# EARN

# EASTERN AFRICA Roll Back Malaria NETWORK

## Annual Meeting Report

Zanzibar Beach Resort
Zanzibar

20-24 November, 2006

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# 1 Executive Summary

The sixth Annual Review and Planning Meeting for Roll Back Malaria in Eastern Africa was attended by more than 140 participants representing 11 national malaria control programmes, as well as global, regional and national partners.

The objectives and outcomes of the meeting were: to report on the implementation of RBM activities and key achievements over the previous 12 months, to share country experiences on scaling-up interventions, to identify key health systems issues faced by countries, to review planned activities and identify technical support needs, to identify achievements and constraints and propose solutions, to provide country partnerships with technical updates, and identify country technical support needs.

The meeting was officially opened by the Honourable Minister of Labour, Youth, Women, Children Development and acting Minister of Health, Zanzibar, Ms Asha Abdalla, who was accompanied by the Deputy Minister of Health, Zanzibar; the Principal Secretary of the Ministry of Health, Zanzibar; the WHO Representative, Zanzibar sub-office; the UNICEF Resident Officer, Zanzibar; a representative of the RBM Secretariat, Geneva; and a representative of UNICEF Headquarters.

The first day of the meeting focused on sharing of country experiences in scaling up malaria prevention and control. This was followed by two days of presentations and discussions in key technical and implementation support areas, including procurement and supply management, malaria diagnosis, the role of the private sector in ensuring access to effective antimalarials, malaria communication, the relative merits of ITNs and IRS as vector control methods, new developments in vector control and in antimalarial medicines, and the links between nutrition and malaria. In addition to presentations and plenary discussions in each of these technical areas, participants undertook gap analysis group work in relation to the forthcoming RBM validation exercise. Following the group work, eight country programmes declared their interest and readiness to participate in the first phase of this process scheduled for January to March 2007. The remaining three country programmes elected to defer participation until the second phase, commencing in April 2007. Country teams also drafted their technical support requirements for 2007.

The meeting come up with a number of recommendations and action points related to support to country level malaria programmes with the view to improving the resource base, harmonisation and scaling up of effective malaria interventions.

In resource Mobilisation, the meeting acknowledged that low quality assistance was provided to some countries in GF Round 6. EARN is committed to facilitating and coordinating quality and timely technical assistance to countries in preparation for GF Round 7. EARN recognizes that the gap analysis process has potential for countries, but the process should be transparent, with clear TOR and input from countries. EARN recommended that support to countries be provided in phases. For those countries scheduled for validation in the first phase, missions are to be co-ordinated to coincide with PMI, World Bank or other similar missions in order to reduce duplication and the burden on national programme staff.

The meeting recommended that communication needs to be prioritised in the gap analysis process to ensure that all countries have communication strategies and implementation plans. EARN to appoint a communication focal point to assist in this exercise. The meeting also proposed that NMCPs consider identifying and recruiting national “malaria ambassadors” to further support advocacy efforts and countries present were urged to improve documentation and dissemination of national successes and ensure national leadership and decision-makers are more aware of international and locally-generated research results and best practices.

EARN to work with the RBM Procurement and Supply Management Working Group to ensure that strengthening national capacities in PSM is prioritised alongside pooled procurement and other mechanisms and these issues to be included in the gap analysis process. The meeting also urged countries to hold internal and bilateral discussions with the GF to determine the appropriateness, desirability and specific requirements of voluntary pooled procurement.

On vector control, the EARN meeting recommended that the choice in the application of ITNs or IRS as an appropriate method for vector control should be a country decision based on consensus of all stakeholders and a consideration of feasibility, resource availability, and country preference, as both interventions are effective.

Given the reality that 40-80% of child fevers are treated outside public health facilities, the meeting recommended that mechanisms be developed to ensure the participation of the private sector in providing prompt and effective treatment as close as possible to communities. The sub-regional partnership should begin to look at ways of preventing and controlling the inflow of fake ACTs (and other malaria commodities) onto the market. This should include prioritizing QA/QC processes (e.g. MINILAB), strengthening enforcement capacity, facilitating cross-border collaboration and cooperation (Interpol), and mobilizing political will. Countries were also urged to consider developing nationally appropriate packaging of antimalarials to improve compliance and correct use and to consider developing locally appropriate training and job aids to improve the use of RDTs.

Recognising that the area of monitoring and evaluation remains the weakest programme area within the EARN sub-region, countries were requested as much as possible to report against the standardized malaria indicators in their presentations and other documentation. They should ensure that baseline data are available for all indicators against which they must report in 2010. EARN will support countries to develop standardized indicators in communication and IRS to be added to the RBM Core indicators, and to support countries to use alternatives to surveys and/or proxies to facilitate routine monitoring between surveys and facilitate strategic planning for effective data dissemination and use. As part of the “three ones” approach, countries are encouraged to develop a single M&E Framework with an agreed set of Input-Process-Output measures (per MERG), “surveillance” for intervention tool efficacy (drugs and insecticides) and “problem solving” systems when inputs, processes, and outputs are not met. Country programmes to plan for mid-term evaluation of their 2nd generation Strategic Plans to facilitate adjustments, where deemed necessary.

The EARN countries and partners acknowledge the inescapable relationship between nutrition and infection and recommend expanded and stronger consideration of nutritional problems that affect malaria infections and creation of better linkages between national malaria programs and research and interventions aimed at preventing and controlling nutrition and micronutrient deficiencies. EARN to appoint a nutrition focal person to further develop these linkages; EARN countries and partners to continue to strengthen linkages with other child survival interventions and programmes (e.g. IMCI, EPI, Reproductive Health, etc).

## Acknowledgements

Many persons have contributed directly or indirectly to the success of the Eastern Africa Roll Back Malaria Network (EARN). I take this opportunity on behalf of the EARN coordinating team and on my own behalf to express our heartfelt gratitude to you both severally and individually.

The sixth Annual Review and Planning Meeting for EARN was attended by more than 140 participants from 11 malaria control programmes. The success of a meeting of this kind depends on the dedication and commitment of many individuals and organizations. However, the following deserve particular mention and acknowledgement:
The Ministry of Health, and especially the Honourable Minister of Labour, Youth, Women, Children Development and acting Minister of Health, Zanzibar, Ms Asha Abdallah, who was accompanied by the Deputy Minister of Health, Zanzibar; the Principal Secretary of the Ministry of Health, and the Zanzibar Programme manager Mr. Abdullah Ali; UNICEF Zanzibar Office; WHO Office, Zanzibar; Ms Caroline Charles, Ms Saba Ali, Dr Francois Rumeci, Dr Chwaya Hababu, for ensuring the meeting ran smoothly and the rapporteur Mr. John Silver for preparing this report and members of the private sector for supporting the evening social functions and other forms of support during the meeting.

A special word of thanks is also extended to the all participants who represented various EARN partner organisations at country, regional and global levels.

The Members of the EARN Coordinating Team, Halima Mwenesi, Melanie Renshaw, Josephine Namboze, Gladys Tetteh, Ricky Orford and Graham Root are all acknowledged both as individuals and as a team.

# 2 Acronyms

| | |
|---|---|
| ACT | Artemisinin-based Combination Therapy |
| ADDO | Accredited Drug Distribution Outlet |
| AFRO | Africa Regional Office (WHO) |
| ANC | Antenatal Care |
| AQ | Amodiaquine |
| ART | Artesunate |
| BCC | Behaviour Change Communication |
| CBO | Community Based Organisation |
| CCM | Country Co-ordinating Mechanism (GFATM) |
| CHA | Community Health Agent |
| CHW | Community Health Worker |
| CQ | Chloroquine |
| DLDB | Duka La Dawa Baridi (non-accredited drug shop, Tanzania) |
| DHS | Demographic and Health Survey |
| EARN | Eastern Africa RBM Network |
| GF | Global Fund (GFATM) |
| GFATM | Global Fund against HIV/AIDS, TB and Malaria |
| HBMF | Home Based Management of Fever |
| HFS | Health Facility Survey |
| IEC | Information, Education and Communication |
| IMCI | Integrated Management of Childhood Illness |
| IPT | Intermittent Preventive Treatment |
| IPTp | Intermittent Preventive Treatment for pregnant women |
| IRS | Indoor Residual Spraying |
| ITN | Insecticide Treated Net |
| LLIN | Long-Lasting Insecticidal Net |
| M&E | Monitoring and Evaluation |
| MICS | Multiple Indicator Cluster Survey |
| MIS | Malaria Indicator Survey |
| MSH | Management Sciences for Health |
| NGO | Non-Governmental Organization |
| NMCP | National Malaria Control Programme |
| PMI | US President's Malaria Initiative |
| PSI | Population Services International |
| PSM | Procurement and Supply Management |
| RBM | Roll Back Malaria |
| RDT | Rapid Diagnostic Test |
| REAPING | Roll Back Malaria Essential Actions Products Investment Gaps |
| SP | Sulphadoxine-pyrimethamine |
| UNICEF | United Nations Children's Fund |
| WG | Working Group (RBM) |
| WHO | World Health Organization |
| WHOPES | World Health Organization Pesticide Evaluation Scheme |

# 3 Introduction

The Zanzibar meeting was the sixth Eastern Africa RBM Network Annual Review and Planning Meeting, and builds on the successes of the previous meetings held in Tanzania in 2000, Kenya in 2001, Uganda in 2003, Rwanda in 2004, and Kenya in 2005.

# 4 Purpose of Meeting

To contribute to the co-ordinated implementation and scale up of RBM in the Eastern Africa sub-region

# 5 Objectives and Expected Outcomes of Meeting

## *5.1 Objectives*

- To report on the implementation of RBM activities and key achievements of the last 12 months
- To identify key technical and programmatic issues on which to focus in the coming year
- To share country experiences on scaling-up interventions in order to learn lessons and identify best practices
- To identify key health systems issues faced by countries when going to scale with malaria control interventions and to propose how to address such issues
- To review planned activities and identify technical support needs for the next 12 months in order to overcome bottlenecks in implementation

## *5.2 Expected Outcomes*

- Progress in the implementation of RBM reviewed and achievements, constraints and possible solutions identified.
- Country consensus on how the Eastern Africa RBM Network and the wider RBM Partnership can provide support to countries on going to scale with malaria control interventions
- Countries and partners provided with technical updates in key interventions to assist in further scaling-up
- Annual RBM workplans reviewed and country technical support needs for the coming 12 months identified

# 6 Key Issues and Recommendations

## *6.1 Resource Mobilisation*

- EARN countries and partners are justified in feeling a certain amount of indignation at the results of GF Round 6, and EARN will express these concerns through submission of a statement to the wider RBM partnership through the RBM Advocacy Group

- The EARN co-ordinating team and partners acknowledge that insufficient quality and timely technical assistance was provided to some countries submitting proposals to GF Round 6. EARN is committed to facilitating and coordinating quality and timely technical assistance to countries preparing GF Round 7 proposals in order to achieve at least a 90% success rate. Countries are requested to ensure that they make timely requests to EARN for support.

- Countries are encouraged to discuss grant implementation status with their respective Local Funding Agents prior to submitting future GF proposals to avoid rejection on the grounds of inadequate implementation of earlier rounds.

- The malaria community needs to develop a stronger voice to put it on an equal footing with that of the HIV/AIDS community and other advocates in ensuring that malaria gets the global attention and resources it deserves

- EARN recognizes that the proposed RBM gap analysis process has potential for countries but the process should be transparent, with clear TOR and input from countries. EARN recommends that in those countries scheduled for validation in the first phase, missions are co-ordinated to coincide with PMI, World Bank or other similar missions in order to reduce duplication and the burden on programme staff

- EARN requests the global partnership to provide more information on the proposed donor harmonisation meeting and the resource allocation processes, should the conference prove successful.

- Eight EARN national programmes will be proposed to the RBM harmonization WG for consideration for inclusion in the first phase of the validation exercise, prior to the March 2007 donor harmonisation meeting. The remaining countries will receive technical support to ensure their readiness for validation in time for GF Round 7.

- EARN will submit the names of countries that have indicated their readiness to participate in Phase I of the validation exercise, and a draft timetable for missions to those countries, to PMI, the World Bank and other partners

- EARN recommends that the gap analysis process and missions be managed through EARN as the primary technical and coordinating resource in the sub-region

### *6.2 Communication*

- Communication needs to be prioritised in the gap analysis process to ensure that all countries have communication strategies and implementation plans. EARN to appoint a communication focal point to assist in this exercise.

- Country programmes to consider identifying and recruiting national “malaria ambassadors” to further support advocacy efforts

- Countries to improve documentation and dissemination of national successes and ensure national leadership and decision-makers are more aware of international and locally-generated research results

### *6.3 Procurement and Supply Management*

- EARN to work with the RBM Procurement and Supply Management WG to ensure that strengthening national capacities in PSM is prioritised alongside pooled procurement and other mechanisms

- Procurement and Supply Management issues to be included in the gap analysis process

- Countries to hold internal and bilateral discussions with the GF to determine the appropriateness, desirability and specific requirements of voluntary pooled procurement

### *6.4 Vector Control*

- The choice in the application of ITNs or IRS as an appropriate method for vector control should be based on a consideration of feasibility, resource availability, and country preference, as both interventions are effective

- If IRS is selected by a country or countries as an operationally feasible intervention, then clear exit strategies need to be defined in the event that funding for IRS is curtailed in future.

- The decision on which insecticide is appropriate for IRS should only be made after the decision to use IRS has been made. The use of DDT for IRS is a country decision

- EARN countries will continue to support ITN/LLIN scale-up, especially where high levels of coverage and a culture of net use have already been achieved

### *6.5 Case Management*

- Given the reality that 40-80% of child fevers are treated outside public health facilities, mechanisms need to be developed to ensure the participation of the private sector in providing prompt and effective treatment as close as possible to communities

- The sub-regional partnership should begin to look at ways of preventing and controlling the inflow of fake ACTs (and other malaria commodities) onto the market. This should include prioritizing QA/QC processes (e.g. MINILAB), strengthening enforcement capacity, facilitating cross-border collaboration and cooperation (Interpol), and mobilizing political will

- Countries to consider developing nationally appropriate packaging of antimalarials to improve compliance and correct use

- Countries should consider developing locally appropriate training and job aids to improve the use of RDTs

### *6.6 Monitoring & Evaluation*

- Countries should, as much as possible, report against the standardized malaria indicators in their presentations and other documentation

- Countries need to ensure that they have baseline data for all indicators against which they must report in 2010

- EARN to support countries to develop standardized indicators in communication and IRS to be added to the RBM Core indicators, and to support countries to use alternatives to surveys and/or proxies to facilitate routine monitoring between surveys

- EARN to support countries to carry out strategic planning for effective data dissemination and use

- EARN to support countries to develop a single M&E Framework as part of the “Three Ones” Approach, to include
    - Agreed set of Input-Process-Output measures (per MERG)
    - “surveillance” for intervention tool efficacy (drugs and insecticides)
    - “problem solving” systems when inputs, processes, and outputs are not met

- Country programmes to plan for mid-term evaluation of their 2nd generation Strategic Plans to facilitate adjustments, where deemed necessary.

### *6.7 Partnership and programmatic linkages*

- The EARN countries and partners acknowledge the inescapable relationship between nutrition and infection and recommend expanded and stronger consideration of nutritional problems that affect malaria infections and creation of better linkages between national malaria programs and research and interventions aimed at preventing and controlling nutrition and micronutrient deficiencies.

