I. Purpose

The malaria program performance review (MPR) is a periodic joint program management process for reviewing progress and performance of country programs within the national health and development agenda with the aim of improving performance and/or redefining strategic direction and focus. This aide memoire summarizes the major findings and critical actions emerging from the MPR. The aide memoire is neither a memorandum of understanding nor a legal document. It is a re-statement of the joint commitment of partners, to work together towards the implementation and follow up of recommendations towards the achievement of the vision of a malaria free Kenya.

II. Background

In November 2008, Government of Kenya in collaboration with the Malaria Inter-agency Coordination Committee (MICC) and key partners decided to undertake an in-depth review of the national malaria control program. This decision was made in the context of the observed decline in malaria transmission and disease burden, variations in parasite prevalence across the country, improving coverage of interventions and the global drive to achieve universal coverage for populations at risk with malaria control interventions by 2010.

The objective of the review was to assess the current strategies and activities with a view of strengthening the malaria control program and health system used in delivery of malaria control services. The specific objectives of the MPR were:

- To review malaria epidemiology in Kenya
- To review the policies and programming framework within the context of the health system and the national development agenda
- To assess the progress towards achievement of the global Roll Back Malaria targets
- To review the current program service delivery systems, their performance and challenges
- To define the next steps for improvement of program performance

The review was organised in 2 phases. Phase 1 involved consultation of partners to agree on the need and scope of the review, development of implementation plan and resource mobilization. It also covered the desk reviews leading to the production of the thematic reports. Phase 2 involved central level consultations with senior management of both Ministries of Health and representatives of partner agencies and stakeholders, and field visits to provinces and districts to validate the findings of the desk thematic review.

III. Key findings and action points

1. Malaria Epidemiology

The emerging evidence from sentinel sites suggests declining malaria trends with possible epidemiological transition. The country is experiencing a decline in malaria transmission, variation in malaria parasite prevalence and reduction in the malaria burden as evidenced by reduction of malaria admission. Today the country is stratified into four malaria eco-epidemiological zones: endemic, seasonal transmission, epidemic-prone and low risk / malaria free zones. It is estimated that seventy percent of the population in Kenya is at risk of malaria. The
challenge of achieving a malaria free Kenya is to incrementally expand the malaria free areas within the country through focused and targeted scaled up actions in all epidemiological zones.

**Action points**
- Validation of the decline of malaria trends through routine surveillance, surveys and data quality audits
- Targeting of malaria control intervention packages by epidemiological zones
- Scale up the implementation of malaria control intervention packages to universal coverage of all populations at risk
- Monitor disease trends and regularly update the malaria epidemiological map based on evidence

2. **Malaria diagnosis and treatment**

In 2004, the country changed its 1st line treatment for uncomplicated malaria from sulfadoxine-pyrimethamine to an artemisinin based combination treatment (ACT) due to drug resistance. Since then, several guidelines on case management and pharmacovigilance have been developed and most of health workers have been trained. However, both the access to diagnostics and coverage of ACT for management of malaria is still low in the country. Health facilities also continue to experience frequent stock outs of ACT due to distribution bottlenecks.

**Action points**
- Address the bottlenecks associated with the procurement and distribution of malaria medicines and diagnostics
- Implement the policy of testing every case of fever to confirm malaria at all levels of health care
- Provide or enable free diagnosis of malaria using rapid diagnostic tests and microscopy at all levels of the health care system
- Scale up training of health workers in the private sector on diagnosis and case management
- Implement home management of malaria using ACT to increase access to prompt malaria treatment

3. **Prevention of malaria in pregnancy**

The Malaria control program has well defined malaria in pregnancy policy including: the provision of free Intermittent Preventive Treatment (IPTp) in malaria endemic areas, free insecticide treated nets (ITN) and prompt diagnosis and free treatment of clinical disease. This malaria control package is implemented as part of routine antenatal care. The current high antenatal care attendance in the country has however not resulted into high uptake of IPTp which currently stands at 25% for IPTp1 and 13% for IPTp2. Use of insecticide treated nets among pregnant women currently stands at 50%. Many factors including late presentation of pregnant women to the antenatal care, stock outs of sulphadoxine-pyrimethamine (SP) for preventive treatment and shortage of trained health workers.

**Action points**
- Implement the provision IPTp and ITN at community level to increase uptake among pregnant women
- Increase training and advocacy for health workers on the provision of IPT
- Streamline the procurement and distribution of SP

4. **Vector control**

The main interventions for vector control in Kenya are Insecticide Treated Nets (ITNs) and Indoor Residual Spraying (IRS). The ITN policy (2001 – 2010) targets children under-five years and pregnant women and have been distributed in all malarious districts in Kenya. As a result, 48% of households in Kenya own at least 1 ITN. Indoor residual spraying has been successfully implemented for epidemics prevention attaining operational coverage of 97% of the targeted structures protecting over 3.1 million people. A pilot project with indoor spraying
in a malaria endemic district has shown that IRS significantly reduces disease burden in endemic areas with high ITN coverage. Currently, malaria vectors are fully susceptible to all insecticides used for vector control in Kenya.

