



NATIONAL
MALARIA CONTROL
CENTER &
PARTNERS IN
ZAMBIA MALARIA
CONTROL

ZAMBIA MALARIA PROGRAM PERFORMANCE REVIEW 2010

AIDE MEMOIRE

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 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 Zambia.

II. Background

In 2009, the Government of Zambia under the auspices of the National Malaria Control Programme (NMCP) 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 systems used in delivery of malaria control services. The specific objectives of the MPR were:

- To review malaria epidemiology in Zambia
- 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 4 phases. Phase 1 involved consultation of partners to agree on the need and scope of the review, development of implementation plan; Phase 2 involved desk reviews leading to the production of the thematic reports across the spectrum of activities in Zambia's malaria control work; Phase 3 involved central level consultations with senior management of Ministries of Health and representatives of partner agencies and stakeholders, and field visits to provinces and districts to validate the findings of the desk reviews culminating in a report and recommendations; and Phase 4 will involve follow up on the recommendations.

III. Key findings and action points

1. Progress in Malaria Control in Zambia

In the last decade, there has been remarkable documented progress in malaria control in Zambia. All areas of the country have benefitted (some more than others) and many lives have been saved, illnesses and infection prevented and the social and economic benefits have accrued. Compared to neighboring and other African countries, Zambia has been a leader in achieving high coverage with effective interventions and demonstrating progress.

Action Point

- The partners in malaria control and the people of Zambia should celebrate this progress

2. Malaria Epidemiology

In the past, malaria was broadly endemic across Zambia and malaria transmission, illness and mortality was determined by existing climate, geographic, and biologic features of the vectors, humans and parasites. During the last decade, particularly the last five years, the malaria control program work has re-engineered Zambia's malaria epidemiology. Emerging evidence from routine information systems, national surveys, and focused studies consistently show declining malaria trends with possible epidemiological transition in parts of the country. Today Zambia can be stratified into three malaria epidemiological categories:

- Type 1) areas where malaria control has markedly reduced transmission and parasite prevalence is <1% (Lusaka city and environs);
- Type 2) areas where sustained malaria prevention and control has markedly reduced transmission and parasite prevalence is at or under ~10% in young children at the peak of transmission (Central, Copperbelt, North-western, Southern, and Western Provinces); and
- Type 3) areas where progress in malaria control has been attained but not sustained and lapses in prevention coverage have led to resurgence of infection and illness and parasite prevalence in young children exceeds 20% at the peak of the transmission season (Eastern, Luapula, and Northern Provinces).

The progress and organizational strength in malaria control in Zambia is most evident at national level and there is consensus that extension of support, capacity strengthening, and hard work at provincial, district, community, and household levels will be a critical requirement for progress in the coming years. The plans for this movement to stronger provincial, district and community support will need to address the 3 different epidemiologic settings with differing transmission intensity and prevention coverage. The challenge of achieving a malaria free Zambia is to incrementally expand the current progress to attain malaria free areas within the country through focused and targeted scaled up actions in all epidemiological zones.

Action points

- Strengthen malaria case mapping and trend monitoring to track temporal and geographic variations to inform all levels for program action
- Scale up the implementation of the package of effective malaria control interventions to universal coverage of all populations at risk; target the intervention package by epidemiological zones
- Establish an overall approach with government and partners including objectives and targets for strengthening malaria control support to districts, communities, and households
- Examine and establish an updated national-level malaria control support system for this approach that includes effective and efficient full supply of needed commodities, logistics support, technical assistance, training and overall management and supervision. Begin with strengthening in selected provinces/districts in the 3 different epidemiologic settings to gain experience prior to wide scale expansion; plan for review and expansion. This approach should address the different needs in the 3 different epidemiologic settings:

- Type 1 Areas with very low transmission should be supported to further reduce transmission through a combination of sustained high prevention coverage and added actions to improve surveillance and response that identify remaining foci of transmission for containment (including treatment, finding additional cases around the index case, and filling ITN and IRS gaps as appropriate).
- Type 2 Areas with low transmission should be supported to achieve and sustain very high prevention coverage with ITNs and IRS (where appropriate), strengthened case management with universal diagnosis, timed interval efforts to screen the population for infection and treatment to reduce the parasite pool in humans, movement toward enhanced surveillance in facilities and communities for foci of transmission for containment.
- Type 3 Areas with persistent high transmission should be supported to achieve and sustain very high prevention coverage with ITNs and IRS (where appropriate) and strengthen case management with a view to reassessing to see if these areas have moved into type 2 areas.
- GRZ and partners should jointly plan and budget to resource this work for improved high prevention coverage, movement to universal diagnosis of suspected malaria, and other specific actions based on epidemiologic areas.

3. Malaria Programme Management, Policies and Strategies

Malaria control is a national priority. The National Malaria Control Programme (NMCP) is strategically placed within the Directorate of Public Health and Research in the Ministry of Health. It has a well-established national coordinating body with malaria technical Working Groups providing planning and implementation technical support. The program has a number of steady and long term partners who provide technical assistance and funding for malaria interventions.

Zambia has solid policies and strategies for malaria control in place. This includes a comprehensive strategic plan for 2006—2010, policy guidance for the key interventions and support services (e.g., IEC-BCC and monitoring & evaluation), and budgeted annual work plans. In discussions at national, provincial, and district levels and across the ministry and partner organizations, there is wide recognition and appreciation of the progress to date, the accomplishments of the NMCP in engaging partners, and the progress with donor partners in resourcing the tools and commodities. A new costed malaria strategic plan 2011-2015 is being developed to support the new vision of a malaria free Zambia.

Overall, the policies and guidelines for Malaria control are consistent and coordinated. The NMCP and their partners at provincial, district and community levels currently lack adequate human resource capacity to fulfill its mandate. At national programme level, there is need to assess and fill gaps to undertake planning, procurement and logistics support, training and technical support to peripheral levels. At the provincial and district levels there are no or only part-time designated malaria focal persons to coordinate activities. The distribution system for malaria commodities is imperfect, but has grown in capacity and sophistication and now suffers most from the intermittent external supply of commodities leading to frequent stock outs of nearly all commodities. Taken together, these weaknesses hamper full implementation of malaria control activities. Budgetary allocation from Government of Zambia is inadequate to cover malaria control interventions and there is heavy reliance on donor partner support.

Action points:

- Appoint or designate dedicated malaria control focal persons to coordinate implementation at provincial and district levels
- Identify flexibility in national structures and partner support for malaria control, and update staff terms of reference and/or appoint staff to fully address malaria program management including planning, training, partnership coordination, resource mobilization and commodities logistics
- Evaluate 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

4. Malaria Intervention Tools

A. Malaria diagnosis

With improved malaria control in Zambia, universal coverage of quality malaria diagnosis has become a critical need. This is both for the purpose of directing:

- Identification of illness that is or is not due to malaria so that it can be treated properly (**care & treatment**); and
- Identification of infection so that surveillance and response can accurately track transmission, contain it, and chart progress (**surveillance & transmission containment**)

While “diagnosis & treatment” are typically linked in the language of malaria control, we emphasize diagnostics here as Zambia is now in a position where universal diagnosis is both possible and sorely needed in order to progress in the next steps in malaria control.

Action points

- Implement the policy of testing every suspected malaria case to confirm malaria at all levels
- Review and strengthen the overall system of malaria laboratory diagnosis from central to peripheral levels. This should include review of quality control and reference lab capacity as well as staffing, training, supervision and skill maintenance across provincial, district and community levels. The role of microscopy, rapid diagnostics, and new and emerging lab technologies should be examined. Also, needs assessment and systems to assure supplies should be examined.
- Strengthen consistency of DHIS reporting on laboratory-confirmed malaria.

B. Malaria treatment

In 2003, the country changed its 1st line treatment for uncomplicated malaria from chloroquine to an artemisinin based combination treatment (ACT; artemether-lumefantrine [AL or Coartem®]) due to drug resistance. Since then, guidelines on case management 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 too low in the country. In 2009—2010 transmission season, Zambia ‘turned the corner’ such that the majority of children treated with an antimalarial drug receive AL; however, still the lack of universal diagnosis and stockouts in ACTs lead to confusion about full progress toward achieving targets in proper and prompt management of malaria.