- EARN to appoint a nutrition focal person to further develop these linkages

- EARN countries and partners to continue to strengthen linkages with other child survival interventions and programmes (e.g. IMCI, EPI, Reproductive Health, etc)

- The nature of Private Sector involvement in the EARN Annual Review and Planning Meeting will be discussed at the 1st quarterly EARN Meeting in 2007. Several proposals were received from private sector representatives

# 7 Summary of Presentations and Group Work

## *7.1 Day One - Monday 20th November 2006*

### *7.1.1 Opening Ceremony*

The opening ceremony was chaired by John Chimumbwa (RBM Secretariat, EARN) and the Master of Ceremonies was Dr Abdullah S. Ali (National Malaria Control Programme Manager, Zanzibar). The meeting commenced on a sad note, with a moment of silence in honour of several colleagues from the Division of Malaria Control, Kenya, who were recently lost in a tragic accident.

Dr Abdullah introduced the guest of honour, the Honourable Minister of Labour, Youth, Women, Children Development and acting Minister of Health, Zanzibar, Ms Asha Abdalla. The Honourable Minister was joined by the Deputy Minister of Health, Zanzibar, Mrs Shawana; the Principal Secretary of the Ministry of Health, Zanzibar, Dr M. Jiddawi; the WHO Representative, Zanzibar sub-office, Dr Noor Mohammed; the UNICEF Resident Officer, Zanzibar, Mr. François Rumeci; Dr James Banda of the RBM Secretariat, Geneva; and Dr Melanie Renshaw, Senior Health Advisor (Malaria), UNICEF NY.

National Control Programme participants, and partner organisations briefly introduced themselves.

### *7.1.2 Meeting Objectives – John Chimumbwa*

John presented the meeting objectives (see Section 6 above) and emphasised that the EARN Annual Review and Planning Meeting is essentially about the partnership working to achieve tasks set by national programmes. It also provides a valuable opportunity for participants to meet with national programmes and partners from all sectors so as to obtain updates on developments in malaria prevention and control and to interpret global issues with a national and regional perspective. Other objectives include the identification of gaps preventing the realisation of objectives, and strategising on how to achieve targets set by national leaderships within the context of global targets

Dr Noor Mohammed, WHO Representative, Zanzibar sub-office, then made some opening remarks, in which he expressed his pleasure at being able to attend. He also took the opportunity to congratulate the government of Zanzibar on its recent successes and for its decision to host this important meeting. Dr Mohammed then described how WHO collaborates with the Zanzibar NMCP, through the provision of technical and financial support in the areas of programme management, case management, vector control, malaria in pregnancy, among others. Support to the management function includes Monitoring and Evaluation, advocacy, coordination, and procurement. In relation to access to effective treatment, WHO's support has covered monitoring of therapeutic efficacy, development of treatment guidelines, orientation of health workers, etc. In relation to vector control, Dr Mohammed informed participants that WHO had recently evaluated Zanzibar's IRS programme, which was financed by PMI. In addition, WHO has supported the promotion of the use of effective measures for vulnerable groups, and this included guidelines development, ITN re-treatment, IRS, and insecticide resistance monitoring. Regarding malaria in pregnancy, WHO has supported the implementation of IPT for pregnant women. Dr Mohammed closed his speech by expressing his appreciation for the support of the Ministry of Health and Social Welfare and the NMCP, as well as other partners for their efforts in helping Zanzibar to control malaria, and acknowledged the excellent leadership provided by the MOH and NMCP. Dr Mohammed also noted that all levels of WHO were represented at the meeting, from global HQ, to WHO-AFRO, to country offices, illustrating the importance WHO attaches to the EARN meeting.

Dr François Rumeci, UNICEF Resident Officer, Zanzibar, opened his speech by repeating the shocking statistics on malaria morbidity and mortality in the region to emphasise the importance of this disease. He then went on to state that positive signs of progress are beginning to be seen, with malaria recognised as both a regional and global priority. Dr Rumeci congratulated Eritrea on reaching the Abuja targets ahead of schedule and noted that Malawi and Tanzania are well on track. Recently, rapid scale-up of interventions in many countries in the sub-region, has been supported by financial resources provided by the Global Fund, the US President's Malaria Initiative, World Bank Malaria Booster Programme, bilaterals, and UNICEF, among others. As a result, the world is now in a situation, where for the first time, significant resources are available for malaria control, however, we also note that current funding still falls short of the estimated annual cost of US$ 3 billion required for effective malaria prevention and control. It is therefore essential that current levels of funding continue and are even increased in order to effectively support country scale-up of interventions. It was also noted with some concern that those countries with less developed health systems, such as Somalia in this sub-region, risk falling behind as donors focus on rapidly scaling up for impact, without adequately addressing health systems development issues for long-term sustainability. Dr. Rumeci also briefly discussed the role of UNICEF in malaria control in the sub-region, including hosting of the RBM Secretariat function of EARN by UNICEF's Eastern and Southern Africa Regional Office in Nairobi, Kenya. UNICEF supports integrated programming for child survival, including malaria, through existing systems, namely ANC, MCH clinics, Child Health Days, joint interventions with vaccination campaigns, etc. UNICEF is also active in leveraging resources for women and children through funding partners, such as GF, World Bank and the US President's Malaria Initiative for example. Dr. Rumeci urged all partners to work diligently to ensure that effective partnerships translate into saving the lives of women and children and closed his speech by inviting all participants to take the time to enjoy the hospitality of Zanzibar.

Dr James Banda of the RBM Secretariat, Geneva welcomed participants and conveyed the greetings of the RBM Executive Secretary, who was unable to attend the EARN Annual Review and Planning Meeting due to commitments in Geneva. James reflected on the birth of EARN in Mombasa in 2002 and highlighted the progress made since then, especially in relation to the broad and inclusive partnership that has developed. In terms of significant progress, James noted that all countries in the sub-region have changed to ACTs, and this deserves to be congratulated, as does the almost universal switch from conventional nets to

LLINs. In addition, huge achievements have been reached in relation to developing and implementing strategies for scaling up coverage, including, for example, the distribution of ITNs alongside measles, which has dramatically increased coverage of children under five, and represents a good example for other countries in the sub-region to consider. Other successes noted included resource mobilisation, and continuing evidence of impact, with proven reductions in child mortality in Eritrea and Tanzania, and also Zanzibar. It was acknowledged that the debate surrounding the introduction of IRS has continued in the sub-region and James hoped that recent global clarity on policy would assist national programmes to decide whether or not to implement the intervention based on considerations of feasibility, practicality and cost-effectiveness. Participants were, however, cautioned that much remains to be done, and noted that only 20% of GF grants are currently performing at A1 level. Despite this countries are continuing to appeal for more funds, but concerns have been raised regarding national capacities to absorb additional funds and use them effectively. Eight proposals from the sub-region were submitted to GF Round 6, but only two were successful. James urged participants to return home with clear strategies and objectives to ensure that funds received are utilised well and future proposals are successful. The final topic covered was the major change process currently on-going within RBM at global level, with a shift towards providing improved implementation support and programme harmonisation. Harmonisation of resources is seen as a priority for reducing the administrative burden on country programmes in relation to funding management. RBM will be conducting a series of missions from the global level to validate national programmes and gap analyses, as requested by country delegates at the recent meeting convened by the World Bank. March 2007 will also see the first ever donor harmonisation meeting on malaria, which will hopefully go a long way towards addressing country gaps. Participants were reminded that the RBM Partnership is now on the final lap on the road to 2010, and country partnerships need to ensure that they are able to report on whether or not success has been achieved. Three years is a perfect time period over which to implement and prove to the world that we know how to achieve progress. Key to the demonstration of success will be good baseline data. James stressed the importance of EARN to the RBM Partnership Board, which had endorsed its formation in March and had provided financial resources for the current meeting. EARN continues to represent a dynamic movement in the sub-region, facilitating the interchange of ideas between the country and global levels. James also stressed that the global partnership expects results from EARN and its members, both countries and sub-regional partners, and acknowledged that the best way to achieve results is to learn from each other's experiences. In respect of the targets set by the 2000 Abuja Summit, it is expected that significant progress will have been made towards those targets by the reporting date. The current EARN Annual Review and Planning Meeting is the last meeting before that important landmark. James acknowledged that sometimes it is difficult to ascertain whether or not we have reached our objectives and expressed his hope that the current meeting will come up with an evaluation and reporting plan that will convincingly demonstrate achievements.

The Principal Secretary of the Minister of Health and Social Welfare, Zanzibar introduced the Honourable Minister of Labour, Youth, Women and Children Development, Zanzibar and acting Minister of Health and Social Welfare – Ms Asha Abdalla

The Honourable Minister of Labour, Youth, Women and Children Development, Zanzibar[1], stated that it was an honour and a privilege be invited to officiate the opening of the Sixth Eastern Africa Roll Back Malaria Network (EARN) Review and Planning Meeting and took the opportunity to congratulate the Eastern Africa Roll Back Malaria Network (EARN) for the decision of choosing Zanzibar to convene this important gathering.

The Honourable Minister noted that malaria affects the majority of people in many Africa countries and exerts a major burden on the continent's socio-economic development

[1] Full text of the Honourable Minister's speech is included as Annex 1

processes, being responsible for up to 3 percent retardation in GDP growth annually in Africa. By its very nature the disease is also closely associated with poverty, affecting the most vulnerable in society, especially in rural areas. While acknowledging that malaria affects us all, the Honourable Minister noted that the problem is more serious among children under the age of five years and to women who are pregnant, and reminded participants that one child dies from malaria every 30 seconds.

The Honourable Minister described her pleasure in learning of the successes of EARN in establishing an effective mechanism for offering in a cost -effective manner, timely and quality malaria response services needed by countries in the Eastern Africa Sub-region. The principle of partnership on which EARN is established and the progress made in the sub-region towards genuine cohesiveness and adoption of common approaches was commended. The Honourable Minister concluded by paying tribute to all those involved in malaria control for their dedication and urged all colleagues to work diligently to save lives.


The Honourable Minister then requested all participants to spare the time to learn from the experience of Zanzibar in fighting malaria and encouraged them to enjoy the hospitality of the people of the famous historical spice islands.

Dr Tewolde Ghebremeksel, Malaria Programme Manager, Eritrea, gave a brief speech that focussed on the impact of malaria on the people and economies of Africa. Dr Tewolde acknowledged that EARN has become synonymous with progress in the sub-region and has proved that by working through effective partnerships and unity much can be achieved. Successes in malaria control are beginning to be realised in several countries, and not least in Zanzibar, where there is evidence of declining morbidity and mortality. Other areas of success have included antimalarial treatment policy change and the scaling up of ACTs, alongside increasing coverage with IRS and LLINs and progressive involvement of a broadening range of national and international partners. The emerging evidence of declines in morbidity and mortality in some countries, now needs to be replicated across the whole sub-region. Dr Tewolde closed by congratulating the sub-region's health ministries on creating and supporting an enabling environment for health services development, especially in relation to malaria. National, regional and global partners were thanked for their continuing support, and thanks were extended to Zanzibar for their hospitality in hosting the EARN meeting.

### *7.1.3 Logistical Arrangements and Review of Agenda – John Chimumbwa*

John briefly reviewed logistical arrangements, followed by a brief presentation of the meeting agenda[2].

### *7.1.4 Country Presentation – Zanzibar*

Dr Abdullah S. Ali presented on progress achieved in malaria control in Zanzibar during 2006, which included: availability of ACTs in all of Zanzibar's 146 public health facilities, alongside strengthened quality control/quality assurance (QC/QA) for diagnosis; implementation of IPT for pregnant women with coverage reaching 48%; large distributions of ITNs and re-treatment campaigns, resulting in coverage of under 5s with ITNs estimated to be in excess of 85%; implementation of an IRS campaign, and continued efforts in advocacy and communication.

[2] Annex 2

Evidence of the effectiveness of these interventions was presented in terms of a reduction in out-patient and in-patient cases of malaria, and reported malaria deaths. Evidence of a reduction in the incidence of severe disease was claimed, based on a reduction in the number of blood transfusions for children. Remaining challenges include the need for establishment of a comprehensive surveillance system, improved treatment-seeking behaviour, and improved diagnosis. The decreasing prevalence of malaria in Zanzibar may also have future implications in terms of an increasing risk of malaria outbreaks and epidemics.

### *7.1.5 Country Presentation – Eritrea*

Dr Tewolde reviewed the successes and challenges in malaria prevention and control, which included availability of tools for confirmation of diagnosis (microscopy or RDTs) at all health facilities; high levels of knowledge of malaria prevention methods; further increases in ITN distribution and continuing re-treatment of existing conventional nets, which has resulted in average figure for the proportion of children under 5 sleeping under an ITN reaching 71% and exceeding 85% in the three most malarious zones; IRS for more than 50,00 structures; and establishment of four additional sentinel sites for epidemic preparedness, bringing the total to 26; recruitment of an additional 265 Community Health Agents, and extensive refresher training activities; multi-channel, participatory malaria communication; and operational research on vector susceptibility. Eritrea is undergoing a switch in antimalarial treatment policy to AR+AQ, from CQ+SP, although CQ+SP will remain the treatment used by Community Health Agents. Evidence for success was obtained in terms of continuing reductions in the number of OPD and IPD cases attributable to malaria, decreasing malaria mortality among children. In spite of high rainfall during 2006, the number of malaria cases reported remained low. Remaining challenges include the low immunity of the population, leading to an increased tendency towards the development of severe malaria and increased risk of malaria epidemics; sustaining the achievements and successes obtained; combating complacency and relaxation among the population, MOH, Partners, etc; limited infrastructure; incentives for CHAs; and cross-border importation of malaria.

### *7.1.6 Country Presentation – Kenya*

Dr Ayub Manya presented on behalf of Kenya's division of Malaria Control. Kenya changed antimalarial treatment policy from SP to Artemether-Lumefantrine in 2004, and policy implementation commenced in 2006, with training of health staff and a communication campaign. The proportion of children sleeping under an ITN increased from 4% in 2001 to 24% in 2005, followed by further mass distributions in 2006 (1.7 million distributed free through the measles campaign, and a further 1.7 million distributed through a stand-alone net campaign. The proportion of pregnant women sleeping under an ITN also increased from around 5% in 2001 to around 25% by 2005. A Malaria Communication strategy is now in place, an implementation framework has been developed, and a communication campaign to support implementation of new treatment policy was launched in September 2006. Remaining challenges include re-treatment of existing conventional ITNs, low IPT coverage in many districts, lack of proficiency in implementing IRS, weak M&E and routine data flow and systems, and financial resource gaps. A significant challenge for the coming years will be how to get malaria treatment as close to home as possible, given that ACTs will not be available as over-the-counter medicines, in contrast with previously used antimalarials.

### *7.1.7 Country Presentation – Tanzania*

Dr. Sigsbert Mkude presented on behalf of the Tanzania NMCP. Progress achieved included a small increase in the proportion of children treated with an antimalarial within 24 hours of onset of symptoms (23% in 2001 vs 28% in 2005); adoption of artemether-lumefantrine as first line treatment policy, with roll-out planned to commence in December 2006; a rise in the proportion of under 5s sleeping under an ITN from 8% in 2001 to 23% in 2005, and an increase in the proportion of pregnant women sleeping under an ITN from 8% in 2001 to 23% in 2003; IPT1 coverage reached 78% in 2005 and IPT2 coverage reached 44%; 19/25 districts

are implementing a malaria epidemic early detection system. Some remaining challenges include: continued reliance on clinical diagnosis; lack of funding for RDTs; cost of ACTs; lack of long-term funding to support ITN scale-up; coverage of IPT2 remains low; no effective alternative to SP for IPTp; and logistical demands of IRS for epidemic prevention and control.

**Discussion**
Eritrea and Zanzibar were asked to describe what plans, if any, they have to undertake active surveillance and detection of cross-border importation of cases. Zanzibar acknowledged cross-border travel of infected individuals as an important challenge, especially given the large number of visitors attracted to the island, and confirmed that the issue is already under discussion, but no concrete plans have been made yet. Eritrea reported that it also considers cross-border transport of parasites an issue, but is unable to address it at present due to the current political situation in relation to its neighbouring countries.

