I. Purpose
The malaria program review (MPR) is a periodic joint programme management process for reviewing progress and performance of country programmes with the aim of improving performance and refining or redefining the strategic direction and focus. This aide memoire summarizes the major findings and critical actions emerging from the Uganda MPR. The aide memoire is a re-statement of the joint commitment of the Ministry of Health and partners, to work together to follow up on the recommendations of the MPR and support implementation towards the long term goal of achieving a malaria-free Uganda. It is neither a memorandum of understanding nor a legal document. There is a detailed report of the MPR from which this aide memoire have been derived.

II. Background
The Ministry of Health, through the National Malaria Control Programme (NMCP), in collaboration with partners decided to undertake a comprehensive review of the progress and performance of the malaria programme for the period 2000 to 2010. This decision was made in the context of the development of a new national malaria policy and strategy as the current versions expired in 2010. The findings of this review will feed into the development of these documents, which guides the future drive towards achieving universal coverage and maintenance thereof.

The objective of the review was to assess the current strategies and activities with a view of strengthening the malaria control programme for sustaining the gains made and achieving further reductions in the malaria burden. The specific objectives of the MPR were to review the epidemiology of malaria in Uganda; to assess progress towards achievement of national, regional and global targets by intervention thematic areas and service delivery levels; to review the structure, organization, and management framework for malaria control within the health system and the national development agenda; and to define the next steps for sustaining and improving program performance.

The review was organized in 3 phases. Phase 1: consultation with partners to agree on the need and scope of the review, and develop a plan for the review; Phase 2: desk reviews with the production of the thematic reports; and Phase 3: with the support of an external review team, undertook consultations with senior management of the Ministry of Health, and representatives of partner agencies and stakeholders, including civil society. Field visits to district hospitals, health centres and communities were also undertaken to validate findings of the desk reviews.

III. Key findings and action points

1. Malaria epidemiology
Malaria is endemic in the entire country except a few areas of low transmission that are prone to epidemics. A Malaria Indicator Survey conducted in 2009 reported high prevalence of malaria
parasites in children <5 years of age ranging from 5% in Kampala to 63% in mid northern region, with a national average of 45%.

Reported malaria cases from outpatient department have increased over the years from 28% in 2001 to 45% in 2010. In the same period, there has been only a minimal increase in the proportion of parasitological testing for malaria, from 5% in 2001 to 24% in 2010 with an average positivity rate of 45%. Due to the non availability of inpatient malaria data, this review is unable to describe the impact of malaria control interventions on severe malaria and deaths.

**Action Points**

a) Update the national malaria risk map and continue routine nationwide malaria prevalence and intervention coverage surveys

b) Strengthen routine malaria surveillance (outpatient and inpatient)

2. **Malaria Programme Management, Policies and Strategies**

The malaria control policy and the strategic plan expired in 2010 and are due for review. The Government of Uganda (GoU) has increased direct funding for malaria control interventions, and has also attracted significant funding from the Global Fund, Presidents Malaria Initiative, DFID, and RBM Partnership Secretariat. However, these resources are still commensurate with the malaria disease burden, and are largely donor dependent. The NMCP has received consistent technical assistance from the World Health Organization and other technical partners to boost the malaria policy and implementation in Uganda. The GoU waived taxes and tariffs on ITNs, insecticides, spray equipment and malaria diagnostics. Following Presidential Directives, user fees in public health facilities were abolished to increase access to health services, and the Malaria Research Centre established.

A National RBM Partnership Forum was established and meets quarterly. However an aide memoire developed by this partnership forum is yet to be implemented. There is an active civil society network in Uganda. Zonal coordinators and district malaria focal positions were established to strengthen malaria implementation.

The positioning of the NMCP within the MoH organogram is low. The implication of this is a restricted decision space on policy, technical and resource allocation matters. It minimizes the mandate and authority of the programme to properly head and guide malaria policy and implementation activities, often times leading to uncoordinated efforts by stakeholders involved in malaria control.

The NMCP does not develop annual integrated work plans, making it difficult for the programme to effectively coordinate partners. The existing organogram for the NMCP is outdated. Team work within the programme is inadequate coupled with a lack of professionalism leads to multiple decision centres and a breakdown in leadership. In several instances, malaria staff spends a lot of time implementing partners’ work instead of their respective mandates in the programme. Malaria activities are mainly implemented by the central level even where the district are mandated and/or most appropriate for implementation, thus leading to resignation of responsibilities by the district levels.

