

Programmatic Area	Categories	No.	Priority OR Activities
Prevention	ITNs/IRS/Innovative Vector Control	1	Use field trials, modeling and economic assessment to investigate combinations of “continuous” distribution approaches with the goal of identifying optimal combination of strategies for maintaining equitable LLIN coverage as well as efficient methods for scale-up to regional/national levels; possible channels for delivery should include ANC and EPI clinics, commercial sector, social marketing, schools, health days, community-based workers and others
		2	Measure how best to achieve and maintain LLIN ownership and use, particularly in groups with poor access to LLINs and in those areas or among groups (e.g. migrant/mobile populations in GMS, school-age children) with widespread underutilization. Given recent analysis of data from numerous national population-based surveys, the primary focus in most areas should be on addressing inadequate access/ownership
		3	Continue and expand field studies on physical integrity and durability of LLINs and refine the definition of a failed net; identify laboratory tests and other accelerated testing methodology, such as Resistance to Damage scores, that are strongly predictive of field durability
		4	Evaluate combination nets (i.e. insecticide-synergist nets or dual insecticide nets)
		5	Measure the effectiveness and cost-effectiveness of targeting hot spots for IRS (geographically and based on population) with or without optimizing ITN coverage, specifically in lower transmission areas where hot spots can be clearly defined
		6	Evaluate how to sustain gains achieved through IRS when transitioning IRS out of an area (e.g., high LLIN coverage & use, MDA, etc.).
		7	Evaluate whether there is/is not added benefit (effectiveness) to using non-pyrethroid IRS and pyrethroid ITNs in the same area concurrently
		8	Evaluate strategies to reduce transmission from outdoor/early or late biting vectors. Outdoor biting could, but does not have to, include biting those sleeping outdoors. Specifically, test in combination or separately once a sufficient evidence base is demonstrated: a.) attractive targeted sugar baits b.) spatial repellents c.) treated clothing d) treated hammocks e) environmental management f) other new, emerging strategies as appropriate
		9	Evaluate non-pyrethroid insecticide-treated durable wall liners; if proven to be effective identify the operational issues for scale up.
		10	Develop approaches to improve overall entomology sampling methods, including sampling of the outdoor biting population
		11	Test methods of more readily determining the residual insecticide content on nets and walls, including methods for new classes of active ingredients for use with IRS and next generation ITNs
		12	Identify methods and/or tools to facilitate a streamlined and cost-effective distribution system for targeting specific commodities (e.g. insecticide resistant-designated ITNs; newly adopted vector control tools) to different segments of the population.
	Insecticide Resistance	13	Conduct field evaluations of new insecticides and other strategies to mitigate or delay the spread of insecticide resistance
		14	Conduct laboratory, experimental hut and field evaluations of potential new insecticides or formats for malaria vector control once evidence base/potential is demonstrated (including eave tubes, etc.)
		15	Determine the effect of insecticide resistance on efficacy of vector control interventions

		16	Determine how best to monitor the effectiveness of insecticides, specifically in relation to resistance intensity and the "older" mosquito population
		17	Investigate the causes of variation in residual efficacy
Prevention, <i>con't</i>	Transmission Reduction	18	Evaluate new interventions or strategies for reducing malaria in areas with persistently high malaria burden despite efforts to scale up proven interventions
		19	Evaluate different approaches for identifying and targeting "hot spots" for vector control and active case detection/treatment in areas with moderate, seasonal or low transmission. Determine whether these hotspots are generated by differences in human-mosquito contact, or treatment or prevention activities
		20	Measure the impact of case management with ACTs on transmission reduction
	Chemoprevention of Malaria in Children and Malaria Vaccine	21	Evaluate the effectiveness of seasonal malaria chemoprevention where recommended by WHO
Case Management		24	Evaluate and improve clinician adherence to diagnostic testing and treatment including pregnancy assessment where applicable; specifically, identify factors associated with clinicians' non-adherence with diagnostic testing and test methods to increase provider adherence at health facility and community level
		25	Evaluate and improve referral for severe disease/danger signs: a.) Assess the ability of clinicians/health workers at outpatient departments, peripheral health facilities, and in the community to identify severe febrile illness, provide appropriate pre-referral management, and facilitate referral; implement strategies to improve as needed b.) Determine outcomes of children with severe febrile illness who do not complete referral, and identify risk factors for better/poorer outcomes
		26	Evaluate and improve provider practices in the private retail sector: a.) Test methods to scale-up quality-assured diagnostic testing and appropriate, high-quality treatment in the retail private and public sector b.) Identify and test innovative methods and a minimum support package for monitoring the quality and accuracy of malaria diagnosis and treatment in the retail private sector
		27	Identify and test methods to improve patient adherence to updated malaria case management procedures (including adherence to diagnostic testing and to recommended treatments)
		28	Identify reasons for and test means to improve delayed or non-care seeking by caretakers of children with fever within 24 hours in countries where DHS/MIS or other data indicate that prompt care seeking is low
		29	Assess the utility and feasibility of applying new tools for QA/QC of malaria diagnostics
Malaria in Pregnancy		30	Determine the population effectiveness of IPTp at varying levels of transmission and SP resistance; can thresholds at which IPTp is not justified be identified?
		31	Test the effectiveness of new strategies for prevention of MIP, including new drugs for IPTp and community delivery of IPTp
		32	Evaluate the impact of SP drug resistance on IPTp efficacy and birth outcomes
		33	Develop and assess methods for improving ANC attendance and ANC service provider practices including provision of IPTp, assess methods to improve integration of MIP interventions into MCH programs