Participants requested further clarification on the criteria used to select the relatively small number of villages that are protected by IRS in Eritrea. In response it was stated that villages are primarily selected based on epidemiology, with a focus on areas with the highest malaria risk. Most sprayed villages are in the most endemic zone, Gash Barka.

Zanzibar was asked which RDT they had selected and how that choice was made. The response was that ParaCheck was the RDT selected, and this was based on surveys to determine operational feasibility.

### *7.1.8 Country Presentation – Rwanda*

Corine Karema presented on the progress achieved and challenges faced by the Rwanda NMCP. Rwanda reported a reduction in the proportion of cases attributable to malaria, as well as reductions in mortality among children under the age of five years and the over 5 population. The new malaria treatment policy, which was launched countrywide in October 2006 includes artemether-lumefantrine as the 1st line. Implementation of an integrated measles campaign, combining ITNs, Vitamin A, and mebendazole had achieved 95% coverage of children under 5. Following national implementation of IPT, an estimated 63% of pregnant women received 2 doses of SP. Home-based Management of malaria has been extended to 12/21 health districts, and a process is on going to introduce artemether-lumefantrine in HBM. Monitoring of epidemic risk indicators is conducted in 10 sentinel sites, with 17 sites monitoring meteorological parameters. Key remaining challenges include: introducing ACTs for HBM in the community, leakage of subsidised ACTs into the private sector; and presence of artemisinin monotherapies on the market; uncertainty over which RDT to use following poor results obtained in surveys.

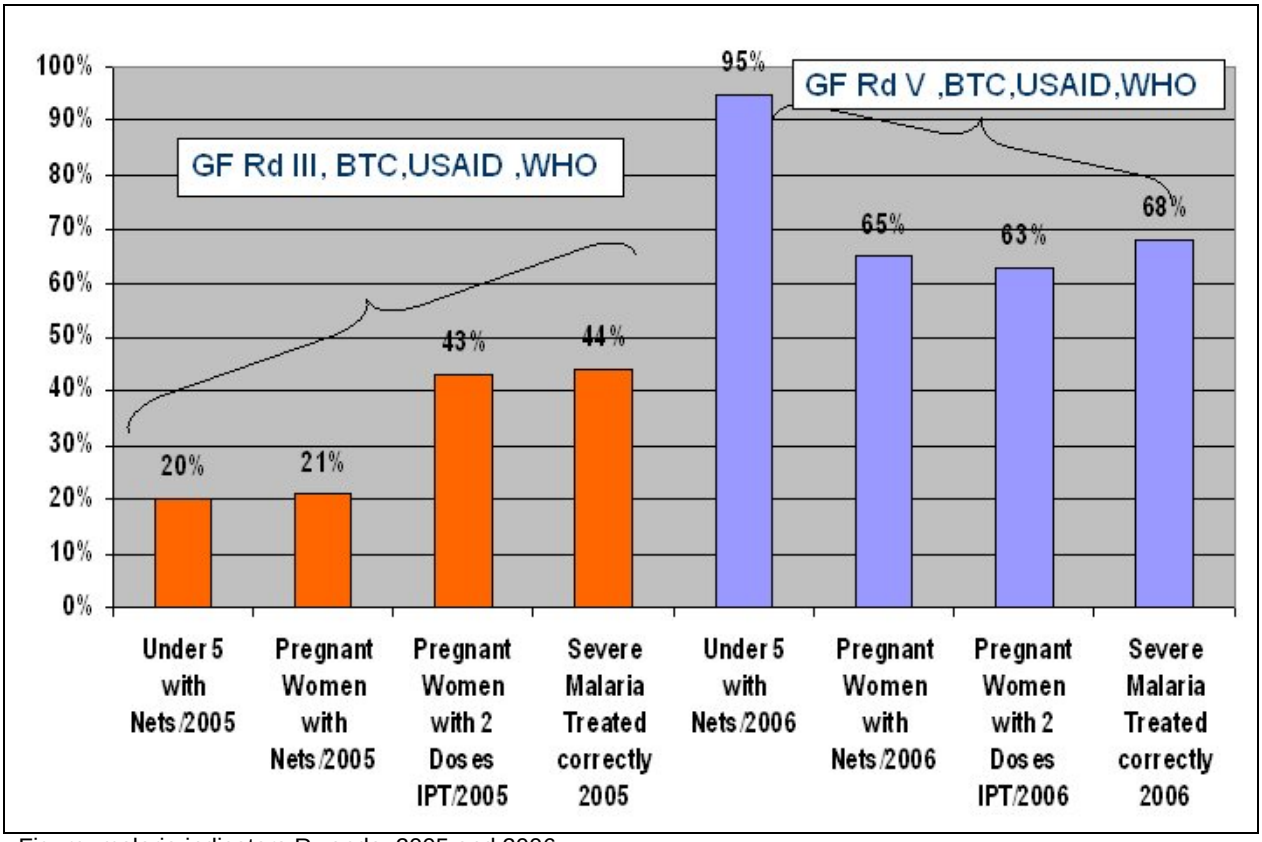

Figure: malaria indicators Rwanda, 2005 and 2006

### *7.1.9 Country Presentation – Uganda*

Peter Mbabazi Kwehangana presented on behalf of the Uganda NMCP. Achievements in vector control during 2005/06 included the launch of IRS in one of the epidemic prone districts (Kabale), protecting 96% of the targeted population; completion of an Environmental Impact Assessment on the use of DDT; and a public hearing on DDT use. In addition, a mass net re-treatment campaign was conducted in 32 districts in September 2006. Household coverage with at least one net improved from 25% - 31%. 1.8 million ITNs funded by GFATM are being imported for distribution by end of April 2007, raising coverage to 85% of the vulnerable population in the targeted sub-counties. As regards case management, the new ACT policy was successfully adopted, with all public health workers trained, and ACTs available at all Public and Private Not-For-Profit health units. A pilot implementation of ACTs for home based management of fever is underway in 4 districts, and roll-out of ACTs for community-based treatment is expected by June 2007. Strengthening of lab services, both microscopy and RDTs, is on-going. IPTp was provided in health facilities offering antenatal care services in all districts, and IPT2 coverage improved from 34% to 37% in 2005/6. The Malaria Communication strategy was updated to include new treatment policy and IRS, and communication materials were developed. Uganda also reported operationalisation of a "Three Ones" approach for RBM, with a consolidated work-plan developed. key remaining challenges include a continuing lack of appropriately qualified staff at peripheral levels; high attrition of community health workers; leakage of ACTs to the private sector; poor diagnostic services in health facilities; unpredictable funding for IRS; and unsuitability of some houses for ITNs.

### *7.1.10 Country Presentation – Ethiopia*

The Ethiopia NMCP's achievements and challenges were presented by Afework Hailemariam. Achievements have included an apparent reduction in the number of malaria cases reported,

from a peak in 2004/05. Trends in the proportional contribution of malaria to OPD and IPD cases and mortality showed considerable variation. Substantial reductions in the number of malaria epidemics reported were observed in 2006, compared with 2004 and 2005. Ethiopia's Health Sector Extension Programme, which aims at 100% access to health services, was briefly described in relation to the expansion of ACT availability and malaria diagnostic services, with 1.7 million RDTs and more than 6 million treatment doses of artemether-lumefantrine distributed to health facilities during 2006. As regards vector Control, more than 8 million ITNs were distributed, equating to 44% coverage, with a further 9.5 million ITNs procured and in the pipeline. An ITN utilization study reported use of ITNs the previous night by U5s of 93.3% in East Hararge, and 85.5% in Borena. IRS with 75% DDT was conducted for 1 million unit structures in 3,000 localities, protecting approximately 5 million people. A major reform of the HMIS is underway, and will include eight malaria indicators. In relation to communication, a Coalition Against Malaria in Ethiopia (CAME), which is an umbrella association of all NGOs, Civil Society organisations, and the private sector involved in malaria control. Some constraints and challenges noted include: the short shelf-life of ACTs and RDTs, with resulting difficulties in stock management; the unpredictability of malaria epidemics; a lack of adequate preparedness and response; the high cost of RDTs and ACTs and funding for long-term sustainability; under-developed infrastructure; the need to develop an effective system for replacement of aging LLINs; and severe shortages and high turn over of skilled human resources.

**Discussion**

Countries were requested to describe the strategies being used to achieve treatment close to communities. Rwanda reported that they had already undertaken a feasibility study on the use of ACT in the community in three sites. The districts selected for HBMF all have at least 60% malaria morbidity. Ethiopia reported that it had previously had a HBMF programme, and was now piloting the use of ACTs at community level to test if Extension Health Workers are able to reliably carry out diagnosis and treatment. A mid-term review of the pilot suggests that impact is being achieved in terms of reduced HF visits.

Uganda had reported in the presentation the number of houses that were fully sprayed or partially sprayed and further clarification was sought on what constitutes partial spraying. In response it was stated that partial spraying refers to all sleeping rooms, but not kitchens or food storage rooms, which were left unsprayed in order to avoid contaminating food.

Ethiopia was requested to describe some of the factors that they felt had contributed to the reported reduction in the number of epidemics suffered during 2006. The reduction was ascribed to a multiplicity of factors, including reductions in morbidity and mortality due to scaling-up of interventions, meteorological factors, and the introduction of artemether-lumefantrine.

The question as to how best to prevent leakage of free nets onto the market was also raised, given that this was a common challenge for several programmes. Uganda responded that during its recent mass campaign, a micro-planning exercise was conducted to register recipients by parish. During the campaign, receipt of nets was marked on ANC and immunization cards. In addition, packaging was removed from the nets just prior to distribution, which had the effect of reducing the resale price.

### *7.1.11 Country Presentation - Burundi*

Jérôme Ndaruhutse presented on behalf of the Burundi NMCP. Burundi continued to implement its new antimalarial treatment policy (Artemether + Amodiaquine), launched in February 2005, training 492 practitioners in case management, distributing microscopes and lab equipment to all health facilities and training 75 microscopists. Appropriate treatment of malaria in health facilities is estimated at 78%. Free distribution of ITNs to vulnerable groups was integrated with antenatal consultation and health facility delivery, and a joint ITN/measles

campaign was conducted on Africa Malaria Day. ITN coverage in 2006 was reported as 28% for both pregnant women and children under 5. IRS was conducted in the province of Ngozi, where 13,169 houses were sprayed. As regards malaria communication, a review of IEC materials was conducted with support from several partners. The major challenge faced by malaria control in Burundi is the need to secure long term funding for ACTs, following failure of the proposal to the GF 6th Round. Other challenges include: lack of a paediatric package and a fixed dose combination of AR+AQ; ensuring rational use of ACTs at remote health facilities; ACT logistics and stock management; high levels of resistance to SP potentially compromising IPTp; and long delivery lead times for ITNs.

### *7.1.12 Country Presentation – Somalia*

The central and southern Somalia, Puntland, and Somaliland presentation described recent attempts to better define the epidemiology of malaria in the country, which have included construction of maps based on distance to permanent water bodies (< 3km) and a Normalized Differential Vegetation Index (NDVI) of 0.3, as well as malariometric studies that showed a marked heterogeneity of malaria transmission risk. The heterogeneity of risk has important consequences for planning of control interventions. The use of ACTs (artemether-lumefantrine) was introduced in 2006, and complemented by the use of RDTs at all health centres to support confirmation of diagnosis in the over 5s. During 2006, 280,000 ITNs were delivered through health facilities to pregnant women and <5s and fixed outreach sites. A further 100,000 ITNs were delivered through community distributions. IPTp is available in all 95 MCHs in high risk areas, and has led to an increase in the proportion of pregnant women attending ANC and receiving two doses from <5% to 25%. Key challenges include: the difficult operating environment (political and security); a weak HIS, making it difficult to measure achievements; fractured society, with consequences for community cohesion and social mobilisation; low coverage of health care facilities; a lack of accurate population data and other baseline information; difficulties in convincing health workers of the reliability of RDTs; low quality of diagnosis; weak forecasting of anti-malarial requirements; and weak M&E.

### *7.1.13 Country Presentation – northern Sudan*

Khalid A. Elmarddi presented the achievements of, and challenges faced by, the national malaria control programme of northern Sudan. An ACT treatment policy was adopted in 2004 and these medicines are now widely available, along with new treatment guidelines, and training of health care providers. Two pilot projects for HMM have commenced and IPT is being implemented through ANC, and also by midwives, in all targeted areas. To date, approximately 480,000 LLINs have been distributed, achieving coverage >80% in one locality in 10 states. Epidemic prevention and control sentinel sites have been established and a National contingency plan for malaria epidemics has been developed. Some challenges and constraints faced by the programme include: inadequate coverage of ACTs and insufficient advocacy for their use; high levels of false positive slides; limited use of RDTs; resistance to DDT and malathion, and tolerance to pyrethroids detected; ITN culture remains weak and the re-treatment rate is very low; and weak M&E systems.

### *7.1.14 Country Presentation – southern Sudan*

The final presentation in the session described the achievements of and constraints experienced by the southern Sudan Malaria Control Programme. The recommended first line treatment for uncomplicated falciparum malaria is artesunate+amodiaquine, and use of RDTs is recommended at primary health care unit level, where every malaria case in those aged >5 years must be confirmed by either RDT or microscopy. Approximately 650,000 ITNs were distributed in 2006, using a multi-channel approach, comprising free distribution to targeted groups through health facilities and community based networks, and subsidised sales at community level. Key challenges include: a weak health system; poorly trained human resources; no earmarked budget for the programme; weak coordination of partners at different levels; and weak M&E constraining documentation of impact.

**Discussion**
The southern Sudan delegation was asked to comment on compliance with AR+AQ. The delegates acknowledged that this had not been easy. For example, at sentinel sites, during efficacy testing, children often spat out the medicine or vomited and the medicines had to be re-administered. Adults also did not like the combination. Mixing the medicine with sugar improved its palatability, but it was acknowledged that intensive awareness raising and BCC would be needed to counteract the negative perceptions.

Some discussions arose regarding the appropriateness of having two different ACTs in the treatment policies of northern and southern Sudan. The programmes' response was that this policy was adopted on the basis of WHO recommendations.

Burundi was queried in relation to reported sales of ITNs and the fact that the GF insists that all nets bought with its funding are distributed free of charge. In response it was stated that PSI does sell subsidised nets, but all nets bought from GF grants are distributed free of charge.

Country programmes were asked to describe the role of NGOs in the shift from emergency humanitarian assistance to development. Somalia responded that because the formal sector remains weak, NGOs are key partners and implementers of programmes, and are in fact GF sub-recipients (UNICEF is principal recipient). Southern Sudan responded that NGOs were the primary implementers during the war, and are still being relied upon during the transition towards development, with many services contracted out to NGOs

## *7.2 Day Two - Tuesday 21st November 2006*

### *7.2.1 EARN Regional Summary – Halima Mwenesi*

Halima gave a brief review of some of the highlights, trends, challenges, and key issues raised during the country presentations from Day One of the meeting. It was noted that all country programmes have up-to-date strategic plans and are moving towards developing comprehensive gap analyses. All have adopted ACTs and have increased ITN/LLIN coverage, while IPT is lagging somewhat behind, especially IPT2/IPT3. Strong in- country partnerships were a key feature in all countries and the overall conclusion was that all programmes are moving towards achieving the RBM/MDG targets, although the pace of progress differs among the countries. Common challenges identified included the poor performance of GF Round 6 proposals (only 2/8 successful), resulting in a lack of guaranteed sustained financing; the relatively slow pace of ACT roll-out; and ITN/LLIN coverage still below 50% in 4/11 programmes.

### *7.2.2 Recommendations from the ESAMC Meeting – Josephine Namboze*

Josephine presented highlights from the August 2006 Eastern and Southern Africa Malaria Control (ESAMC) Meeting. The ESAMC Meeting was the first joint meeting for the 15 malaria-endemic countries in the Eastern and Southern Africa region of WHO-AFRO, following the recent re-structuring of the WHO Inter-Country Support Teams.

