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 refining or redefining the strategic direction and focus. This aide memoire summarizes the major findings and critical actions emerging from the Rwanda MPR. The aide memoire is neither a memorandum of understanding nor a legal document. It is a re-statement of the joint commitment of the Ministry of Health and partners, to work together to follow up on the recommendations and support implementation towards the achievement of the vision of a malaria free Rwanda.

II. Background
The Ministry of Health, through the Malaria Unit/TRAC Plus, in collaboration with partners decided to undertake an in-depth review of the national malaria control programme. 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 malaria control interventions and the 2010 global drive to achieve universal coverage with LLINs, parasitological diagnosis and treatment with ACTs.

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:

a) to review the epidemiology of malaria in Rwanda;
b) to assess progress toward achievement of national, regional and global targets;
c) to conduct a mid-term evaluation of the current strategic plan 2008 – 2012;
d) to review the current program performance by intervention thematic areas and service delivery levels;
e) to review the structure, organization, and management framework for malaria control within the health system and the national development agenda;

f) to pave way for development of the new RMCP Strategic Plan, new RMCP M&E plan both of which are an important precondition for resource mobilization including submitting the Round 11 GF proposal; and

g) to define the next steps for sustaining and improving program performance;

The review was organised in 3 phases. Phase 1 involved consultation of partners to agree on the need and scope of the review, and development of implementation plan. Phase 2 was the desk reviews leading to the production of the thematic reports across the spectrum of activities in Rwanda. Phase 3 involved central level consultations with senior management of the Ministry of Health and representatives of partner agencies and stakeholders, including civil society, and field visits to district hospitals, health centres and community level to validate the findings of the desk reviews, with the support of an external review team.

III. Key findings and action points

1. Malaria Epidemiology

Rwanda has made extraordinary progress in the fight against malaria. With the exception of an upsurge in cases in 2009, associated with declining effective LLIN coverage, there has been a steady and highly significant decrease in malaria burden throughout the country including declines in malaria morbidity and mortality. Rwanda represents one of the greatest successes in malaria control programming in Africa built on a highly efficient performance based decentralized health system.

Action points

1. Update the epidemiological stratification map for the country
2. Use the routine data to provide epidemiological evidence for improved targeting to strengthen the implementation of cost effective interventions, given sub-district variations in malaria epidemiology.

Malaria Programme Management, Policies and Strategies

The malaria control programme in Rwanda is one of the strongest in Africa. Contributory factors to this success include the strong political support and country ownership, evidence based programming, success in mobilizing resources, alongside zero tolerance of corruption and a significant emphasis on performance based implementation in a strong health system. Other key factors in the success are the integration and decentralization of malaria control at all levels including a strong community health worker network which facilitates community involvement and participation and a strong HMIS including the web based community health information system SIS.com.

Action points:

- Ensure predictable and sustained financing from both domestic and international sources:
  - Increase Government contributions to malaria control to reduce reliance on external donors.
  - Investigate opportunities for innovative financing mechanisms such as tourist taxes, airline taxes and enhance private sector participation in malaria control.
  - The Government could consider broadening the participation of more donors in malaria control
- Reorient the national program to further enhance evidence-based targeting of interventions for impact based on feedback from this review.
2. Malaria Intervention Tools

A. Malaria diagnosis and treatment
In 2010, Rwanda has achieved one of the highest rates of parasitological diagnosis in Africa, with an estimated 94% of suspected malaria cases being parasitologically diagnosed through microscopy or rapid diagnostic tests. Additionally, the country has also achieved universal coverage of ACT treatment through the public health system including Faith Based facilities and through integrated community case management of children under five. The supply and logistics system based on consumption data demonstrates very few stock-outs of anti-malaria drugs, RDTs, and microscopy supplies.

Action points
- Routinely analyse data provided by universal parasitological diagnosis to further understand seasonal and geographical distribution of malaria, and the impact of malaria control interventions at district and community levels to support targeted programming.
- Consider the introduction of rectal artesunate for emergency pre-referral treatment of complicated malaria cases by CHWs to higher level health facilities.
- Review the management of severe malaria to identify potential areas for improvement.
- Ensure universal and equitable access to diagnosis and treatment at community level with the support of the health insurance scheme.

B. Vector control
Rwanda promotes a policy of integrated vector management. The mainstay of vector control is universal coverage with LLINs targeting all population groups throughout the country, supported by indoor residual spraying in targeted districts. In 2006, Rwanda scaled up LLIN coverage targeting children under 5 which resulted in 60% of children sleeping under a net. However, net coverage decreased to less than 25% in 2009 leading to upsurges in malaria cases. The malaria control programme and partners rapidly mobilised distribution of 6.1 million LLINs resulting in universal coverage in February 2011 and leading to a reversal of the resurgence. The 2009 experience has highlighted the importance of maintaining universal coverage and that success can rapidly be reversed.