Action points

- Manage and resolve bottlenecks associated with the procurement and distribution of malaria medicines
- Scale up training of health workers in both the public and private sector on case management with ACT; this must include health care staff at all levels from hospitals to communities.
- Implement management of malaria in health facilities, communities and homes (where appropriate) using ACT to increase access to prompt malaria treatment

C. 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) with at least 2 doses of SP during pregnancy, 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 and a long-standing consistent policy has resulted in quite high uptake of IPTp which currently stands at 86% for IPTp1 and 69% for IPTp2. Use of insecticide treated nets among pregnant women currently stands at 46%

(up from 2% in 2002). While this progress should be celebrated, further discussions with the Reproductive Health community are warranted to identify the factors that can fill the remaining gap to exceed targets for full IPTp coverage and ITN use.

Action points

- Facilitate meetings between NMCP, Reproductive Health and relevant partners to examine remaining gaps and seek solutions to achieve universal IPTp 2+ dose coverage, ITN use and prompt recognition and treatment of any malaria cases in pregnant women
- Work with medical stores limited and the reproductive health department to assure supplies of SP for IPTp and streamline the distribution of SP to all ANC facilities.

D. Vector control

The main interventions for vector control in Zambia are use of insecticide treated mosquito nets (ITNs; specifically long-lasting ITNs or LLINs) and indoor residual spraying (IRS). The ITN policy initially targeted young children and pregnant women and has moved to covering sleeping spaces in all households to fully address transmission reduction – using two main distribution methods: district-wide distribution and ANC-based malaria in pregnancy ITN scheme; both distribute nets free. As a result, 64% of households in Zambia own at least 1 ITN but this ranges from 75% in Western Province to 57% in Luapula Province. Indoor residual spraying has been successfully implemented in up to 36 Districts attaining operational coverage of >90% of the targeted structures. Across Zambia, 73% of households report either owning an ITN or having had their house sprayed this past year. From studies in 2003-2004, malaria vectors were documented to be fully susceptible to the insecticides used for vector control in Zambia; recent focal studies have raised concerns that insecticide resistance may be appearing and this is being investigated further.

Action points

- Direct scale up and sustained vector control according to epidemiologic zones.
- Expand IRS to additional districts as possible to achieve high coverage in targeted areas.
- Build capacity at national and sub-national levels for entomological surveillance and insecticide resistance monitoring and strengthen the use of entomologic evidence for policy and strategy.
- Plan for sustained financing and logistics and supply for ITNs and IRS coverage nation-wide.

E. 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 able to reach all populations in need. The launch and roll out of the directed malaria control based on epidemiologic characteristics and the emphasis on community engagement is an opportunity of effectively implementing community based advocacy and communication for behavior change. The major challenge to this will be the lack of a clear policy on the coordination of advocacy and communication activities at provincial and district level.

Action points

- Increase human capacity and financial resources for the coordination and implementation of expanded and targeted activities for advocacy and behavior change communication
- Strengthen the capacity of provincial and district administration to undertake community based malaria behavior change communication activities with involvement of key partners including faith-based groups and village/community leaders
- Standardize malaria advocacy and behavior change communication tools and enhance dissemination through proven community channels

F. Surveillance, Monitoring and Evaluation and Operations Research

The NMCP 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

population-based national surveys and the Health Management Information System (HMIS) has allowed for tracking of disease control progress over the last decade. In 2009, the HMIS was revised (now called the District Health Information System [DHIS]) and includes additional relevant malaria information and has strengthened routine data collection, use and dissemination. Zambia has substantial data on programme progress and the current epidemiologic situation and publishes an informative quarterly M&E Newsletter. Information weakness persists at district and community levels. Operation research activities have been undertaken by MOH staff, in-country research institutions, and academic and operational partners. The main program challenges in operational research including forum for dissemination and appropriate uptake of operational research findings.

