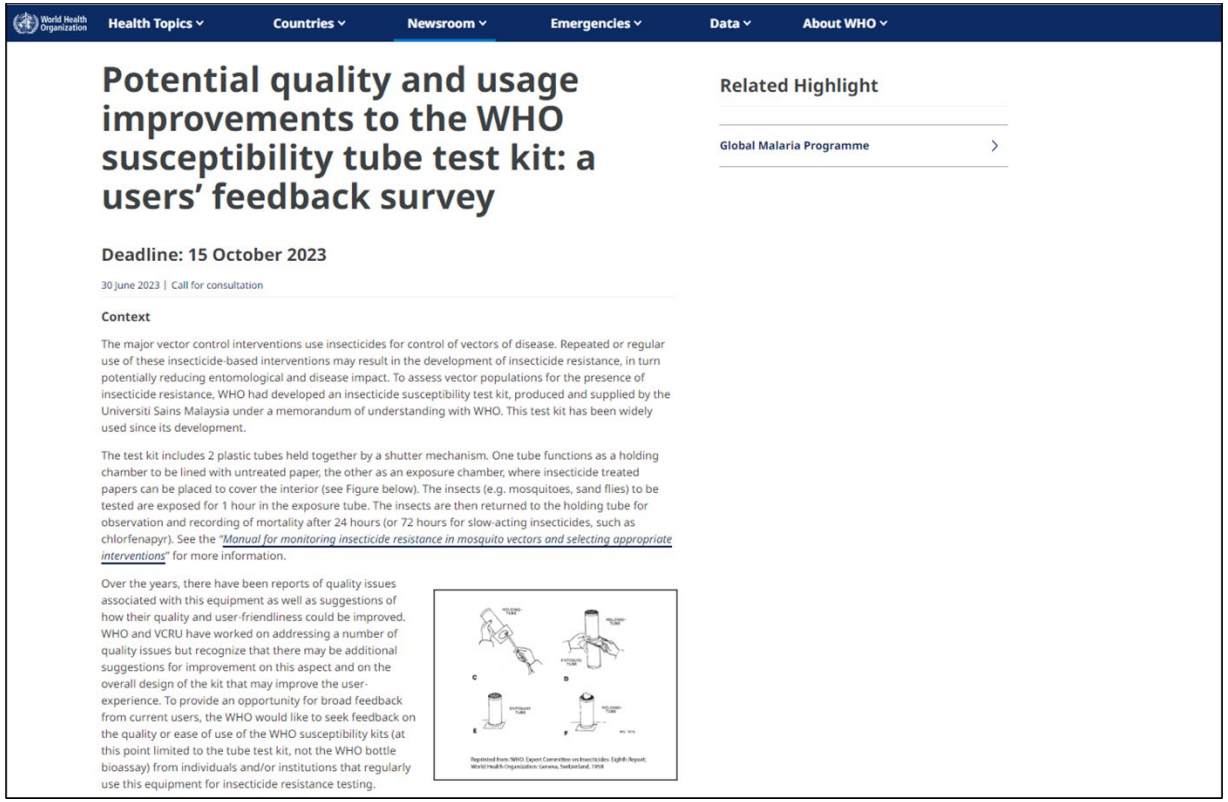
Survey on tube tests

- Online survey in 2023 (30 June to 15 October) to get feedback on WHO susceptibility tube test kit



- **Plastic** – costs of alternative plastics to be investigated
- **Glue** – replaced with acoustic transducer glue in 2019
- **Mesh screen** – finer to prevent escape of sandflies, must also be durable
- **Spring clips** – number to be increased