Key issues and recommendations arising from the meeting are summarised in the following table

| Programme Area | Issues | Recommendations |
|---|---|---|
| Programme Management | • Staff shortages and high staff turnover;<br>• weaknesses in Procurement and Supply Management (PSM);<br>• poor management of and limited absorptive capacities for financial resources by NMCPs;<br>• inconsistent and unclear criteria used to approve proposals | • HR Strategic Plans<br>• Build national PSM capacity<br>• Standardisation of procedures for commodities procurement<br>• GF Technical Review Panel to provide more detail on reasons for rejecting proposals |
| Case Management | • Slow implementation of ACTs at community level and in HBMF programmes<br>• Need to strengthen laboratory diagnosis<br>• Weak capacity for monitoring ACT quality at port of entry and in market<br>• Identification of alternatives to SP for IPT<br>• Phasing out monotherapies<br>• Need to develop pharmacovigilance systems<br>• Improved ACT demand quantification & forecasting | • increase registration of ACT options<br>• generate data on pregnancy outcomes where SP used for IPT<br>• Expansion of lab facilities<br>• Phase-out plans for monotherapies<br>• Collaboration with drug regulatory authorities to strengthen capacity on medicines QC/QA<br>• Implement P/V systems<br>• strengthen forecasting / quantification of ACTs and tracking of commodity consumption<br>• Global subsidy for ACTs<br>• advocate for & facilitate manufacturers to develop new medicines for IPT |
| Vector Control | • Countries still reporting low coverage for IRS and ITNs<br>• No evidence on added value of using both IRS & ITNs)<br>• Inconsistent definition of IRS coverage<br>• IRS implementation not systematic<br>• Concerns over development of insecticide resistance<br>• Emphasis has been on ITN availability rather than correct use<br>• Procurement processes often delay ITN availability<br>• Lack of strong IEC component for ITNs<br>• Bypassing of community structures in ITN promotions | • Implementation of IRS with DDT should be done in accordance with Global Treaties<br>• Countries must commit to sustaining IRS if and when donor support runs out<br>• Regular monitoring of vector resistance<br>• Use of entomological indicators to assess intervention impact<br>• WHO to develop guidelines for measuring and reporting on IRS<br>• Strengthen Health Education generally and especially in linked programmes (e.g. ITN-EPI)<br>• Community preferences for ITNs taken into account |
| Emergency Preparedness & Response | • Much data collected, not all used<br>• Few post-epidemic assessments<br>• Epidemic thresholds not always defined / used at periphery<br>• Meteorological data not used to generate intra-country malaria forecasts<br>• Cross-border malaria transmission<br>• Establishment & management of emergency stocks for efficient response still limited | • Improved use of thresholds and data analysis and use at all levels<br>• Post-epidemic assessments<br>• Improved collaborations with departments of meteorology<br>• Cross-border collaboration<br>• WHO to design simple electronic tool for data entry<br>• WHO to facilitate engagement of sub-regional bodies to foster cross-border collaboration |
| M&E | • HMIS does not capture all required malaria indicators<br>• Malaria indicators are not standardised for routine monitoring<br>• Improved coverage of interventions has resulted in changing epidemiological patterns in some countries<br>• There is no standardization of IRS coverage indicators | • Include malaria indicators in HMIS<br>• Programmes should focus on evaluation of impact indicators<br>• Adoption of active surveillance system in low endemicity areas<br>• Representation of research institutions |

| | | |
|---|---|---|
| | • Monitoring of drug efficacy difficult where malaria burden reducing<br>• Poor representation of research institutions at key meetings | • WHO to provide standardised indicators for routine monitoring<br>• WHO to standardize IRS coverage indicators |
| Communication | • Still seen as a “one off” activity<br>• IEC not integrated with other programme activities<br>• Limited Community Involvement and participation<br>• Lack of Regional IEC strategic guidelines<br>• Lack of focal person for Advocacy IEC in some Countries<br>• No specific financial allocation to IEC activities<br>• Lack of M&E for IEC, with key defined indicators<br>• Lack of Malaria advocates at the country and sub-regional level.<br>• Lack of Program communication IEC | • Community involvement from the planning stages to facilitate buy-in.<br>• Recruitment of national malaria “ambassadors”<br>• Appoint focal malaria IEC persons at country level<br>• Mobilize financial resources for Malaria IEC from programme budgets and include IEC budget lines in all new proposals<br>• Develop regional guidelines for IEC |

### *7.2.3 RBM: the Change Process – James Banda*

James provided an update on key developments relating to the RBM Change Initiative. James reported that the case for change was initiated at the November 2005 meeting in Yaoundé, Cameroon, and was based on the following observations:

- Disconnect between original design and subsequent expectations of RBM
- Unclear ownership, accountability structure of Board, Partnership, and Secretariat
- Lack of clarity and agreement on Partnerships' basic functions
- Recognition that endemic countries and vulnerable populations are primary change drivers

An early outcome of the change process has been a new level of engagement and commitment to RBM by the RBM Board, evidenced by a decision to work together on four critical barriers to malaria control, namely commodities and supply chain management; country-level gap analyses; harmonising donor activity at country-level; adoption of a single, streamlined approach to measuring resources and outcomes.

Key decisions in relation to procurement and supply chain management included:

- Approval for the formation of a working group on PSM. Early deliverables will include: definition of Partnership and Secretariat structure in PSM; roles and responsibilities of Partnership and Secretariat; functioning modalities
- Agreement to launch a taskforce (Private Sector, World Bank and UNF to be added) to meet in November as forerunner to a working group on PSM
- Endorsement of the continuation of the "status quo" for the staffing of the RBM Secretariat until further definition can be provided by the working group

Key decisions in relation to country partnerships included:

- Approval of a series of country consultations (initially 7-10 countries) to validate existing strategic and operational plans and gap analyses, to be conducted by end February 2007
- Approval for the convening of a high-level meeting of key donors in March 2007, to match country-identified needs, as supported by performance data
- Approval of the composition (Membership to include: WHO, UNICEF, World Bank, UNDP, GFATM, Private Sector, UNF, PMI, NGO constituency, MACEPA and 3 endemic country constituency board members from Africa) and program of work for a harmonisation Working Group to oversee execution of the gap analysis (and gap-filling) process. The harmonisation WG will have particular relevance to EARN as it will focus on implementation and will support gap analyses conducted by EARN.

Decisions were also reached in the following areas: advocacy, governance, and the workplanning and budgeting process for Partnership bodies. Decisions on RBM governance included: approval for formation of a new, permanent Executive Committee; approval for the formalisation of Board member selection and constituency communication processes; agreement on the need to define Working Groups' purpose, role and outputs; agreement to articulate roles, responsibilities and decision rights of RBM bodies.

### *7.2.4 EARN Progress 2006 – John Chimumbwa*

John Chimumbwa then updated participants on progress in the EARN during the year.
key areas of focus for EARN during 2006 included: support to countries for resource mobilization; improving the EARN coordination mechanism and constituency coordination mechanisms; support to mainstreaming malaria in health systems development; commodities and logistic management support; human resource and institutional development; and inter-country partnership coordination support. In relation to resource mobilisation, two country programmes (southern Sudan and Somalia) received intensive support from EARN members in GF proposal preparation for Round 6 and were ultimately successful. Six other countries

submitted proposals, but none of these was successful. Three of the twelve EARN member countries have been selected to participate in the first two rounds of the US President's Malaria Initiative (PMI), and two were selected for participation in the World Bank Malaria Booster Program.

Specific outputs from the EARN during 2006 included:

- EARN Annual Joint Work Plan (70% of tasks completed, remaining 30% deferred primarily due to resource constraints)
- Country by country malaria situation analysis & update of strategic plans
- Production and dissemination of EARN Resource Packs in key programmatic areas
- Quarterly and Annual meeting reports

**Discussion**

A question was raised regarding the timeframe attached to the RBM change process, and in particular how it will affect countries. In response, James informed participants that the proposal to undertake the validation process arose from a joint submission by country delegates to the World Bank meeting held in Dakar in September 2006 requesting that their national plans and previously conducted gap analyses are respected by donors and the global community. This proposal was accepted by the World Bank and resulted in plans to conduct the validation exercise in January/February 2007. Validated plans and gap analyses will then be submitted to a donor harmonisation meeting convened for March 2007, again at the request of country delegates. In terms of the timetable for countries, validation missions will be conducted in the first set of 7-10 countries in January 2007. These countries will receive a response to their requests for funding of resource gaps following the March 2007 donor harmonisation meeting.

In response to the statement contained in the RBM change process presentation that the prime movers for RBM should be the endemic countries and their at-risk populations, it was noted that in reality the prime movers continue to be the funding partners. The response was that while this was perhaps still largely true, finances are now available to enable countries to plan for need, in contrast to the previous situation, where funding was always severely restricted, and this represents a huge advance for malaria programming. It was proposed that in order to be successful, the RBM Partnership needs to be jointly driven by endemic countries and funding partners.

Clarification on the process for selecting RBM Board members and especially the endemic country representatives was requested. In response, participants were informed that under the previous system, endemic countries were elected at the WHO Regional Committee meetings. Under the new system, regional bodies such as SADC have proposed that they will nominate country representatives to the RBM Board.

Following the presentation on ESAMC, which included the IRS/ITN debate as one of the issues highlighted, there was some discussion on which intervention is better and whether or not both interventions should be implemented simultaneously. Participants were informed that both ITNs and IRS appear to be equally effective under all epidemiological situations, however, no information is currently available as to whether combination of the two results in additional impact beyond that achieved through high coverage of either intervention alone. Further discussion on vector control was deferred to the Tuesday afternoon session on malaria epidemiology

The outcomes of the ESAMC meeting highlighted the fact that IEC is not currently conducted in a sufficiently strategic and integrated manner, with the result that in some case ITNs and/or ACTs are not being used correctly by the end-users. The absence of a strategic approach to IEC was at least partially ascribed to the lack of appropriately trained and experienced staff within NMCPs. In addition, it was noted that much confusion remains over the different

terminology in use in relation to communication, e.g. IEC/BCC/COMBI, etc., and this is not helping the situation. Participants were urged to take communication very seriously and to appoint staff members with the appropriate skills and experience to develop strategic and integrated approaches in order to ensure the correct and effective use of interventions.

One participant commented that the sixth EARN meeting represented a landmark in terms of generating a clear picture and understanding of the situation at country level, in relation to plans, progress and remaining gaps. Participants were also commended on their honesty in presenting the true situation in their countries.

One participant noted that there was some evidence that even where high coverage of interventions is achieved, those interventions are not always being used correctly. It was emphasised that significant resources for change already exist at community level in the form of CBOs and FBOs and these resources need to be better utilised in communication, social mobilisation and advocacy efforts in order to ensure that ITNs and antimalarials are properly used.

### *7.2.5 Overview on New Prevention Products – Birkinesh Ameneshewa*

Birkinesh presented on some of the new and emerging technologies for malaria prevention. Participants were informed that eight new LLIN technologies are currently under WHOPES evaluation, with a predicted timeline for WHO recommendation, as follows: December 2006 - 1 product; June 2007 - 4 products; December 2007 - 3 products. Addition of these products is predicted to increase production capacity of LLINs to around 10 million units per month by December 2007, compared with current monthly production capacity of around 5 million units. In addition to LLINs, two long-lasting treatment kits are also under WHOPES evaluation, namely K-OTAB 123, which is expected to receive recommendation in December 2006, and is already being used in several countries; and a second product, for which recommendation is expected in December 2007. Other LLIN-type technologies being developed or tested include: plastic sheeting and treated blankets for refugee settings and complex emergencies; treated hammocks for prevention of forest malaria; and window screens and curtains. Alongside these LLIN technologies, improved formulations of insecticides for IRS, with increased residual life, are under development, as are longer-lasting larvicides for larval control.

Vector resistance was identified as a significant potential threat to vector control interventions, although the immediate threat to ITNs is lower than that to IRS, as a result of ITNs representing both a personal protection method, as well as a community protection method, in contrast to IRS. Increasing resistance among nuisance insects may also threaten IRS acceptability to end-users. It was noted that insecticide resistance is often a localised problem, and detection of resistance in one geographical area does not mean that it is present in an adjacent area. Solutions to the threats posed by insecticide resistance were discussed and included both short- and longer-term solutions:

- Short term solutions
    - Use of alternative insecticides to restore efficacy against resistant vectors (e.g. non-pyrethroids for ITNs)
    - Combining insecticides from two groups with different modes of action to manage resistance (ITNs and IRS)
    - Rotating insecticides to manage resistance (IRS)
- Longer term solution
    - developing new insecticides (alternative to pyrethroids for ITNs)

The way forward in relation to fostering the development of innovative tools and technologies was presented as needing to include identification of needs at field level; fostering private-public partnerships (consortiums) and joining forces (industry, academia, WHO); enhancing WHOPES capacity for rapid, rigorous and independent testing; strengthening capacity of

National Programmes to optimally use newly developed tools and interventions; and supporting programmes to make scientific evidence-based decisions.

### *7.2.6 Experience of Testing New Technologies – Albert Kilian*

Albert presented on the results of some recent trials of new technologies for prevention. On-going testing work in Africa includes:

| | |
|---|---|
| LLIN | PermaNet , DAWA-Plus, Interceptor (Uganda) |
| LLI-K | KO-Tab 123 (Uganda 2x, Mozambique) |
| | ICON-MAXX (Mozambique… in preparation) |
| Wall linings | Feasibility, acceptability, longevity, impact (Zambia, planned) |
| Kikoys | Feasibility, acceptability, longevity, impact (Uganda, planned) |
| IRS | ICON CS on various surfaces at 6, 12, 18 months (Uganda) |

Results on testing of different methods of insecticide application to conventional nets on the homogeneity of insecticide distribution across the net surface have revealed that “in-the-bag” and mass warehouse dipping under optimal conditions can produce results as good as those achieved by individual or factory dipping. However, under the conditions of a mass re-treatment campaign, high variability in the distribution of insecticide on the net was observed.

Tests on longevity of insecticides on nets has revealed that in the field the washing frequency is not the only and probably not the most important factor for determining the decline in insecticide performance. 90% of Permanet 2.0 nets retained optimal effectiveness after 36 months of use.

Using a “mean hole index” measure of physical condition of a net, it was concluded that polyester nets begin to physically fall apart after 3 years use.

**Discussion**
The question was raised in relation to the stage in the development of insecticide resistance at which a programmatic decision must be made on whether or not to change insecticides. The response given was that the best strategy is to implement alternatives in order to delay the development of resistance, rather than waiting until high levels of resistance are reported. WHO Guidelines on recommended actions at various levels of insecticide resistance have been published. It was acknowledged that in many countries, the capacity to manage vector resistance is poor, and WHO-AFRO is currently working on linking entomology expertise present in research institutions to NMCPs. WHO is also planning to develop guidelines on the management and delay of insecticide resistance.