Of note, epidemic preparedness and response has been an element of the malaria strategy in Zambia. However, with the improvements in malaria control and the planning for stronger and stronger surveillance and response, Zambia is moving to a place where each case requires a response. Thus, the epidemic preparedness and response work should join with the spectrum of surveillance, monitoring and evaluation processes in districts and communities.

Action points:

- Expand capacity for monitoring and evaluation to district and community and strengthen generation and use of evidence for policy, strategy and action.
- Based on the 3 epidemiologic settings (refer to earlier Epidemiology section), initial district-wide efforts should be undertaken to try and test systems of improved surveillance and response – based at facilities or in communities and including determination of foci of transmission, population testing and treatment to reduce the parasite pool in people, active case detection and other strategies including mapping and containing transmission.
- Disseminate widely and regularly the quarterly and annual malaria reports including to districts and communities
- Prioritize the operational research agenda through operational research technical working group identification of key gaps and new intervention plans that will require further evidence and tracking of intervention effectiveness and efficiency.

5. Governance and sustained resource mobilization

The growing experience with malaria control scale-up in Zambia and elsewhere has demonstrated that strong national leadership is critical to success, and that a solid and predictable resource base is absolutely required for effective planning and program action. Recent concerns in Zambia regarding financial management in areas of health have led to suspension of external funding over the past ~1.5 years. Commodity availability (ITNs, RDTs, ACTs in particular) has been markedly affected and the MIS 2010 shows substantial drops in household ownership and use in several provinces (especially Luapula and Northern Province), and consequent resurgence of malaria infection rates, cases, and hospitalizations (and probably deaths). This now includes a growing gap in vector control coverage in advance of the coming transmission season. There is an urgent need to resolve the issues and revert to strong partnership resourcing in malaria control in Zambia (the MPR team recognizes that this is being addressed) in order to take the next critical steps in sustaining impact and advancing on further transmission reduction. In the near term (for the coming transmission season), MOH and donor partners should urgently seek ways to assure that prevention gains are not lost. In the longer term, serious discussions on mechanisms for sustained resourcing must be held so that the malaria control impact remains and additional gains can be achieved. These should be based on reviewing full financing needs for universal prevention coverage and for the actions proposed in the National Malaria Strategic Plan 2011-2015.

Action points:

- Finalize the National Malaria Strategic Plan 2011-2015 to serve as a basis for the gap analysis and budgeting leading to the discussions of long-term sustained funding.

- Ensure good management and governance over financial inputs into the health sector.
- Urgently address commodity gaps and critical programming funds to deliver services (ITN & IRS coverage, universal diagnosis and effective treatment) for the coming transmission season.
- MOH and Partners should meet to plan for sustained funding to assure sustained impact and appropriate progression in malaria control

IV. Conclusion

The Zambia malaria programme has achieved remarkable progress in the past five years. This 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 Zambia firmly on the path to a malaria free future.

The following strategic directions are recommended for the Zambia malaria control program in the next five years

1. Develop, update and assemble relevant strategic documents for malaria control in Zambia
2. Scale up and direct interventions based on epidemiological evidence – currently with 3 different malaria transmission zones in the country
3. Strengthen malaria surveillance and response as an active effort to reduce transmission, to address the epidemiological differences across the country and utilize the evidence for ongoing refinement of policy and strategy
4. Build and extend malaria control operational strengths at provincial, district and community levels in line with national policies on decentralized programs
5. Strengthen partnership and performance management to address human and financial resource needs, commodity requirements, and program action.

V. Commitment

We as the Ministry of Health and partners of the National Malaria Control Center in Zambia, 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 Zambia and Partners:

 XXXXX
 Permanent Secretary
 Ministry of Health

 XXXXX
 World Health Organization Representative
 Zambia Country Office

XXXXX
Unicef Representative
Zambia Country Office

XXXXX
Country Representative
World Bank – Lusaka

XXXXX
Health Advisor – Zambia
Department for International Development

XXXXX
Director USAID/OPH
Office of Population and Health – Lusaka

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In Lusaka, Zambia on Thursday 9th September 2010