**Action Points**

a) Update the national malaria policy, strategic plan and develop joint annual work plans

b) Elevate the NMCP to the level of a Department in the MoH where it is able to participate in key policy, technical and resource allocation decisions

c) NMCP should conduct joint annual review and planning meetings involving all malaria stakeholders including districts.

d) Revitalize the zonal and district coordination mechanism to facilitate a more decentralized approach to malaria control.
e) The Government of Uganda and partners should commit more resources to malaria activities.

3. Malaria Control Tools

A. Vector control
Vector control in Uganda combines the use of indoor residual spraying (IRS), long lasting insecticidal nets (LLINs) and on a limited scale, larval source management. With support from partners, IRS was reintroduced in 2006 and has been expanded to 10 districts protecting approximately 3 million people.

The NMCP started promoting ITNs as a major vector control tool in 1998 initially targeting pregnant women and children under 5 years of age and changed to universal access targets in 2009. In 2010, the program distributed more than 7.2 million LLINs. An additional 10 million LLINs is planned for distribution to achieve universal coverage by 2012.

Currently there is limited routine distribution of LLINs to pregnant women and children under 5 through the ANC and EPI services. In addition, IRS is implemented in 10 districts. In Uganda, IRS and LLINs still remains largely donor dependent. Infrastructure for effective and routine entomological monitoring on mosquito bionomics is inadequate. There are no policy guidelines for integrated vector management.

Action Points
a) Rapid scale-up of vector control activities of LLINs and indoor residual spraying to achieve universal coverage.

b) Strengthen the capacity of the Vector Control Division for malaria vector monitoring and surveillance by establishing and equipping a reference entomological laboratory.

c) Establish representative sentinel sites to monitor vector bionomics including insecticide resistance

B. Malaria Case Management
Malaria case management policy evolved from chloroquine (CQ) monotherapy to CQ+SP to ACTs in the last decade. Similarly, the policy on the diagnosis of malaria has changed from clinical to parasitological based diagnosis. Home based management of fever (HBMF) introduced in 2002 has now been incorporated into Integrated Community Case Management (ICCM). Uganda is one of the countries in the phase 1 of AMFM.

However, there are frequent stock-outs of antimalarial medicines and supplies at health facilities and community level. Although the NMCP has conducted trainings of health workers in 21 districts on the use of RDTs, its implementation is hampered by non availability of RDTs. Integrating private sector providers into national case management programme remains a challenge. In addition, there are weak services for management of severe malaria below HCIV level.

Action Points
a) Support rapid scale up of case management (diagnostics and medicines) including at the community and private sector levels.

b) Use consumption data to strengthen quantification of malaria commodities.

c) Review the policy guide on the management of severe malaria below HCIV level and improve the referral system

C. Malaria in Pregnancy
In 2001, NMCP commenced the implementation of Intermittent Preventive Treatment in pregnancy (IPTp) as a strategy which was earlier adopted in 1998. Routine distribution of ITNs through ANC remains limited. Poor coordination between the Reproductive Health Division and NMCP has hampered progress in the implementation of malaria in pregnancy activities. Stock outs, and/or the
non-stocking of SP in ANC services even when available in health facilities has also hindered the implementation of IPT.

**Action Points**

a) RH should take a key leadership role in MiP with NMCP providing technical support.
b) Revitalize the RBM partnership MiP subcommittee.
c) Ensure the availability of malaria in pregnancy commodities and strengthen health referral systems
d) Scale up routine ITN distribution to all pregnant women through the ANC services

**D. Epidemic preparedness and response**

Since 2000, six epidemics have occurred in Uganda with the most recent epidemic in 2009/10 in Mubende District. The NMCP has established a malaria surveillance system using weekly data generated from all health facilities. Epidemic thresholds have been developed in epidemic prone districts and health workers were trained in the use of these thresholds. Uganda has established two centres of excellence in early detection of epidemics. However, there are no malaria EPR guidelines and plans. The current malaria epidemic threshold values are based on the clinical diagnosis of malaria. There is the need to review and update these thresholds to take into account the introduction of malaria diagnostics.

**Action Points**

a) Develop an EPR plan
b) Finalize the approval of the EPR guidelines and training modules
c) Revise malaria epidemic thresholds

**E. Procurement and Supply Management**

All antimalarial medicines and laboratory commodities in the policy are listed on the Essential Medicines List of Uganda and are available through the NMS, JMS and the private sector. ACTs and SP are part of the tracer medicines for monitoring the Annual Health Sector Performance. The Public Procurement and Disposal of Public Assets (PPDA) act is currently being revised to address delays in medicines procurement.