### *7.2.7 Overview of New Antimalarial Medicines – Peter Olumese*

Peter updated participants on the relatively limited number of new antimalarial medicines currently under development. Imminent developments include fixed dose combinations of artesunate+amodiaquine and artesunate+mefloquine. Products already in the regulatory phase of development include paediatric artemether-lumefantrine, chlorproguanil-dapsone+artesunate, dihydroartemisinin-piperaquine, and pyronaridine+artesunate. Dihydroartemisinin-piperaquine is already available on the market in some countries as Artekin™, and while early clinical trials showed eradication of the malarial parasite in 95-100 percent of patients tested, the amounts of impurity in the batches tested ranged from 1.5% to 5%, which far exceeds the permitted maximum impurity levels of 0.05%. In addition, questions have been raised as to whether dihydroartemisinin is the best option for ACTs. Potential innovative areas for antimalarial development include:

- Medicines against gametocytes to reduce malaria transmission
- Preventive medicines for intermittent treatment

- Medicines with long half-life or formulated as slow-release implants directed against pre-erythrocytic stages

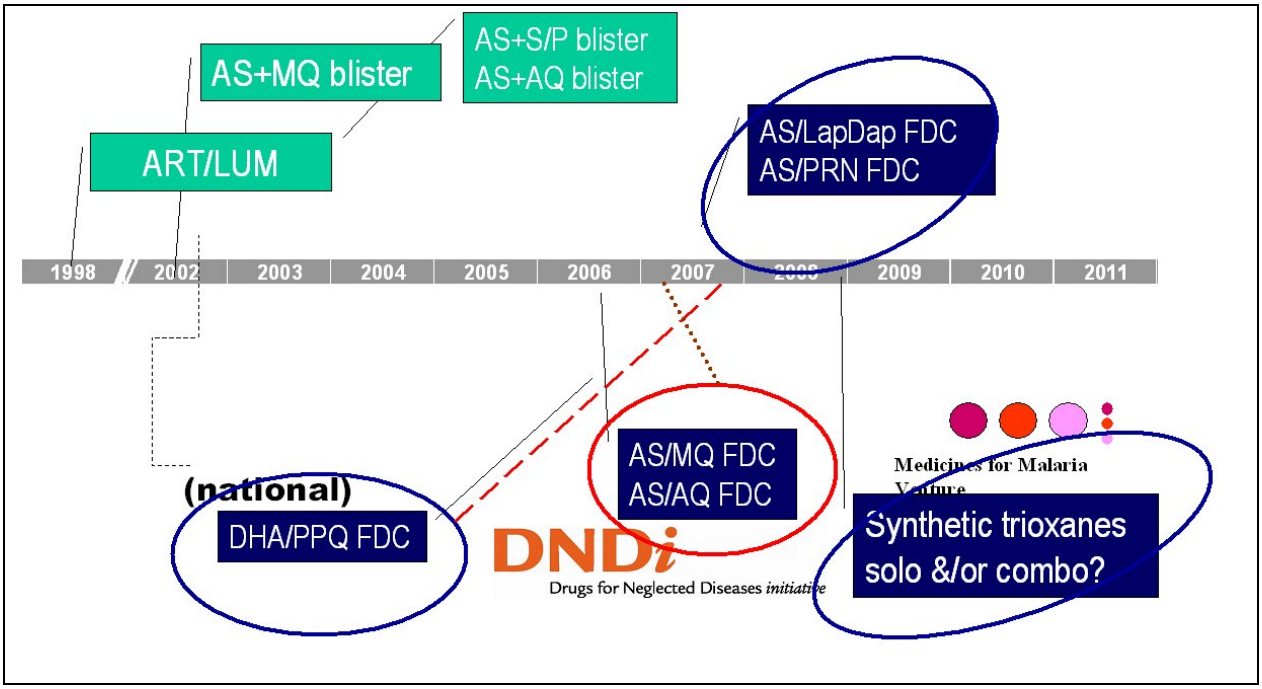


Figure: timeline for development of new antimalarial medicines

Future strategies for combating the development and spread of parasite resistance include:

- Combining more than two medicines – examples in other diseases
- Transmission blocking components in the drugs
- New classes of unrelated antimalarial compounds and strategic combinations
- Greater understanding of the mechanisms of resistance leading to more strategic combinations based on mode of action of partner drugs, unrelated compounds

**Discussion**

The potential of combining ACTs with an RDT in a single package as a mechanism for strengthening diagnostic confirmation and improving the judicious use of ACTs was proposed, and participants were informed that this approach had been tried in Viet Nam, but was found to be impractical as it raised the problem of what to do with the co-packaged RDT in the event of a negative test. The priority for ensuring rational use of antimalarials was reaffirmed as being to support countries to move to definitive diagnosis, and reducing the incidence of treatment even when tests results are negative.

The Tanzania programme reported that its recently published new diagnosis and treatment guidelines include a caution against the use of artemether-lumefantrine in children aged <2m, and clarity on the correctness of this recommendation was sought. In response, Peter informed participants that no evidence on safety and efficacy in children <5kg was available for ANY antimalarial, including ACTs. The correct recommendation should be to refer the child to a specialist facility, as the likelihood of the child being infected with malaria at ages under 2 months is relatively low. If malaria is confirmed however, then the only option is to treat with ACT.

An update on the global production capacity for ACTs was also requested and participants were informed that currently there is ample production capacity, and at least one manufacturer for each product has GMP. In fact it was noted that demand forecasts for 2006 were 110 m doses, but up to September 2006, orders for only 56m had been received, suggesting weaknesses in national forecasting capacity. Mismatches in demand and supply may cause

problems in future if manufacturers scale down *Artemisia annua* cultivation based on lower than expected orders, only to be faced with increased demand.

The point was made that much effort had been expended on changing national antimalarial treatment policies in the sub-region, but these efforts were often being undermined by the regulation by national authorities of multiple alternatives within the private sector. This was acknowledged as a problem, but ultimately what medicines are registered in a country is the responsibility of national authorities and WHO and other organisations can only advise on best practices.

### *7.2.8 Country Experiences – Procurement and Supply Master Plans – Ethiopia and Burundi*

Ethiopia presented on its plans to strengthen procurement and supply management for health, through the creation of a Health Commodities Supply System (HCSS). The need for a new HCSS was stimulated in part by the procurement and supply needs associated with GF funding for the procurement and distribution of 20 million ITNs, 8.6 million treatment doses of Coartem™ and 9.7 million RDTs in 2006. Previously procurement of commodities for GF Round 2 had been handled by the Federal Ministry of Health and the national Procurement Administration and Supply System (FMOH/PASS), but due to the long bidding and evaluation period, lack of capacity, and resulting delays, UNICEF was subsequently contracted to provide these services. National capacity strengthening through the HCSS will enable it to assume responsibility for PSM for the Health Service Extension Program (HSEP), and the accelerated expansion of primary health care facilities through the Essential Health Service Package (EHSP). The following principles underlie the HCSS: a focus on vital and essential health commodities, based on the EHSP; direct product delivery to hospitals, health centres and woredas; procurement of essential items using a Revolving Drug Fund and framework contracting; emphasis on pooled procurement and a reduced quantity of local tendering. Health facilities and woredas will be able to order directly from local hub warehouses using budget funds (distribution costs of commodities will be included in product price). A reliable information system will be developed to support annual quantification of need and other decision-making functions. Reliable supportive supervision systems for HCSS will be used to improve supply management, and the in-country supply chain will be shortened and consolidated as far as possible.

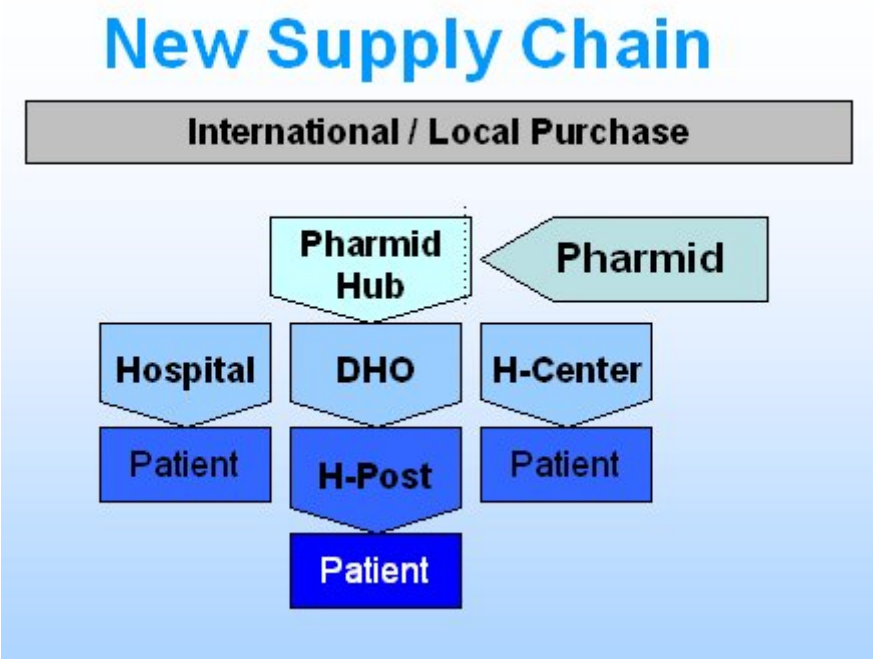


Figure: schematic representation of HCSS supply chain, Ethiopia

Total estimated costs for establishment of the HCSS are US$ 122 million, including a 10% contingency. Approximately US$ 61.5 million will be allocated to distribution and storage, and US$ 38.1 million to establishment of the "new Pharmid", the national pharmaceutical supply institution.

Predicted consequences of the HCSS for malaria prevention and control are as follows: the new Pharmid will be responsible for procurement, logistics and supply of malaria commodities direct to district health offices and then to health extension workers. The length of the supply chain will be reduced, and order placement will be bottom-up, initiated by health facilities, as opposed to the previous top-down approach. This should all result in a more flexible system that allows transfer of ACTs/RDTs between hubs to facilitate response to malaria epidemics, while also reducing loss due to expiry of medicines.

Burundi then briefly presented on its procurement and supply chain for GF-related procurement.

### *7.2.9 Panel Discussion – Procurement and Supply Management Issues – GFATM, UNICEF Supply Division, World Bank*

The country presentations of Ethiopia and Burundi were then followed by a panel discussion on PSM issues.

**Global Fund**
In relation to PSM, the Global Fund representative on the panel updated participants on three new developments, namely UNITAID, voluntary pooled procurement, and the formation of a PSM Working Group for RBM.

UNITAID (not a UN agency) is a new funding mechanism that is based on airline taxes and is expected to generate around US$ 300million per year, once fully operational. The focus of UNITAID is on procurement of medicines for the treatment of AIDS, TB, and malaria. Funds raised will be managed by GF/UNICEF/CHAI and allocated to countries. The first US$ 50 million raised will be managed by GF/UNICEF and will be used for ACT scale-up. No funds are currently available for operational costs associated with distribution of commodities, and neither are funds currently available for ITN procurement.

As regards voluntary pooled procurement, the GF Board is expected to give its decision on this mechanism by March 2007, with the expectation that if approved, it would become operational by late 2007. Possible models for pooled procurement that are under consideration include: GAVI, the Global Drug Facility, and UNICEF Supply Divisions' pooled procurement arrangements for vaccines, etc.

RBM's newly-convened PSM Working Group will focus on demand forecasting, procurement, and supply management and logistics issues and the first formal meeting is scheduled for mid-February 2007. A preliminary meeting was convened on the evening of 21 November 2006, for participants at the EARN meeting to register their interest.

**World Bank**
Many countries currently have World Bank credits for health and/or malaria programming, and these credits become an integral component of the national budget. To qualify for World Bank credits, countries must be able to demonstrate that they use efficient and competitive procurement processes. The panellist acknowledged that while resources for malaria are flowing to countries, procurement remains a problem, and also acknowledged that current World Bank procurement processes tend to be slow and not really amenable to supporting rapid scale-up. For this reason the World Bank is developing a strong interest in voluntary pooled procurement as an alternative mechanism to support countries, rather than for countries to receive a transfer of funds and then undertake their own procurement. The World

Bank is a minority financier of malaria commodities procurement in many countries, when compared with either the PMI or the GF, and so the World Bank is looking at utilising the already established systems of these other organisations to undertake procurement. In addition, the World Bank is working on identifying mechanisms for improving procurement processes through developing closer links with UNICEF, however, this type of collaboration does raise some legal implications that would need to be resolved.

Regarding the proposed Global Subsidy for antimalarial medicines, participants were informed that the vision of economists is that if ACTs are made so inexpensive to countries and end-users, this would be sufficient to achieve rapid scale-up of ACT availability, while simultaneously forcing monotherapies off of the market, by undercutting the prices of those monotherapies. Economists also envision that ACTs should be available everywhere that chloroquine was, and at a similarly low price. However, the economists' vision raises several technical and operational issues that are applicable to ACTs, but less important for chloroquine, including: compliance, the short shelf-life of ACTs, and the requirement for careful monitoring of expiration dates, reluctance of national authorities to sanction over-the-counter use of ACTs, how will universal availability reconcile with current moves towards more definitive diagnosis to improve rational use and delay development of resistance? The World Bank has been assigned the role of determining how best this vision could be realised.

**UNICEF**

The UNICEF panellist acknowledged that the increased availability of global resources to support the procurement and distribution of unprecedented volumes of malaria prevention and treatment commodities had highlighted significant problems in global and national procurement and supply management systems, specifically lengthy procurement processes, long delivery lead times, poor logistic capacity for in-country distribution, and slow distribution and release of funds for commodities procurement. In relation to long delivery lead times, participants were informed that manufacturers had tremendously increased their production capacity for LLINs in recent months, and countries were now able to purchase very large quantities. If non-standard net sizes and/or colours are required, then this can create delays as it increases production times. Participants were also reminded that most LLIN manufacturing is undertaken in Asia, with only one production facility in Africa, and the location of manufacturing facilities immediately imposes a time constraint of a minimum of 2 months for delivery by sea. This needs to be added to a production time for large orders of between 2-3 months, and an additional period for in-country distribution when estimating the delivery lead time for new orders, highlighting the need for accurate order planning by country programmes. In this regard, UNICEF has supported a major exercise in forecasting to ensure better quantification of demand, and there are two main reasons for this. One is that disbursement of funds takes time, and the second is that accurate forecasts facilitate production planning and will result in shorter lead times. UNICEF Supply Division is also stockpiling standard sizes and colours of LLINs at warehouses, to be made available to countries at short notice in the event of emergencies. Despite the combined efforts of manufacturers, funding bodies, UNICEF and other procurement agents, it was acknowledged that procurement processes are lengthy as the tendering process cannot be avoided and is time-consuming. In order to avoid some of the delays in tendering, donors do allow country programmes to exercise the option to purchase commodities through existing and pre-qualified procurement agencies, such as UNICEF, UNDP, etc., agencies that have already undertaken the tendering process and have negotiated agreements with manufacturers. However, whereas partners can provide significant support for PSM in the short-term, strengthening of national capacity should be a priority in the medium- to long-term, and the interesting developments currently underway in Ethiopia with regard to creation of a HCSS were cited.

Participants were informed that in relation to the new products under WHOPES evaluation, described in an earlier presentation, UNICEF Supply Division is already in contact with the

manufacturers in order to ensure that procurement contracts can be implemented as soon as possible after WHO recommendation is given.

**Discussion**
Discussions following the panel presentations focused on the need to look at national capacity development as the primary means of providing long-term solutions to PSM issues, as opposed to the current focus of donors and others on achieving short-term results in scaling-up availability of prevention and treatment. The GF representative stated that the GF is open to advice on approaches to strengthening health systems, and stated that a facility for health systems strengthening had been included in Round 5, but was discontinued because so few applications for funding were received.

The need for improved PSM for all health commodities, not just those of relevance to malaria, was also stressed. Attention was also drawn to the need to include all related costs, such as management information systems, operational costs, logistics, stock management, etc. in a broader definition of commodity costs, as these associated costs can exceed the cost of the physical commodities themselves.

A question was raised as to how "voluntary" any voluntary pooled procurement process could realistically be, as presumably the rationale for pooled procurement is to obtain better prices, prioritisation of orders, or other benefits from suppliers for those participating in the pooled procurement process, as opposed to those not participating. Participants were informed that the GF is aware of the issues surrounding pooled procurement and would continue to review the mechanisms and consequences and will submit findings to the GF Board.