Elimination and Epidemic Malaria	Elimination	34	In areas approaching elimination, determine the best and most cost-effective vector control measures to address residual foci of transmission.
		35	In areas approaching elimination, test the effectiveness and feasibility of new and existing tools to control outdoor malaria transmission. (Tools to be tested would already have existing evidence of efficacy against outdoor biting).
		36	Evaluate the utility and scalability of more sensitive diagnostic tools (e.g. highly-sensitive RDTs, PCR, etc) in an elimination context, including their utility for reactive or proactive case detection.
		37	Evaluate the effectiveness and feasibility of drug-based approaches (e.g. MDA, tMDA) to eliminate malaria, particularly in residual foci where full-scale of control interventions has been achieved.
	Epidemic Malaria	38	Test innovative SBCC approaches to effectively promote appropriate malaria prevention and treatment-seeking behaviors in difficult to reach, high-risk populations (e.g. mobile and migrant workers) or to promote continued adherence to those interventions in populations where malaria transmission has significantly decreased or has been interrupted.
		39	Conduct a pilot evaluation of focused screen and treat and mass screen and treat interventions in response to early epidemic reporting signals in low transmission settings
		40	Determine appropriate/cost effective methods to identify epidemics
Health Systems		41	Evaluate use of continuous surveys to provide information for health system quality improvement (e.g. remedy drug stock outs, improve health worker performance, and measure other indicators related to program impact and effectiveness)
		42	Investigate how best to increase health worker retention, such as through pay for performance schemes
		43	Evaluate cost-effective and sustainable approaches for improving supply chain for drugs, diagnostics, and supplies, such as an SMS for Health program
		44	Conduct economic and cost-effectiveness studies on integrating delivery of malaria control interventions with mass drug administration for neglected tropical diseases
Behavior Change and Communication		45	Evaluate effectiveness of SBCC interventions addressing different behavioral factors (e.g., self-efficacy, risk perception, social norms) for key malaria behaviors (e.g., patient initiation of services, health worker adherence to guidelines) to inform design of future SBCC interventions.
		46	Demonstrate a dose-response relationship between an SBCC intervention targeting either patients or health care providers and key malaria behaviors for malaria in pregnancy and/or case management (e.g. patient initiation of services, health worker adherence to guidelines) to improve quality and cost-effectiveness of SBCC interventions.
		47	Evaluate the cost-effectiveness of existing and new social and behavior change intervention and channels (e.g., interpersonal communication, mass media, mobile technology) for key malaria prevention and case management behaviors.
		48	Explore the most effective communication channels, approaches, and interventions to improve community awareness of falsified or counterfeit antimalarials.
		49	Identify SBCC interventions for increasing and maintaining key malaria prevention and case management behaviors in pre-elimination settings.

Monitoring and Evaluation	Measurement	50	Compare and determine the most effective, sustainable, moderately costed method to monitor malaria burden and trends in different populations and settings and transmission levels (school-based surveys, cross-sectional surveys including serosurveys, sentinel surveillance sites, health facility surveillance, etc.)
		51	Identification of 'thresholds' (or ranges) that would help countries identify the need to 'shift' the focus of their burden measurement: i.e. the threshold when a country moves from monitoring burden through survey-based parasitemia markers, to facility-based surveillance; the threshold to move from facility-based surveillance to community-based or active surveillance methods; the burden threshold (range) for which conducting an impact evaluation using the current plausibility argument no longer fits; the coverage threshold at which impact could be expected (e.g. coverage levels, duration of time at this coverage, etc.)
		52	Evaluate the accuracy of data on malaria service delivery indicators collected in household surveys
	Impact of Malaria Control	53	Conduct studies to show the economic impact of malaria control
		54	Conduct observational studies of the impact of malaria prevention interventions on other vector-borne illnesses and neglected tropical diseases