Guidelines for malaria vector control

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After an unprecedented period of success in global malaria control, progress has stalled

- 219 million malaria cases and 435,000 deaths in 2017
- No significant gains seen in reducing the global malaria burden over the period 2015-2017

Access to core malaria vector control tools in sub-Saharan Africa, the region that carries the brunt of the disease, remains low

- Only (50%) coverage of insecticide-treated nets in 2017. Coverage has improved only marginally since 2015 and has been at a standstill since 2016.
- Globally, protection by indoor residual spraying declined from a peak of 5% in 2010 to 3% in 2017, with decreases seen across all WHO regions
Background and context

• Malaria control requires an integrated approach, including prevention, early diagnosis and prompt effective treatment

• Vector control is a major component of malaria prevention
  • Each country should develop and implement evidence-based national malaria vector control policies and strategies tailored to its specific malaria context(s)
• The *Guidelines for malaria vector control* consolidate the substantive yet fragmented volume of available guidance on malaria vector control in a single document.
  
  • The guidelines provide a “one-stop shop” for all those involved in the research, development or implementation of malaria vector control interventions.

• The guidelines are designed to inform technical decisions by countries and partners on the selection and implementation of the most appropriate vector control tools for their specific malaria landscape(s).
• The guidelines are also designed to:
  • create greater transparency on the process that should be followed to generate the necessary evidence base for new and revised WHO recommendations
  • help identify where there are evidence gaps and inform the research agenda for the ongoing development of the guidelines
The new *Guidelines for malaria vector control*

4 categories of intervention:

- **Core interventions** in malaria vector control have demonstrated public health value and are broadly applicable for populations at risk of malaria in most settings.

- **Supplementary interventions** are applicable for specific populations, situations or settings and, as such, are not broadly applicable.

- **Personal protection measures** have a primary function of protecting individual users, although they may not have demonstrated public health value.

- **Other interventions** with potential public health value.
The new *Guidelines for malaria vector control*

• consolidate more than 20 sets of recommendations and good practice statements in one document
  • recommendations are generally based on a systematic review of evidence generated by randomized control trials and other studies
  • good practice statements are based on expert opinion and field experience
  • taken together, these elements outline both the ‘what to do’ and the ‘how to do it’ of malaria vector control
The new *Guidelines for malaria vector control*

- are intended as a “living document”
  - ongoing feedback will be sought and welcomed from the global community of practice to improve and inform updated versions
  - a dedicated email address to which feedback can be directed has been established: vcguidelines@who.int
Do the guidelines contain new recommendations?

• These guidelines are largely a consolidation of existing recommendations. Bringing them together in one publication clarifies:
  • key messages in vector control
  • how the recommendations link together

• Recommendations will be updated or added to the guidelines as new evidence is reviewed
The new *Guidelines for malaria vector control*

Do the guidelines contain new recommendations?

- As part of the guidelines development process, the Cochrane Infectious Disease Group conducted new systematic reviews and updated existing ones.
- This provided the foundation for a clearer set of recommendations.
  - Example: the new guidelines make clear that space spraying of insecticides should not be undertaken for malaria vector control.
Malaria vector control

• Priority to be given to delivering either insecticide-treated nets (ITNs) OR indoor residual spraying (IRS) at high coverage and to a high standard

• Conditional recommendation against combining these two core interventions to reduce morbidity and mortality

1: Indicative text only – for full recommendations, see Guidelines
Core interventions

• Pyrethroid-only long-lasting insecticidal nets (LLINs) prequalified by WHO recommended for use as a core intervention in all malaria-endemic settings

• Pyrethroid piperonyl butoxide (PBO) nets prequalified by WHO conditionally recommended for use instead of pyrethroid-only ITNs in certain circumstances

• IRS spraying using a WHO prequalified product recommended as a core intervention in all malaria-endemic settings\(^2\)

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1. Indicative text only – for full recommendations, see the *Guidelines for malaria vector control*

2. DDT continues to be recommended but is not prequalified
Supplementary interventions

• Larviciding recommended as a supplementary intervention in areas where high coverage with a core intervention has been achieved, where habitats of principal malaria vector(s) are few, fixed and findable, and where its application is both feasible and cost-effective.

1 Indicative text only – for full recommendations, see the Guidelines for malaria vector control.
Personal protection measures

• Deployment of topical repellents not recommended as an intervention with public health value, but may be beneficial for personal protection

• Use of insecticide-treated clothing not recommended as an intervention with public health value but may be beneficial to provide personal protection in specific population groups

¹. Indicative text only – for full recommendations, see the Guidelines for malaria vector control
Other interventions

- **Space spraying** should not be undertaken for malaria control, and IRS or use of ITNs should be prioritized instead.

- **Housing quality** is an important risk factor for malaria infection in sub-Saharan Africa. Specific evidence-based recommendations on housing and vector-borne diseases are still needed.

  - WHO is currently developing housing and health guidelines; to contribute to the guidelines, the Global Malaria Programme has commissioned a systematic review of housing and vector-borne diseases

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1. Indicative text only – for full recommendations, see the *Guidelines for malaria vector control*
Good practice statements

On the following topics

• Universal coverage using ITNs or IRS
• Co-deployment of core interventions
• Use of supplementary interventions
• Maintenance of vector control in areas with local malaria transmission
• Assessment on scale-back of vector control in areas where transmission has been interrupted
• Use and disposal of ITNs

1. Indicative text only – for good practice statements in full, see the Guidelines for malaria vector control
Questions?