However, the availability of malaria commodities at service delivery points remains a problem largely due to poor coordination and collaboration between the NMCP, Pharmacy Division (PD), Procurement Unit (PU) and NMS. There is lack of up-to-date data on the country malaria burden to guide forecasting and quantification. Supply of CQ to health facilities leads to use of chloroquine for malaria treatment which is against the current recommendation of using ACTs for the treatment of malaria.

**Action points**

a) Improve and maintain communication / collaboration between NMCP, PD, PU and NMS on PSM issues
b) Strengthen quantification of malaria commodities.
c) NMS procurement of malaria commodities should be guided by the Ministry of Health policies
d) Routine distribution of CQ to health facilities should be stopped and a mechanism set up to withdraw the current large stocks of CQ in health facilities.

**F. Advocacy Communication and Social Mobilization**

The NMCP has a focal point person, malaria communication strategy and guidelines for advocacy and social mobilization implementation. There is a functional advocacy and social mobilization working group at national level. The NMCP had a malaria newsletter and notice board which are no longer functional. There is a Parliamentary malaria subcommittee of the Social Services Committee. Uganda
commemorates the Africa Malaria Day/World Malaria Day annually with high level political participation.

However, inadequate erratic funding and staffing still hampers BCC implementation. IEC material developed is sometimes not focused and is seldom in local languages. Operational research to guide IEC/BCC interventions is lacking. IEC/BCC activities are implemented on an ad hoc basis which weakens the impact of social mobilization interventions.

**Action points**

a) Mobilise the parliamentary malaria sub-committee of the Social Services Committee to continually raise the profile of malaria.

b) Formulate outcome BCC indicators to monitor BCC activities

c) Conduct KABP studies

d) Revitalize the newsletter and notice board, document best practices and regularly update the MOH website.

**G. Surveillance, Monitoring and Evaluation and Operations Research**

The NMCP over the last ten years has implemented two Malaria Strategic Plans (MSP) 2000/1 – 2004/5 and 2005/6 - 2009/10. There has been increased support from partners in strengthening capacities for M&E within NMCP. In 2008, the NMCP developed the first ever M&E plan. In addition, a National Malaria Research Centre was created in 2004. The first Malaria Indicator Survey was conducted in 2009.

Malaria data remains inadequate, untimely and incomplete due to the weaknesses that exist in the HMIS system. Data on in-patient malaria admissions and deaths is not being systematically collected. No system exists for collecting and integrating data from the private sector, which provides services to more than 50% of the population into the HMIS. There is no functional malaria database within the NMCP. A clear research agenda to guide programmatic implementation has not been outlined.

**Action points**

a) Strengthen data collection, recording and reporting at source

b) Strengthen regular data analysis and review at health facility, district and national levels

c) Establish a mechanism for data collection and reporting from private sector health care facilities

d) Operationalize the NMCP composite malaria database and assign responsibilities for its routine and overall management.

e) Develop standard reporting templates for partners to facilitate the incorporation of partner data into the NMCP database.

f) Establish and regularly update a research agenda that is disseminated to all partners

**IV. Conclusion**

The MPR process comprehensively reviewed the malaria programme over the last decade. While progress has been made in the delivery of the key technical and supportive interventions, there remains a significant gap in achieving universal coverage for impact. However, the absence of quality routine data (especially from in-patient malaria cases and deaths in the light of low deployment of parasitological confirmation of malaria), does not allow for clear conclusions on the extent of the impact of the interventions Uganda has deployed so far to control malaria in the review period.

Based on the current malaria epidemiological profile, a rapid scale up of insecticidal coverage to achieve a significant level of community protection either through LLINs and/or IRS, parasitological diagnosis and prompt treatment with effective ACTs is required to achieve the vision of a Malaria-Free Uganda. Implementation of the action points in this aide memoire will enable Uganda efficiently use its available resources to significantly reduce the burden of malaria which still remains unacceptably high.
V. Commitment

We, as the Ministry of Health and partners, commit ourselves to the implementation of this MPR action points to facilitate the accelerated scale up of malaria control interventions for universal access and sustainable impact with the ultimate goal of malaria control and subsequent elimination in Uganda.

Signed on behalf of the Government of Uganda and Partners:

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In Kampala, Friday 27th May 2011