### *7.2.10 Introduction to epidemiology and Malaria Burden – James Tibenderana*

James presented on key aspects of malaria epidemiology, the pattern of malaria transmission intensity and its consequences for selection of appropriate interventions, and estimates of the burden of malaria. An interesting table depicting a suggested classification of the appropriateness of different interventions according to malaria endemicity was presented (see below), in which effective treatment is regarded as the most appropriate intervention under all intensities of transmission.

*Table: proposed suitability of malaria interventions according to malaria endemicity (Source: R.F. Snow, KEMRI, Kenya)*

| | Endemicity of malaria<br>Parasite Rate in Children Aged 2-9 years | | | | |
|---|---|---|---|---|---|
| | Unstable<br>~0 | Hypo-endemic<br><0.1 | Meso-endemic<br>0.11-0.50 | Hyper-endemic<br>0.51-0.75 | Holo-endemic<br>>0.75 |
| Malaria Early Warning Systems | +++++ | +++ | ++ | | |
| Larviciding & biological control | ++++ | +++ | ++ | | |
| Indoor Residual house-spraying | +++++ | ++++ | +++ | | |
| Insecticide-treated nets | | + | ++++ | +++++ | +++++ |
| Targeted Mass Drug Administration | ++++ | +++ | ++ | | |
| Intermittent Preventive Treatment infants | | | ++ | +++ | ++++ |
| Intermittent Preventive Treatment children | | | + | ++ | +++ |
| Intermittent Preventive Treatment pregnant women | | ++ | +++ | ++++ | +++++ |
| IMCI with diagnostics | +++++ | ++++ | +++ | | |
| IMCI without | | | ++++ | +++++ | +++++ |

| | | | | | |
|---|---|---|---|---|---|
| diagnostics | | | | | |
| ACT treatment | ++++++ | ++++++ | ++++++ | ++++++ | ++++++ |

The use of uniform and reliable estimates of the malaria burden in reporting progress towards Abuja and MDG targets was emphasised.

**Discussion**

Much of the discussion following the presentation on malaria epidemiology, focused on the assertion that case management alone could reduce malaria transmission under conditions of holoendemic malaria transmission. The question was raised as to how case management alone can reduce transmission where individuals receive many hundreds of infective bites and become rapidly re-infected following treatment. The response was that the model described was used to illustrate the point that interventions to reduce transmission have to be very effective before they can reduce clinical burden, and to that end, effective treatment has the biggest impact.

A question was also raised as to whether or not all-cause U5 mortality is a useful indicator for measuring the impact of malaria control in hypoendemic and mesoendemic transmission settings. The response was that in these situations, malaria-attributable mortality is probably a better measure than all-cause mortality.

The possible influence of the presence of several different parasite strains on the basic reproduction rate was queried, and the response given was that influence would probably be felt through the variable *b*, which describes the probability of successful infection, assuming that the different strains differed in their infectiveness and survival ability.

### *7.2.11 Indoor Residual Spraying - Birkinesh Ameneshewa*

Birkinesh discussed the relative merits and compared and contrasted the two most widely used vector control interventions: ITNs and IRS. Available evidence on efficacy and effectiveness supports the conclusion that both interventions can be implemented under all malaria epidemiological settings, ranging from epidemic-prone to endemic. There is currently no documented information whether or not there is any added value to be gained from implementing both interventions at scale at the same time and in the same place. The principles of IRS, and the historical context of its use were also described. IRS remains a valuable intervention in malaria control providing that a high percentage of the structures in an operational area have adequate sprayable surfaces, the majority of the vector population is endophilic, i.e. rests indoors, the vector is susceptible to the insecticide in use, and a high proportion (≥80%) of targeted structures are sprayed.

This was followed by a consideration of the use of DDT, which has been a WHO recommended insecticide for IRS for more than half a century, and contrary to popular belief has never been banned from public health use. WHO's position on the use of DDT for IRS is summarised below:

- DDT can be used for IRS, provided that stringent measures are taken to avoid its misuse and leakage outside the public health system
- DDT is used only/strictly for Indoor Residual Spraying
- A country that decides to use DDT for disease control is required to notify WHO (Secretariat of the Stockholm Convention) and UNEP
- Every 3 years, each country that uses DDT is required to provide detailed information on the amount of DDT used, the conditions under which it is being used, and how such use relates to the country's disease control strategy etc
- Countries using DDT also need to develop and establish appropriate regulatory mechanisms

The conclusions reached were that:

- IRS and ITNs are effective vector control interventions in malaria control under all epidemiological settings. The choice in the application of one or the other is a matter of feasibility, not an issue of efficacy
- Both interventions are under utilized in Africa
- NMCPs should be supported to in scaling up of effective vector control interventions where applicable and feasible
- Cost of vector control need to be seen in the light of:
    - The loss of lives due to malaria
    - Cost of malaria case management
- Both require national commitment
- The use of DDT for IRS is ultimately a country decision

### *7.2.12 Pros and Cons of IRS in different epidemiological and implementation settings – Albert Kilian*

Albert then presented on some of the operational considerations that impinge on the use of IRS in Africa. While IRS is known to be effective in highly endemic areas, it tends to be more successful where *Anopheles funestus* is the main vector. In addition, there has been some evidence of increasing exophily with *Anopheles gambiae* s.s. in Nigeria and Togo subsequent to IRS application. IRS has not proved very successful in dry savannah areas, where success was only achieved when implemented in combination with mass treatment. Although a considerable degree of control was achieved in trials of IRS in the 1950s and 1960s, under no circumstances was complete interruption of transmission achieved in high transmission areas, neither in dry savannah nor in forest areas, and this has the consequence that interventions must continue “indefinitely” in order to prevent malaria rebounding. A distinct advantage of IRS is the rapid onset of impact if it is done well and in time. A clear disadvantage is the rapid re-occurrence of malaria in highly endemic areas if IRS is discontinued, with a danger of epidemics in certain situations. Operational issues that have limited the application of IRS in many countries in sub-Saharan Africa include: low or non-existent national capacity and the time required to build such capacity; resistance/refusal of the population to have their house sprayed; sustainability of the required long-term funding; and leakage of insecticides. Further considerations in relation to the choice between IRS or ITNs were presented, including:

- Will net use continue under an IRS programme or will net availability and net use rapidly decrease?
- Are large-scale IRS and LLIN programmes equally cost-effective?

The conclusion was that high quality IRS should be supported where it is feasible or politically unavoidable, but there is a need to concentrate on areas where IRS works best, to ensure sufficient capacity before scaling up, to obtain well documented experience in high transmission areas; to keep an open mind regarding innovative mixes of methods and their evaluation. Support to ITN/LLIN programmes should continue, especially where high levels of coverage and a user culture have already been achieved.

**Discussion**

The Eritrea delegation related some of their experiences in the implementation of IRS, which largely concurred with the preceding presentations. Eritrea acknowledged that there are many challenges to the successful implementation of IRS, and despite being a major component of national vector control activities for many years, IRS is still only used in Eritrea on a limited scale. It was also reported that in areas with high ITN use, people tend not to want their houses sprayed, as they now have alternatives, which they perceive as less inconvenient or intrusive. It was acknowledged that villages or communities far from health facilities or other ITN distribution centres would potentially benefit most from IRS. It was also confirmed that around 50% of the vector population in Eritrea now rests outdoors, and therefore not amenable to control by IRS. The continued support of WHO for IRS over many years in several countries, including Eritrea, was acknowledged.

A question regarding the number of nights a person must sleep under a net in order to benefit from its personal protection was raised. In response it was stated that no data were available on the proportion of nights sleeping under a net required to provide protection, but it was probably less than 100%. The message of using the net every night was selected as a means of creating a culture of consistent net use.

The presenters were also asked if there was any evidence on the impact of mass distribution of ITNs in hypoendemic or epidemic situations. The response was that the emphasis of most ITN trials had been on demonstrating their efficacy under conditions of high endemicity, but more recently reductions in morbidity and mortality were being seen in Eritrea, for example, supporting their expansion to other countries with relatively low endemicity, e.g. Ethiopia.

The issue of exit strategies when implementing IRS were also discussed, and it was noted that historically, Asia and Latin America were able to sustain impact achieved through IRS by using other methods. No generic exit strategy is likely to be applicable to all countries, but the progressive scaling-up of ITN coverage could be useful in many countries.

Cross-resistance between DDT and pyrethroids was highlighted as an issue in the presentation by Birkinesh and clarification was sought on whether or not this cross-resistance would undermine the use of pyrethroids, which are the only class of insecticide currently available for ITN treatment. In response, it was stated that resistance to pyrethroids appears to influence DDT resistance, rather than DDT resistance resulting in a reduced efficacy of pyrethroids.

The issue of differential residual efficacy of DDT and other insecticides on walls constructed from different materials was raised. Participants were informed that most insecticides perform less well on mud. The minimum effective performance period for DDT is 6 months, but can reach 15 months when sprayed on some surfaces under the right environmental conditions.

Clarification of what structures need to be included in the 80% coverage target for IRS was requested. In response it was confirmed that all structures that are actual or potential resting sites for vectors must be sprayed.

The importance of taking more notice of the opinions of communities when deciding on implementing either ITNs or IRS, was stressed by participants

### *7.2.13 Zanzibar NMCP special Session*

The session was opened with the presentation of a gift of 200 LLINs from Vestergaard-Frandsen to the Ministry of Health, Zanzibar, who donated the nets to a local organisation supporting people living with HIV/AIDS. This was followed by a presentation on the development, implementation and impact of the Zanzibar strategic plan for malaria prevention and control. Participants were then invited to visit a number of market stalls showcasing the major components of the Malaria Control Programme, namely Case Management, Vector Control, data management, and IEC. The session closed with a video depicting the recent IRS campaign carried out on Zanzibar

*Participants examining the vector control market stall*

## *7.3 Day Three – Wednesday 22nd November 2006*

The session was opened by James Banda, who reflected on comments received following his presentation on the global change process from Day Two that suggested that country partnerships may be more rhetorical than real. James assured participants that country RBM partnerships are real and are acknowledged as such by the global level, which has articulated a clear commitment to supporting country partnerships.

### *7.3.1 Improving the Use of Malaria Indicators – Bernard Nahlen*

Bernard began by summarising some of the issues raised in relation to M&E by the RBM External Evaluation of 2004, which included:

- Failure to clearly define goals and priorities of the M&E strategy
- Too may indicators, too many sources of data
- Insufficient guidance to countries on data collection and methodology
- Insufficient attention given to ensuring that data were representative
- Lack of consistency in indicators and definitions, guidelines and practices, sampling methodologies

A specific recommendation of the external evaluation was the establishment of a reference group for periodic consultation on technical issues relating to M&E. This reference group was established as the MERG in May 2003 and continues to meet regularly. The MERG includes five task forces: namely a mortality task force, a morbidity task force, an anaemia task force, a survey task force, and a strengthening national M&E capacity task force, \and the products and outputs of these task forces were briefly reviewed. Model M&E frameworks for the core malaria interventions were presented and this was followed by a consideration of the use of a single, comprehensive national M&E plan as part of a ”Three Ones” approach to malaria. Suggested requirements of such a plan were presented as follows:

- Measure “scale up” (increasing coverage) and “impact” (anticipated burden reduction in mortality and morbidity terms)
- Track key inputs-processes-outputs to achieve increased coverage with each intervention
- Establish surveillance requirements – e.g., drug efficacy monitoring, vector resistance monitoring
- Identify existing and needed data sources
- Identify methods for problem solving when inputs, processes, and outputs are not met
- Identify and engage partners in M&E (e.g., science community, NGOs, etc.)
- Establish reporting requirements and dissemination within and external to the country
- Use your best tools – e.g., maps, calendars to guide the work

A process for the establishment of a national M&E plan was also proposed, to include: agreement on Impact and Outcome measures as per RBM-MERG; agreement on Input-Process-Output measures as per MERG; inclusion of “surveillance” for intervention tool efficacy (drugs and insecticides); and establishment of “problem solving” systems.

The following recommendations on M&E for EARN were proposed:

- Adoption of a system that will capture true indication of malaria cases: # of fever cases, # tested and # positive by each health facility through the HMIS
- Programmes to liase with HMIS for inclusion of additional indicators wherever feasible
- Periodic update of geographical stratification
- Programmes should focus on evaluation of impact indicators
- Programmes should be engaged in active surveillance, especially those with low malaria endemicity; unstable malaria; changing epidemiological pattern; with malaria free areas
- Consider recruiting logisticians/data managers

- Countries should strive to include additional malaria indicators in the different surveys and systems.
- Partners to ensure research institutions are represented in the future meetings
- WHO should avail standardised indicators for surveys (DHS, MIS, MICS and HFS) and routine monitoring
- WHO to standardise the IRS coverage indicators

**Discussion**
A comment was made that the linkages between malaria and other M&E systems need to be better developed, or where they do exist, better articulated. Bernard agreed and cited several examples, including linkages between malaria and HIV M&E systems, and the Multiple Indicator Cluster survey (MICS), which collects data on a range of indicators across child survival and other areas. However, it was also acknowledged that there is a risk of M&E systems becoming overburdened as a result of too many additional indicators being added, and the example of the MICS was cited, in which the inclusion of additional indicators is now prohibited. The World Bank quick surveys for socio-economic stratification were also mentioned as a potential tool for developing useful linkages.

One participant suggested that indicators relating to communication and IEC/BCC need more development, as currently the focus is on printing or distribution of materials, rather than results achieved through their delivery. It was noted that similar problems also exist with indicators for training.

A proposal was put forward for EARN to convene a data workshop, where countries can compare data, collection tools, analysis methods, etc.

The following two presentations described country experiences in the use of indicators in the preparation of GF proposals.

### *7.3.2 Use of Indicators in Preparation of Proposals, GFATM Experiences – s Sudan*

The southern Sudan delegation reported that they found Attachment A – the Targets and Indicators table useful as it ensures a linkage between Service Delivery Areas (SDA) and indicators and elaborates the progressive performance for each SDA. The Multi-Agency M&E toolkit was also considered quite useful, as it facilitates the preparation of a comprehensive list of indicators that are well harmonized with RBM M&E framework indicators. Southern Sudan included a total of 18 indicators in their sixth round proposal, mainly at the process and outcome levels, with data on 12 of the 18 indicators to be collected through routine health information systems. Several key output indicators used in the proposal had no baseline data available, including: % of households with at least one ITN, % of pregnant women sleeping under ITN, % of <5s treated appropriately within 24 hrs, % of pregnant women receiving IPT2, and % of care givers who know signs of severe malaria. Issues identified in relation to M&E for the GF included: time required (>3 years) for routine information systems to function optimally; the lack of output/process indicators at programme level; lack of up-to-date national level indicators (MICS 1999 indicators do not capture recent interventions); the effects of increasing coverage of health services and population movements related to returnees on status of indicators.

### *7.3.3 Use of Indicators in Preparation of Proposals, GFATM Experiences – Kenya*

The Kenya delegation described several lessons learned in relation to indicators from their experiences in GFATM proposal development, including: the need to select indicators that can be easily collected within existing M&E system; inclusion of indicators that are already defined within the malaria business plan; indication of the frequency of collecting the indicators helps in identification of feasibility of programme implementation and defines the timetable for

progress reporting; and selection of appropriate indicators helps to identify the data collection method e.g. survey.

### *7.3.4 Panel discussion on the "Three Ones" Approach – M&E*

The World Bank panellist stated that as one of the three major financial supporters of malaria control, it had been heavily involved in discussions around the "Three Ones" concept, namely one operational plan, one coordinating mechanism, and one M&E framework. Development of strategic plans with RBM and WHO was considered to have facilitated development of the one operational plan arm of the three ones, and both PMI and the World Bank already used country strategic plans as the starting point for discussions and negotiations with countries. First generation plans were developed against a resource-limited background, and hence were somewhat conservative. The increased levels of funding now available provide a clear opportunity for countries to develop more ambitious plans. In this light, the panellist was delighted to see that second generation plans incorporate a gap analysis component. As regards one M&E framework, the World Bank is a member of MERG, and support the efforts made in harmonising indicators and tools. As regards one coordinating mechanism, it was acknowledged that in some countries this takes the form of the CCM, while in others it is the role of the RBM partnership. In other countries, coordinating mechanisms remain weak, and there is a clear need to support governments to take the lead on coordination. To close, the panellist reaffirmed the commitment of the World Bank to the RBM partnership.