Action points
- Strengthen the community based distribution mechanism to ensure a continuous delivery of nets to replace nets that have worn out and to cover new sleeping spaces.
- Secure sufficient resources to allow for the sustained and timely financing and delivery of the vector control programme so that gains in coverage are not lost.
- Develop the Integrated Vector Management Strategy.
- Continue with the plan for IRS in 2011 and use this to evaluate the impact of one or two spray rounds and district versus targeted coverage in the context of universal LLIN coverage to assess the added value of IRS in combination with universal coverage of LLINs in the context of IVM.
- Establish a capacity building plan including sufficient equipment, entomology laboratory capacity and human resources to ensure the effective surveillance and monitoring of the impact of vector control interventions.
C. Epidemic preparedness and response
The malaria epidemic preparedness and response system in Rwanda requires updating in the context of successful malaria control programming leading to a decreased malaria burden. With this decreasing burden, it is expected that there will be increases in areas with unstable malaria transmission over time. Additionally there is a requirement to revisit how epidemics are identified and responded to. Both cross border and in-country population movements may contribute to possible increase in malaria cases.

Action points
- Update the malaria epidemic response plan and guidelines.
- Strengthen routine surveillance for relevant indicators to detect and predict outbreaks and revise the methodology of detecting outbreaks and responding to them at local levels. As malaria cases continue to decline, there will be a need to establish systems of surveillance to detect increases in cases at district and community level for appropriate local level response mechanisms.
- Establish cross-border malaria control initiatives aimed at harmonized and coordinated malaria control interventions with neighboring districts and countries. This will include high level ministerial advocacy as well as cross border mapping of intervention coverage, and identification of gaps requiring further action.

D. Advocacy Communication and Social Mobilization
IEC tools and messages have been developed and widely disseminated through multiple channels including community health workers and mass media approaches. Improvements in knowledge of malaria signs and symptoms, malaria transmission and control have been documented as well as very positive trends in key behaviours such as net use and treatment seeking behaviour.

Action points
- Prioritise evidence based behaviour change communication activities in all upcoming malaria related funding applications in order to ensure sufficient resources are available to further increase levels of knowledge and positive behaviours.
- Carry out Operational research to document the added value and impact of the different communication channels including through community health workers. This will allow the programme to focus on communication channels that have the most impact on malaria prevention and provide value-for-money.

E. Surveillance, Monitoring and Evaluation and Operations Research
Rwanda has one of the best routine health management information systems in Africa in terms of timeliness and completeness. Moreover, the HMIS has computers in all health centers and district hospitals as well as a monitoring and evaluation officer in each district and data managers at health center and district hospital levels. However further timely analysis of this data would enhance programming decisions. TRACPlus has been using an electronic system for HIV called TRACNET which is a phone and web-based real-time reporting system from health facilities. A module is being developed to enable community health workers to send data on maternal and child health to the electronic platform, and a second model for IDS. At present, data from private facilities and referral hospitals are not captured in the HMIS. The country has a strong operational research programing including monitoring of insecticide and drug resistance.
Action points:
- A review of the all data elements being collected by HMIS and SIScom should be carried out and a set of indicators be defined for regular compilation and analysis for decision making at all levels.
- In the context of the introduction and roll out of the weekly reporting system (IDSR), the weekly analysis and use of routine data for action at national, district and health centre levels should be strengthened.
- All referral hospitals and private sector facilities should also be incorporated into the HMIS.
- In order to ensure timely detection of resistance and take prompt remedial action, there is need to continue therapeutic efficacy testing; insecticide resistance monitoring; and monitoring of residual effects of insecticides

F. Procurement supply management
Health facilities in Rwanda report few, if any, stock outs of essential commodities as long as there are stocks available at national level. At community level, there have been some stock outs recorded of ACTs. Rwanda’s malaria procurement and supply management system holds quarterly meetings with district pharmacies to monitor the good pharmaceutical management of malaria commodities. An annual quantification exercise is carried out every year for commodities which is revised every six months. There is a close collaboration of the Malaria Unit with district pharmacies for monitoring of supply chain management.

Action points
- Strengthen the drug management system at community level and procure more suitable drug boxes.
- Strengthen the LMIS feedback mechanism
- Ensure funding for the procurement of medicines for severe malaria are included in the Government budget.

IV. Conclusion
The Rwanda Malaria program performance review provided important findings regarding the changing epidemiology of malaria, the policy and programming framework and significant progress and performance in the delivery of the key technical and supportive interventions, in particular achieving universal coverage with LLINs, and near universal coverage of parasitological diagnosis of suspected malaria cases through the public sector and universal access to treatment with ACTs. Rwanda is a success story in Africa achieving more than 50% reduction in malaria cases and deaths. Implementation of the recommendations of the review will place Rwanda on the path to pre-elimination and a malaria free future.

V. Commitment
We as the Ministry of Health and partners in the national malaria control program commit ourselves to the implementation of the programme review action 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 Rwanda and Partners:

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In Kigali, Friday 18th March 2011