

Guidelines for malaria vector control

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**World Health
Organization**



- 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



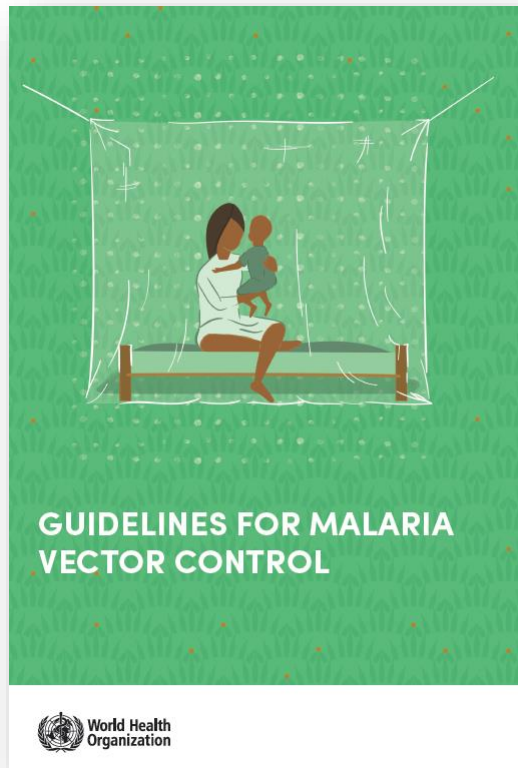
- Malaria control requires an integrated approach, including prevention, early diagnosis and prompt effective treatment
- Vector control is a major component of malaria prevention
 - Each country should develop and implement evidence-based national malaria vector control policies and strategies tailored 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



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



- 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



- 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



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 settings²

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

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



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?