The first Global Fund panellist emphasised that the GF is also committed to the RBM partnership, as it has no in-country staff and therefore relies heavily on the RBM partnership at country level, putting a high priority on country led processes and the partnership. Participants were informed that the GF is now embarking on a five-year evaluation, in which one of the questions being addressed is the effectiveness of working with the partnership and the effectiveness of country coordination mechanisms. The panellist noted that ten years ago, there would have been no point in having a discussion on the "three ones" approach or on harmonisation, and this is a clear indication of the progress being made in harmonising systems and approaches, and also in resources mobilisation. The panellist also felt that countries seem to be more in the driving seat than they were previously, and this has been to a large extent facilitated by the availability of clear national plans. Realistically, no one can disagree with the "three ones" approach in principle, however, for it to be effective it must be properly operationalised at the country level. Participants were reminded that up to 10% of GF grants are available to strengthen monitoring and evaluation systems, but this is not happening to date. Funds from previous rounds can also be reprogrammed to support M&E/HMIS functions.

The second Global Fund panellist posed the question whether or not a "three ones" approach could be successfully applied to procurement. Will standardisation and pooled procurement improve efficiency, and lower costs? Currently, countries have 2-5 procurement systems, all of which conform to different standards, e.g. World Bank, Global Fund, national, etc. A pooled procurement evaluation is on-going with countries to try and answer some of the questions relating to pooled procurement. It was emphasised that a pooled procurement approach would not necessarily result in one uniform system, but rather improved harmonisation and standardisation, while retaining the flexibility needed to respond to different country circumstances.

**Discussion**
The general consensus among participants appeared to be that a "three ones" approach is both possible and desirable.

A problem faced by country programmes is the need to include smart indicators in proposals in order for those proposals to be successful. As a result, countries often find themselves dealing with an organisation (GF) that uses very stringent methods to monitor implementation,

but this is based on indicators and targets that were hastily defined, and are often lacking accurate baseline data. It was suggested that for this reason, the implementation monitoring process needs to be more flexible. A related question was whether indicators from Round 4 proposals could be adjusted to better reflect the true situation. The response from the GF representative was that the GF would be flexible in cases where countries feel their original indicators and targets were inappropriate. Any proposal to make adjustments should be submitted through the fund portfolio manager.

A related question was raised regarding how technical issues arising in GF grant implementation can be dealt with during the periods when the Technical Review Panel is not operational. Participants expressed a desire to have a continuous technical function within the GF to support countries to implement and monitor progress according to their proposals.

One participant felt that the linkages between M&E and programme implementation are still not clearly understood, including the need to involve communities in data collection, as well as to ensure that communities get feedback on results of programme implementation. There was general agreement on this point.

In relation to the one coordinating mechanism component of the three ones approach, the panellists were asked to clarify if the current GF review process, which includes a review of CCMs, would conclude that the CCM is the only coordinating mechanism, given that in some countries the CCM is weak, not always chaired by government, and sometimes dominated by HIV/AIDS personnel or concerns. In response, it was acknowledged that malaria is not always strongly represented on CCM, and the CCM will not be the only option for coordination at country level, however, in some cases it may represent a convenient one.

The panellists were requested to confirm that GF/WB/PMI and other donors would respect the proposed RBM validation process, in light of the fact that the earlier REAPING exercise had proved very useful but ultimately no funding was received to meet the gaps identified. The response was that the validation process would not remove the need for individual proposals to the different funding bodies, but it should help streamline the process by presenting donors with validated and accepted strategies and operational plans, as well as a detailed and fully costed gap analysis. It was also suggested that the process could have important consequences in terms of further raising the profile of malaria and in positioning national programmes and partnerships as the driving force, rather than the donors.

It was suggested that other countries could learn from the example of Kenya, which has a strategic plan, a business plan and an operational plan, making gap analysis and negotiation with partners much easier.

### *7.3.5 Private Sector Access to antimalarials – Desmond Chavasse*

Des began by briefly reviewing the current situation in relation to ACT policy change and implementation in the sub-region, and concluded that to date the focus has been primarily on the public sector, and has not yet begun to effectively address the role of the private sector in malaria case management. Given that an estimated 40-80% of child fevers are treated outside of public health facilities, the role of the private sector is significant. Some issues of relevance to interactions between the public and private health sectors were identified as: the need to control leakage of public sector ACTs into the private sector; preventing the demand for artemisinin monotherapy from undermining the efficacy of ACTs; preventing the emergence of fake ACTs in Africa, among others. In addition, it has to be acknowledged that many unapproved malaria drugs are already available in the private sector.

### *7.3.6 Addressing the Challenges – Ricky Orford*

Ricky presented on some of the challenges and potential solutions relating to increasing access to effective treatment with the involvement of the private sector. Suggested ways in which the private sector could contribute to improved access to effective treatment included the provision of pre-packaged ACT through private sector as part of national Home Management of Malaria strategies; improving access to ACTs through the use of accredited drug retailers; increasing the speed at which a child receives the first dose of medicine by making those medicines available in the home. Challenges to providing effective treatment through the private sector were identified as:

- Multiple products of varying quality
- Risk of inappropriate treatment (age groups)
- Complexity of treatment
- Need to encourage referral of complicated cases
- Product design
- Product price
- Availability of patient counselling
- Adverse Drug Reactions / Adverse Drug Events monitoring
- Fakes / poor standards

Some proposals for addressing the above challenges were presented. Quality concerns could, for example, be addressed by procuring only from WHO/UNICEF approved suppliers, implementing strict systems for quality control using national and WHO pre-qualified labs and using enhanced packaging to protect the product in the field. Risks of inappropriate treatment and complexity of the new regimens can be addressed through the use of pre-packaged medicines that are labelled in local languages, pre-tested and re-tested for community suitability, with distinct packaging for different age groups, use of patient Information leaflets, etc. ADR/ADE monitoring can be improved by training providers, developing user-friendly reporting forms, establishing reporting systems, etc. The need to include indicators for M&E of private sector involvement into national M&E frameworks was emphasised and several key monitoring tools were listed, including mystery client surveys, population surveys, GIS coverage surveys, and medical detailing visits.

The characteristics of a model national programme were then described as: country-adapted, country-specific pre-packaged first-line ACTs, quality assured and heavily subsidised (US$ 0.20??) to children under five, distributed through trained government approved outlets (with delegation of prescription to that level) and accompanied by extensive communication and monitored through an integrated national M&E framework.

### *7.3.7 Promoting Rational Use of ACTs in the Private Sector – James Tibenderana*

The presentation began with a description of the current context in which malaria treatment occurs in many African countries, specifically: the private sector flourishes, especially in areas with limited or no public sector health care facilities (+informal sector, 35-65%). Public sector staff are poorly remunerated yet face a heavy workload, which can lead to “moonlighting” during working hours. All age and wealth categories of people use the private sector. Private sector health workers can feel marginalised by the move towards free ACT distribution through the public sector and impending community distribution. As a result, several challenges must be faced, including: a lack of consistent and high coverage post-qualification training and supervision, poor prescribing behaviour, questionable quality of medicines prescribed, ACTs remain prescription only medicines. In addition, “unqualified” people successfully operate in the private sector, lower cadres of health workers are often in charge of clinics, presumptive treatment remains widespread, diagnostic results are often not respected, and the profit motive of the private sector could theoretically reduce the emphasis on technical quality. The significance of the private sector is that it is already an integral part of health care delivery systems, it buffers shortfalls in the public sector, and it has built social

trust with the communities served. As well as these positive characteristics, the private sector can also serve as the distribution mechanism for counterfeits, and could ultimately be the source of drug resistance through poor prescribing practices. A possible programmatic approach to addressing some of these challenges was then described as follows: development and implementation of a national policy that encourages involvement of the private sector and encourages rational use of ACTs by improved training of health workers, while creating demand for recommended effective ACTs by reducing cost and increasing awareness; promoting patient adherence and compliance through locally appropriate packaging and social mobilisation; strengthening regulatory mechanisms; promoting good quality generics; strengthening distribution systems; providing technical assistance to local manufacturers; and enabling the appropriate and safe use of ACTs over the counter

**Discussion**
The suggestion by economists that the challenges faced in the fight to ensure access to ACTs could be solved primarily through price reductions. It was generally agreed that price is a dominant factor, and if prices were reduced at the manufacturing level, then market forces would indeed address many of the challenges. However, the presenters did not agree that price would solve all challenges, because the economists' model is reliant upon genuinely open markets and competition, with many alternative products and effective quality assurance and quality control, a situation which does not exist at present in relation to ACTs, especially in developing countries. It was also suggested that imperfect markets could also potentially undermine the proposed global subsidy mechanism as they could allow for the successive addition of profit margins between factory and end-user.

### *7.3.8 Integrating Delivery of ACT in Public, Private and Community Sectors in Rwanda*

The Rwanda NMCP then presented on its experiences in trying to develop and implement the integrated delivery of ACTs in the public and private sectors and in the community. Rwanda has recently passed a law that prohibits the importation of artemisinin-based monotherapies and other medicines not pre-qualified by WHO. Rwanda currently implements a system of cost-recovery in its public health system, with end-users required to pay a fraction of the cost of treatment. For ACTs, the costs borne by the end-users are: 100 Francs Rwandaise to members of mutuelles (a system of health insurance), 200FrRw for children under 5, and 300FrRw to children over 5 and adults. The same cost-recovery structure is also applied to community delivery of ACTs. Community Health Agents additionally prescribe AQ+SP in the community, for which a charge of 50FrRw is charged. As regards the private sector for antimalarial medicines in Rwanda, the situation is as follows: there are 38 officially-licensed pharmacies, 540 recognised drug stores (without licensed pharmacists), 350-700 private clinics and dispensaries, and 12,000 community health workers who can also be supplied through private sector channels. Approximately half of all patients in Rwanda use the private sector for treatment. Some 23 different antimalarial products are available on the market, including 5 Artemisinin monotherapies (average price US$6 per dose), and 3 combination therapies (AQ/SP, ART/SP, AQ/ART). SP and AQ are also widely available, threatening the continued efficacy of combination therapies incorporating these medicines. Coartem is not currently available in the private sector, but will likely appear once the generics become available. AQ/SP blister packs are leaking from the public sector into the private sector. Packaging and information inserts target providers, rather than rural or low-literacy families.

Rwanda's approach is to support an integrated Public/Private distribution system to increase access and availability of effective, affordable malaria treatment. By integrating and coordinating public and private sectors from the beginning, it is hoped that a dual system, whereby artemether-lumefantrine is available in the public sector, while other uncontrolled drugs are available in the private sector, can be avoided. The integration of community health agents in this approach will also contribute to the sustainability of community health care. To this end, private sector provision of Coartem has been planned from the beginning, and broad-

based, multi-level, integrated communications will be used to improve treatment seeking behaviour through both the public and private sectors. Expected outcomes of this approach include:

- Doubling the access to Coartem, leading to Abuja target achievement.
- Reduced average time for fever sufferers to receive first treatment
- Increase speed of transition to Coartem
- Artemisinin efficacy preserved by crowding out monotherapies.
- Improved treatment seeking behaviour and compliance
- Reduced leakage of public sector coartem into private sector
- Reduced public cost per person treated (reducing progression to severe malaria)
- All channels part of ONE program

### *7.3.9 Delivering ACT through Accredited Drug Dispensing Outlets (ADDOs), Tanzania Mainland – Sigsbert Mkude*

This presentation described the ADDO programme that is being implemented in Tanzania by TFDA in partnership with MSH, and which aims to upgrade ordinary drug shops (*Duka La Dawa Baridi* [DLDB]) to Accredited Drug Dispensing Outlets in order to increase access to and rational use of essential quality medicines. The ADDO programme addresses some of the problems associated with DLDBs, such as the limited list of medicines sold (ACTs excluded), inadequate sources of medicines and commodities, unsuitable storage conditions, a lack of qualified dispensers, high prices, and inadequate regulation and supervision. Through the accreditation programme, the quality of both products and services is ensured through a combination of government regulation and accreditation, and access to a wider list of medicines (including ACTs) is authorised. Monitoring of ADDO outlets is the responsibility of district/local government and is carried out through community structures. Physical infrastructure of outlets is upgraded, including a contribution from owners of US$900-1500. Incentives are provided to owners through business skills training and establishing links to a Bank (MFI/NMB). The current status of the ADDO programme is that 4 of 21 regions are already funded by GOT, USAID and Bill & Melinda Gates Foundation, and an (unsuccessful) application to GF R6 was submitted to support the roll-out to the rest of the regions. Procurement and distribution of Coartem® to all Public health facilities was scheduled to have been completed by the end of November 2006, with national implementation of treatment with ACT due to commence in December 2006. As regards the role of ADDOs in malaria treatment specifically, quantification of the numbers of ACTs needed to be delivered through ADDOs has been completed, with an estimated 5.5 million treatments (or 35% of the total) to be provided through the private sector. Remaining challenges for the ADDO programme include the slow roll-out process due to limited funds, and also the lack of funding for the comprehensive communication strategy for ADDO.

**Discussion**

The Rwanda delegation was asked to describe the rationale for setting the price of ACTs delivered through the private sector at 250FrRw. The response was that it was felt that private sellers needed a sufficient profit margin to prevent them from promoting other non-approved medicines in place of ACTs. Ultimately, it was a government decision to set the price at 250FrRw. Participants were also reminded that Rwanda is a country that charges for medicines even in the public sector, and the differential pricing structures are also used as an incentive to encourage individuals to make more use of public sector providers, and to join *mutuelles*, where prescription charges are even lower.

The Tanzania presenter was asked to quantify the uptake of ADDOs to date, especially in light of the relatively large contribution required from owners towards the cost of upgrading facilities. In response it was stated that no specific data were available yet.

The question was also raised as to how the ADDO process could prevent the owner or trained dispenser from appointing a non-qualified dispenser to operate in her/his absence. The response was that the ADDO contract with the drug shop owner requires there to be two trained dispensers. In addition, ADDO dispensers can earn more than those working in non-accredited facilities.

### *7.3.10 Video Presentation on Fake Medicines in the Mekong Region – David Bell*

A WHO video "Dealers in Death", which examined the fake medicines industry in the Mekong region was then shown.

### *7.3.11 Malaria Control in Complex Emergencies – Tom Ogwal*

Tom Ogwal of the IFRC presented a summary of the principles of malaria prevention and control in complex emergency situations, including in the acute phase (0-4 weeks), the stabilisation phase (4-10 weeks), the chronic phase, and the settlement or repatriation phase. The acute phase is usually characterised by the following: high mortality rates (usually >1/10,000 per day), poor access for the affected population to effective health care, appropriate response is beyond local or national capacity, and normal coordination mechanisms may have broken down. The malaria burden is often exacerbated by these problems, as well as the lack of immunity to malaria in populations displaced from a non-malarious or low transmission area to one of high transmission, and weakened immunity due to poor nutrition. Other factors can include increased exposure to mosquitoes due to poor or absent housing, and environmental deterioration resulting in increased vector breeding. Assessment is a vital component of initial emergency response and is used to identify current health priorities and potential health threats, to assess capacity and resources available to respond to the situation, to collect baseline information for monitoring and evaluation of the effectiveness of planned interventions. Key interventions for malaria prevention and control in complex emergencies are essentially the same as those used in routine programmes, namely IEC and community social mobilisation, curative services for prompt treatment of cases, use of ITNs, other insecticide treated materials and IRS, IPT, and epidemic preparedness and response. Opportunities presented by the unique situation of complex emergencies include concentration of the population, which may facilitate health education for behaviour change interventions, as well as the availability of additional humanitarian funding.