Action points
- Implement universal coverage with insecticide treated nets to all populations at risk of malaria
- Adopt and implement the use of indoor residual spraying for vector control in malaria endemic areas
- Build capacity at national and sub-national levels for entomological surveillance and insecticide resistance monitoring.

5. **Epidemic Preparedness and Response**
Highlands west of the Rift Valley, arid and semi-arid areas are prone to malaria epidemics. The program has been successful at epidemic prevention through indoor residual spraying and early detection through surveillance. Epidemic preparedness has been improved at district level through planning, training and pre-positioning of commodities to enable districts to respond to epidemics within two weeks of detection. The main challenges include the limited capacity to forecast epidemics and absence of guidelines for epidemic preparedness and response.

Action points
- In epidemic prone districts, continue IRS for the next two years and transition to epidemic preparedness and response.
- Continue capacity building for epidemic preparedness and response through training, adequate funding and provision of commodities for quick response.
- Strengthen capacity for routine surveillance and epidemic threshold monitoring

6. **Advocacy Communication and Social Mobilization**
Advocacy and communication has created demand for malaria control interventions and utilization of services. However, advocacy and communication activities for behavior change have not been intensive. The launch and roll out of the community strategy is an opportunity of effectively implementing community based advocacy and communication for behavior change. The major challenge has been the lack of a clear policy on the coordination of advocacy and communication activities at provincial and district level.

Action points
- Increase funding for the coordination and implementation of activities for advocacy and behavior change communication
- Strengthen the capacity of provincial administration to undertake community based malaria behavior change communication activities
- Standardize malaria advocacy and behavior change communication tools and enhance dissemination through community channels

7. **Policies, Strategies and Program Management**
Malaria control is a national priority. The Division of Malaria Control (DOMC) is strategically placed within the Ministry of Public Health and Sanitation. It has a well-established national coordinating body the Malaria Interagency Coordinating Committee (MICC) with malaria technical Working groups. The program also has a number of steady and long term partners who provide technical assistance and funding for malaria interventions. A new costed malaria strategic plan 2009-2017 is being developed to support the new vision of a malaria free Kenya.

The Division currently lacks adequate human resource capacity to fulfill its mandate. In addition, there are no designated malaria focal persons at provincial and district level to coordinate activities. It also lacks a programme
management unit responsible for planning, procurement and training, which hampers full implementation of malaria control activities. Budgetary allocation from Government of Kenya is inadequate to cover malaria control interventions. Overall, the policies and guidelines for Malaria control are fragmented. There is also inadequate infrastructure at central, provincial, district and facility levels. The distribution system for malaria commodities is weak leading to frequent stock outs of commodities particularly medicines.

Action points:
- Ministry of Public and Sanitation should develop one policy document for malaria control
- Appointment or designation of malaria control focal persons at provincial and district level to coordinate implementation activities
- Assurance of long term funding commitments by partners including the Government of Kenya in order to sustain the gains made in malaria control
- Appointment of human resource to support malaria program management including program planning officer, training officer, resource mobilization and partnerships coordinator and malaria commodities logistician
- Evaluation of the procurement and supplies management of malaria commodities with an aim of delinking procurement and warehousing from distribution to enhance efficiency.
- Standardize training curricula for pre-service and in-service training for health workers in collaboration with training institutions

8. Surveillance, Monitoring and Evaluation and Operations Research

The Division of Malaria Control together with partners has developed a comprehensive surveillance monitoring and evaluation plan that is in line with the national malaria strategic plan. The integration of malaria indicators into the Health Management Information System (HMIS) and Integrated Disease Surveillance and Response (IDSR) has strengthened routine data collection, use and dissemination. Operation research activities undertaken include: Quality Control of Diagnostics, post market surveillance on quality of malaria medicines in collaboration with the Pharmacy and Poisons Board (PPB), routine antimalarial drug efficacy monitoring, insecticide resistance monitoring in collaboration with Kenya Medical Research Institute and the Division of Vector Borne Diseases (DVBD) and entomological surveillance of malaria vectors. The main program challenges in operational research include lack of a prioritized research agenda and fora for dissemination of operational research findings.

Action points:
- Operationalize the Monitoring & Evaluation plan
- Operationalize and harmonize the various malaria data bases
- Expand capacity for monitoring and evaluation and produce regular quarterly and annual malaria reports
- Develop mechanisms for performance monitoring and mutual accountability by all partners in malaria control
- Redefine and prioritize the operational research agenda through operational research technical working group

IV. Conclusion

The Kenya Malaria program performance review provided important findings regarding the changing epidemiology of malaria, the policy and programming framework and progress and performance in the delivery of the key technical and supportive interventions. Implementation of the recommendations of the review will place Kenya firmly on the path to a malaria free future.
V. Commitment

We as the Ministry of Public Health and Sanitation and partners of the malaria control program in Kenya, commit ourselves to the implementation of the programme review actions points and the acceleration and scaling up of malaria control interventions for universal access and sustainable impact with the ultimate goal to eliminate the disease in the country.

Signed on behalf of the Government of Kenya and Partners:

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In Nairobi, Kenya on Friday 5th June 2009