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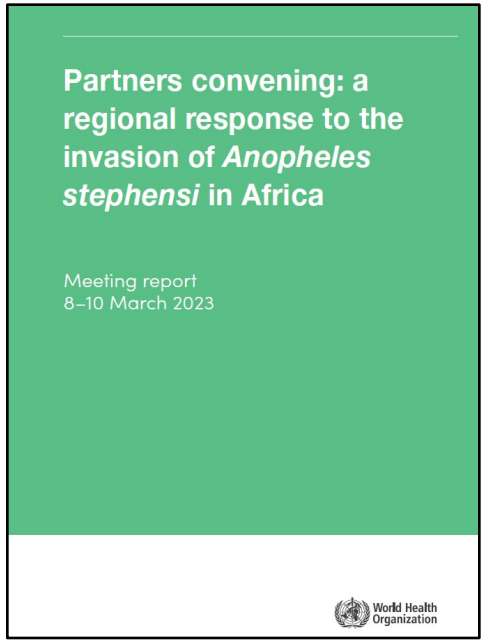
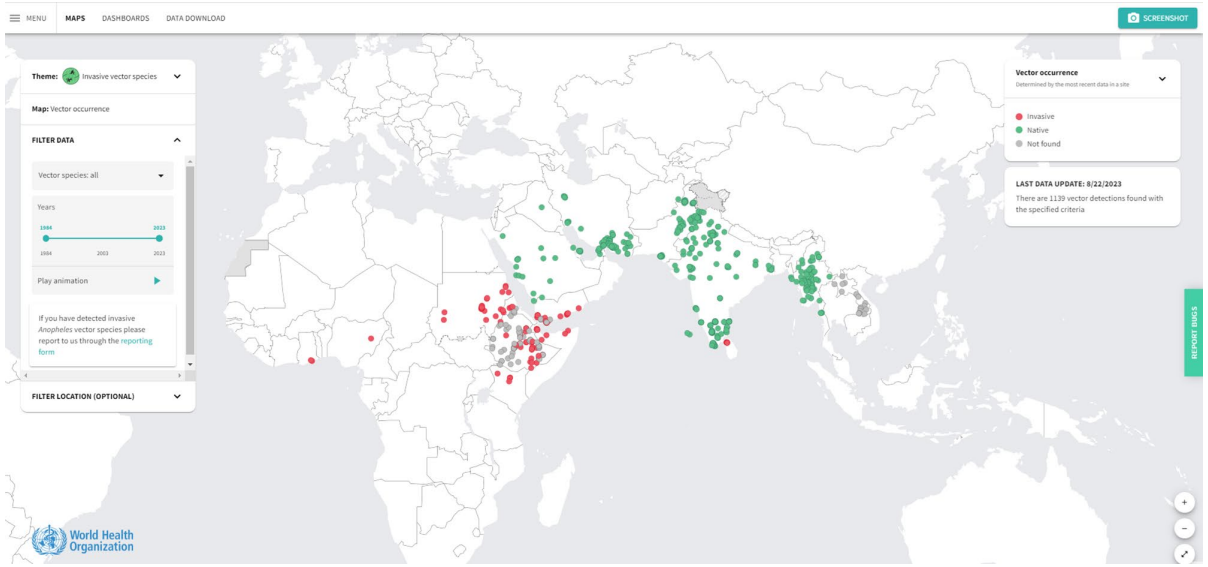
An. stephensi in Africa

- Partnership convening: A regional response to the invasion of *An. stephensi* in Africa, 8-10 March, Addis Ababa
- Quarterly calls: irishs@who.int
- Malaria Threats Map
- Surveillance and control of *Anopheles stephensi*: Country experiences





https://apps.who.int/malaria/maps/threats/

https://www.who.int/publications/i/item/9789240075535

Guidance and guidelines

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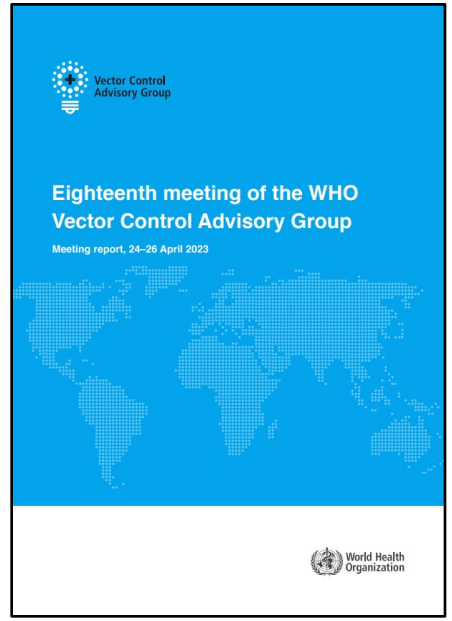
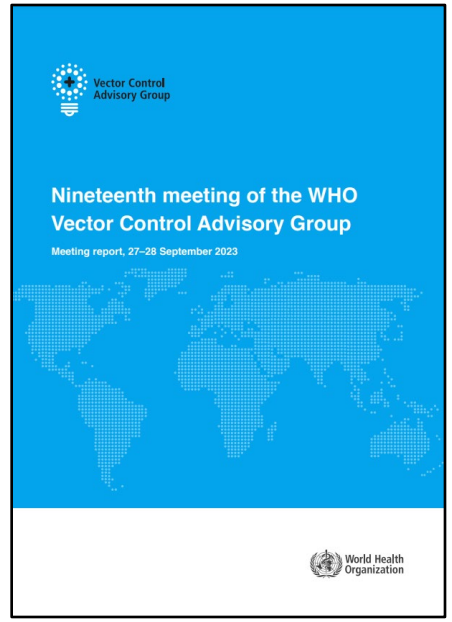
Vector Control Advisory Group

