

Publication

A research agenda for malaria eradication : vector control

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Different challenges are presented by the variety of malaria transmission environments present in the world today. In each setting, improved control for reduction of morbidity is a necessary first step towards the long-range goal of malaria eradication and a priority for regions where the disease burden is high. For many geographic areas where transmission rates are low to moderate, sustained and well-managed application of currently available tools may be sufficient to achieve local elimination. The research needs for these areas will be to sustain and perhaps improve the effectiveness of currently available tools. For other low-to-moderate transmission regions, notably areas where the vectors exhibit behaviours such as outdoor feeding and resting that are not well targeted by current strategies, new interventions that target predictable features of the biology/ecologies of the local vectors will be required. To achieve elimination in areas where high levels of transmission are sustained by very efficient vector species, radically new interventions that significantly reduce the vectorial capacity of wild populations will be needed. Ideally, such interventions should be implemented with a one-time application with a long-lasting impact, such as genetic modification of the vectorial capacity of the wild vector population

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