- 18th meeting (24-26 April 2023)
- 19th meeting (27-28 September 2023)
- 20th meeting (25-28 March 2024)

- topical repellents
- eave tubes
- sterilization of male mosquitoes
- systemic endectocide treatment for Lyme disease
- bait stations
- spatial repellents
- systemic endectocide treatment
- reduction of pathogen transmission induced by *Wolbachia*





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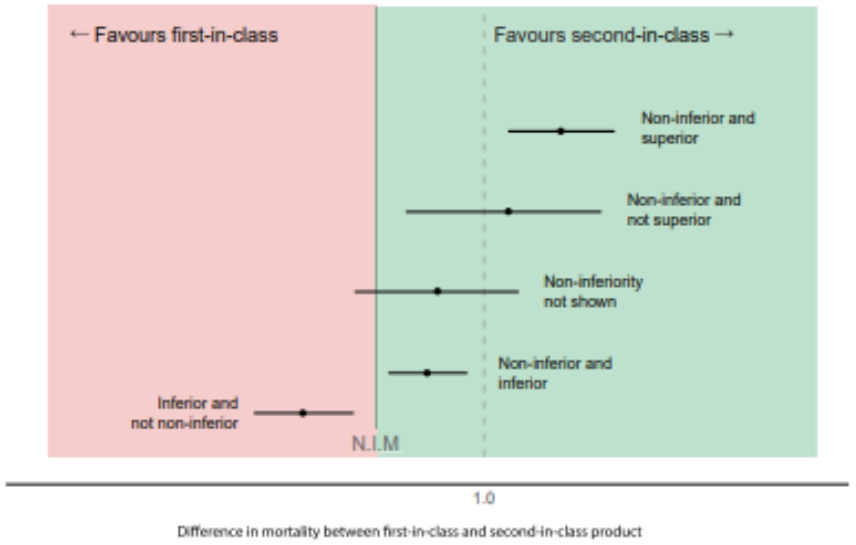
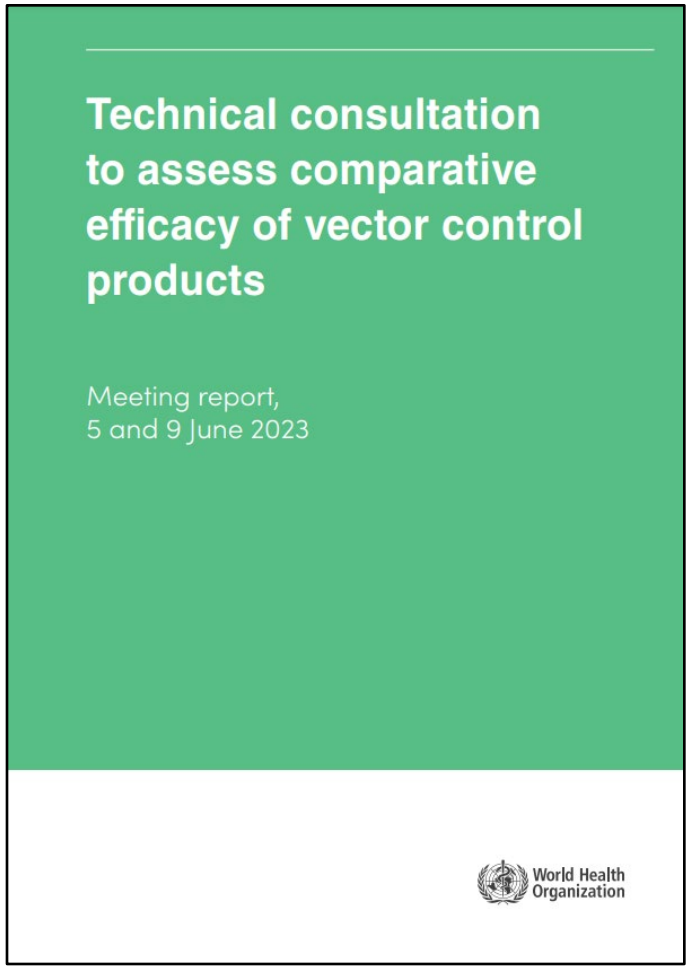
https://www.who.int/publications/i/item/9789240077300
https://www.who.int/publications/i/item/9789240087699

Comparative efficacy

- Consultation to evaluate the non-inferiority of 4 products (3 ITN, 1 IRS) and further develop methods of comparative efficacy testing
- Protocol to be published in April
- Norms, standards and processes underpinning development of WHO recommendations on vector control being updated

Fig 1. Schematic figure depicting the various outcomes of comparative efficacy assessments for mortality





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https://www.who.int/publications/i/item/9789240078659

Guidelines

- Update 16 October 2023

Strong recommendation for, Moderate certainty evidence

Pyrethroid-chlorfenapyr ITNs vs pyrethroid-only LLINs (2023)

Pyrethroid-chlorfenapyr ITNs should be deployed instead of pyrethroid-only LLINs for prevention of malaria in adults and children in areas with pyrethroid resistance.

Conditional recommendation for, Moderate certainty evidence

Pyrethroid-chlorfenapyr ITNs vs pyrethroid-PBO ITNs (2023)

Pyrethroid-chlorfenapyr ITNs can be deployed instead of pyrethroid-PBO ITNs for prevention of malaria in adults and children in areas with pyrethroid resistance.

Conditional recommendation for, Moderate certainty evidence

Pyrethroid-pyriproxyfen ITNs vs pyrethroid-only LLINs (2023)

Pyrethroid-pyriproxyfen ITNs can be deployed instead of pyrethroid-only LLINs for prevention of malaria in adults and children in areas with pyrethroid resistance.

Conditional recommendation against, Moderate certainty evidence

Pyrethroid-pyriproxyfen ITNs vs pyrethroid-PBO ITNs (2023)

Pyrethroid-pyriproxyfen ITNs are not recommended for deployment over pyrethroid-PBO ITNs for prevention of malaria in adults and children in areas with pyrethroid resistance.

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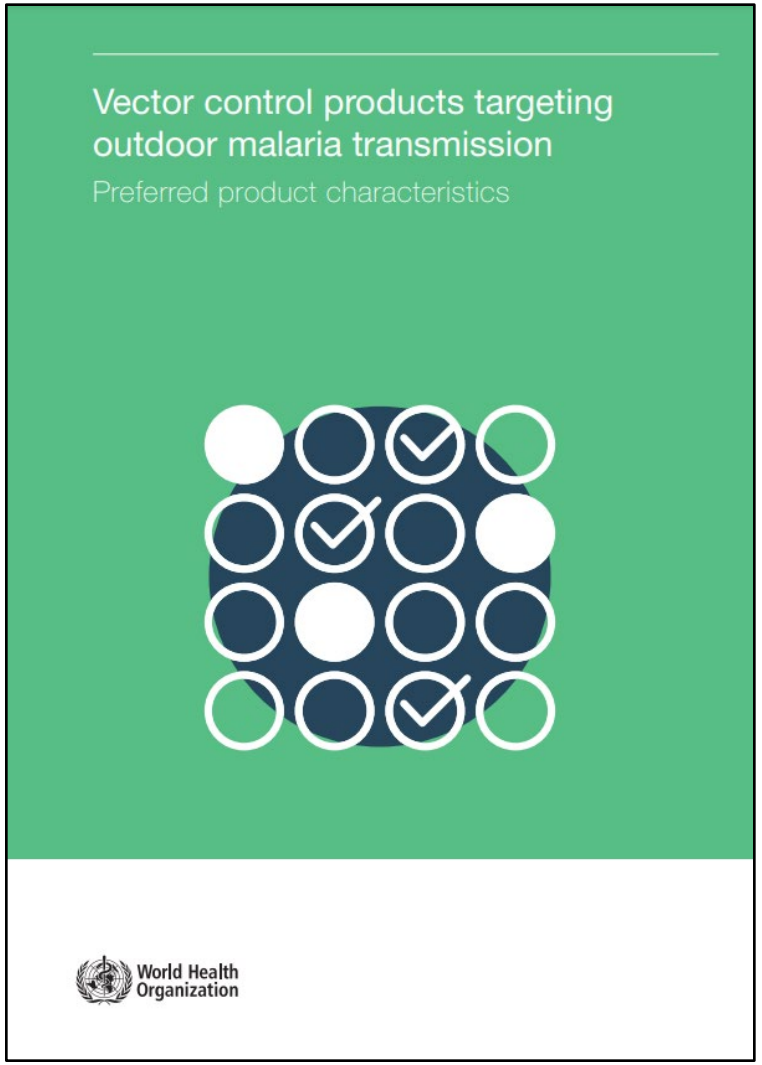
Preferred product characteristics

- 4 April 2023 Vector control products targeting outdoor malaria transmission
  - Indications
  - Potential use cases
  - Target populations
  - Efficacy (epidemiological/entomological)
  - Access and affordability
  - Feasibility
  - Regulatory
  - Product quality
  - End user suitability



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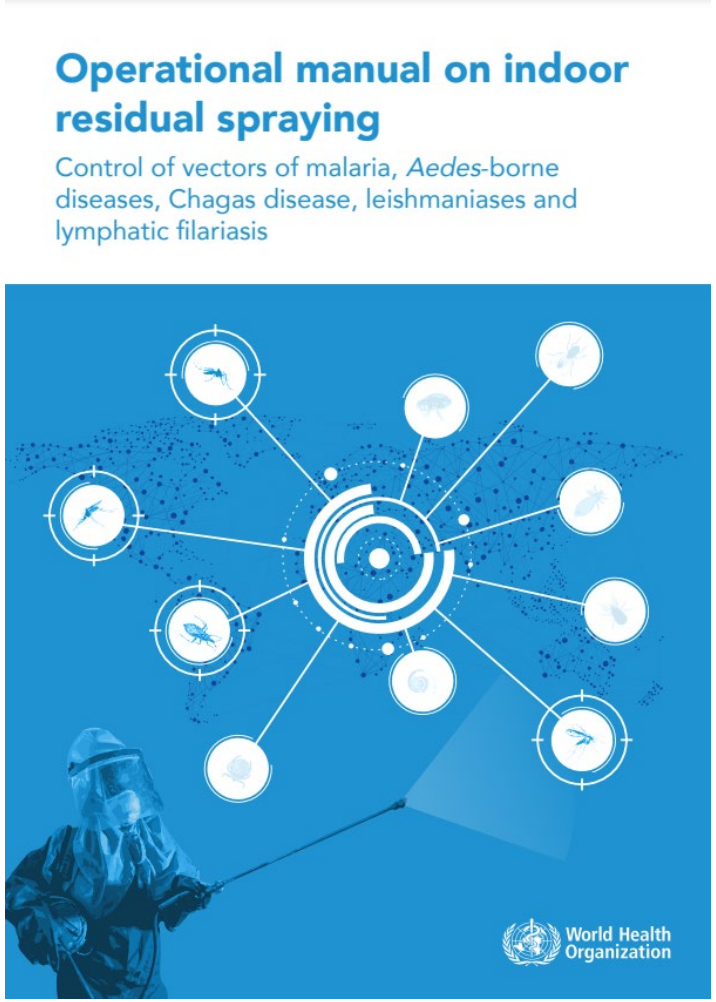
Operational manual on indoor residual spraying

- 13 February 2024



- Expanded to provide guidance on IRS for other vector borne diseases
- Four sections
  - Concepts of IRS
  - Requirements of an IRS programme
  - Operational aspects
  - Monitoring and evaluation

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https://www.who.int/publications/i/item/9789240083998

Examples of regional offices providing support

- PAHO
  - Developing guidance on operational LLIN monitoring
  - Urban malaria on the agenda
- EMRO
  - Training of trainers in morphological identification (Oman)
- AFRO
  - Supported countries on VCNAs, monitoring resistance
  - African Network for Vector Resistance
  - AFRO II project funding completed

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Plans for the coming year

Plans for coming year

- Insecticide resistance and other threats
  - Multi-centre study to define discriminating doses of broflanilide and isocycloseram
  - Quarterly calls for *An. stephensi* updates
  - Technical consultation to learn from experience in testing new compounds over the past few years
  - Cost of goods analysis on insecticide treated test papers and kits
- Guidance and guidelines
  - Comprehensive update of LSM manual
  - Systematic reviews on spatial repellents and ATSBs
  - VCAG meetings
  - Update of Norms, standards and processes underpinning development of WHO recommendations on vector control
  - Evolution and expansion of MINT tool

Change of unit head

Jan Kolaczinski leaving GMP after 7 years of service

Daniel Ngamije to serve as acting Unit head until the position is filled

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If we can be of service, please be in touch

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Thank you

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Thank you

For more information, please contact:
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