### *7.3.12 Malaria Diagnostics – Jane Carter*

Jane Carter of AMREF's Clinical Programme then presented on malaria diagnosis. The need for definitive malaria diagnosis is based on the following factors: presumptive (clinical) diagnosis can result in mis-diagnosis rates of as high as 50 – 70%, leading to irrational drug use and poor quality of care. Rational drug use is of increasing importance in light of the increasing costs of effective anti-malarial drugs, and it was noted that children over 5 years and adults receive 70% of all malaria treatment, and consume 80% of the antimalarial drug budget. Fever management for U5s not demonstrating signs of severe disease in highly endemic areas comprises a presumption of malaria, examination for signs of other infections and treatment. In this situation a malaria diagnostic test is not essential. In areas of low transmission intensity, malaria should be considered as a cause of fever, the patient should be examine for signs of other infections and treated accordingly, and a malaria diagnostic test is required. Other indications for the use of diagnostic tests include: reassessment during or after treatment; fever in pregnancy (by parasitological diagnosis wherever possible); where severe malaria is suspected, in which case presumptive treatment should start immediately while diagnosis is confirmed; and in children aged <2 months. The currently available techniques for the laboratory confirmation of malaria were described as follows:

- Visualisation of parasites:
    - Blood slide microscopy:
    - Giemsa, Field stain
    - Acridine Orange

    - QBC - Quantitative Buffy Coat

- Detection of antigens/antibodies
    - RDT – Rapid Diagnostic Tests
    - Antigen/antibody ELISA
    - PCR – Polymerase chain reaction

and a comparison was made between the use of stained blood slides and rapid diagnostic tests (see table below)

Table: comparison between stained blood slides and rapid diagnostic tests

| | **Stained blood slide** | **Rapid Diagnostic Test** |
|---|---|---|
| Equipment – (integrated) | Electric, binocular microscope | None |
| Staff | Trained | Minimally trained |
| Timing | 20 - 30 minutes | 15 minutes |
| Quantification | Yes | No |
| Species differentiation | Yes | No |
| Follow up | Yes | No |
| Drug regime monitoring | Yes | No |
| Sensitivity | 5 – 100 parasites/µl | 10 – 100 parasites/µl |
| Storage for QA | Months/years | May fade |
| Cost | USD 0.12 – 0.40 | USD 1 - 2 |

The characteristics of the two commonly used stains for preparation of blood films for microscopy were described and it was proposed that Fields Stain could be a useful option for smaller facilities. Suggestions to improve the quality of microscopy include:

- Use of clean, dust free glass slides
- Correct technique
- SOPs available
- New stains checked with known positive slides
- Avoid stain deposits
- Giemsa freshly prepared
- Field stain filtered periodically
- Regular validation of slides at a reference laboratory
- EQAS panels of malaria slides

### *7.3.13 Rapid Malaria Diagnosis in Fever Management – David Bell*

David presented on the use of rapid diagnostic tests (RDTs) in fever management. Key reasons for improving the quality of malaria diagnosis include: better case management, better prescribing practices, cost-savings, better HMIS data, and better morale among health personnel, as patients believe test results. The different types of RDT were then described, according to antigen detected and test presentation (card, dipstick, cassette). The results of

field trials using several of the commercially available RDTs were presented, which showed a range in sensitivity of from 20% to 84% between studies and the reasons for this high variability could be due to either differences in the quality of the tests used, or in the conducting of the trials. The main issues with the use of RDTs include: lot-lot variations in sensitivity; stability of RDTs under different environmental conditions; user accuracy; management of negative RDT results (still treat?); use in private sector; and overall public health and cost benefits. Requirements for ensuring the quality and reliability of RDT results are presented in the figure below, and activities in each of the critical areas were discussed.

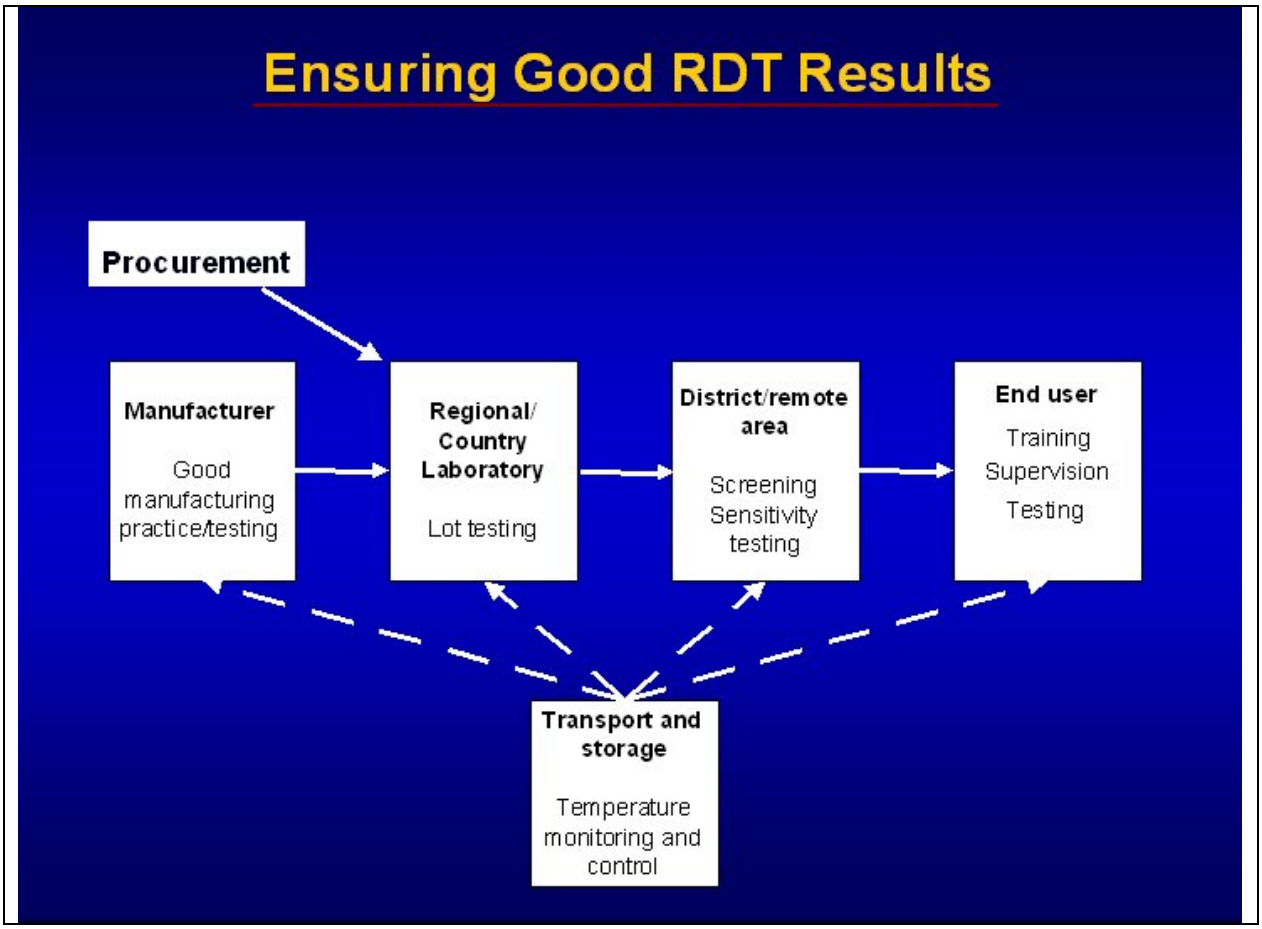

Figure: mechanisms to ensure the quality of RDT results

A malaria specimen bank held at CDC and KEMRI, is being used to test quality of RDTs. Testing labs are operational in Asia and are being established in Africa to undertake lot testing of large RDT purchases, and to collect and prepare parasites for the specimen bank. Lot testing requires about 150 tests from each lot. Recommendations to improve transport and storage of RDTs include the use of staggered procurement, and use of a cool chain, which comprises central air-con storage as long as possible, storage in the shade, under thatch roofs, ad use of low-tech evaporative cooling techniques. Current activities to strengthen quality of use by health workers include testing against good microscopy at sentinel sites (e.g. at sites for drug efficacy testing), and checking poor performance in labs. Future developments may include the use of positive control wells on RDT cassettes, and these are currently being tested. Job Aids and training packages for health workers are also recommended, and generic materials were provided to participants

**Discussion**

Jane was requested to clarify the benefits of using fields stain for microscopy at small facilities. The response was that Fields Stain is the only aqueous stain for blood films and comprises two solutions (Fields A and B) that have to be kept separate. The other available

stains, including Giemsa, are dissolved in methanol, and need to be mixed with buffered water prior to use. The addition of buffered water, however, causes precipitation and so diluted giemsa needs to be discarded at least daily. Because the Fields stains are already in aqueous solution they do not form precipitates and do not need to be discarded. For this reason, they may be preferable and economical for labs that deal with only a few slides per day.

As regards quality control of microscopy, clarification on the minimum number of slides that need to be reviewed was sought, as well as information on which, if any, countries in the sub-region were currently applying this protocol. In response it was stated that a minimum of 15 slides per month, half positive, and half negative are required to be reviewed. Kenya is just starting to introduce this protocol as part of routine QC/QA procedures. The need to conduct quality control testing on stains and to strengthen clinical practices, especially in response to negative test results, were also emphasised

One participant expressed concern at the poor sensitivity (20%) reported for one of the RDTs in field trials and requested advice on what those countries that had gone to scale with testing using this specific RDT should do while awaiting panel testing results. The response was that the results reported could have been related to specific circumstances where the trial was carried out (high parasite diversity and high HIV prevalence) and should not be interpreted as general. Recommendations for countries were to implement a good monitoring system to quickly identify any sensitivity problems, and to conduct lab tests on each batch of RDTs prior to sending them into the field.

The need to provide community health workers and other workers at the periphery of health services with improved diagnostic skills for other common infections, as well as treatment alternatives in the case of a negative RDT result, was emphasised in order to reduce the incidence of treating for malaria even when a test reports a negative result.

### *7.3.14 Update on Strategic Malaria Communication Assistance for EARN/WARN – Cheryl Lettenmaier*

Cheryl provided an update on strategic malaria communication assistance for EARN/WARN, which included hosting a strategic communication workshop for EARN/WARN members, preparation of a CD-ROM with examples of malaria communication materials from the two sub-regions, and finalisation and dissemination of a ‘kit’ for malaria communication. Participants were also informed that a communication framework for malaria has been drafted and submitted to WHO. Cheryl advised country programmes that instead of concentrating on IEC and one-off campaigns, there is a need to focus on building the overall health competence of populations, to enable individuals to make decisions that benefit them. Programmes also need to consider the costs of not using effective communication to complement other interventions. It was acknowledged that communication represents a big burden on malaria programme staff, who generally do not have the skills, experience or resources to undertake this type of work effectively.

### *7.3.15 Voices for a Malaria Free Future – Claudia*

Claudia introduced participants to the VOICES for a Malaria-Free Future campaign, which is a targeted advocacy programme managed by Johns Hopkins Bloomberg School of Public Health Center for Communication Programs, CORE, Malaria Consortium, and IFRC. Its aims are to develop case studies, disseminate lessons learned and success stories of effective malaria control to current and new advocates and to seek strategic opportunities for new voices (malaria champions) through local government, media, civil society and the private sector.

**Discussion**

The suggestion was made that advocacy efforts also need to target national governments as well as international donors, and this was accepted as desirable. It was also suggested that dissemination of national research activities and results could form a useful component of those national advocacy efforts.

### *7.3.16 – Malaria and Nutrition-Related Deficiencies - Gary Gleason*

Gary Gleason of Tufts University, USA then presented on recommended strategies to control iron deficiency anaemia and other micronutrient deficiencies in East and Southern Africa. The presentation commenced with a review of the interactions and interdependencies of nutrition, anaemia and malaria at different stages in the human life-cycle, a summary of which is presented in the figure below.

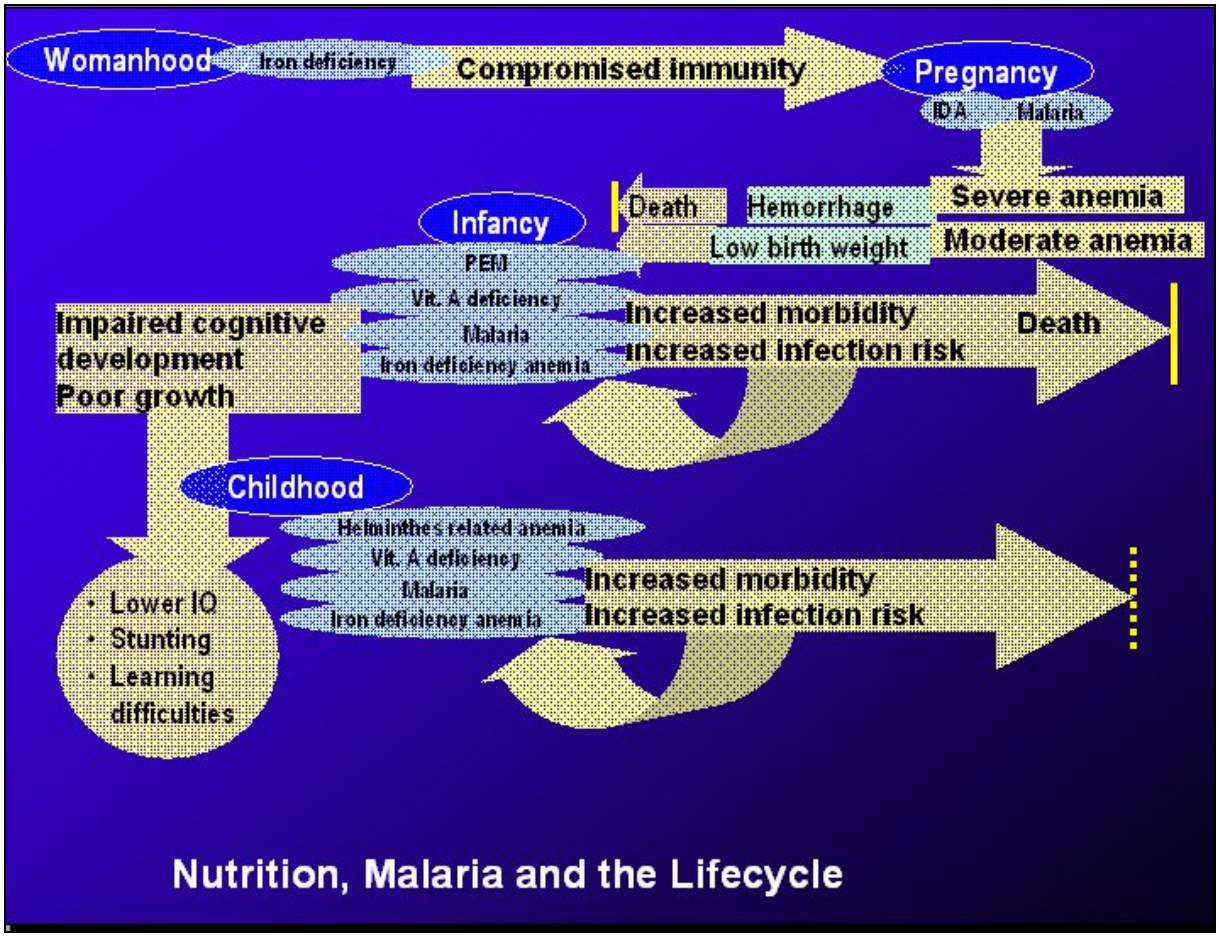

Figure: the interactions among nutrition, anaemia and malaria in the human lifecycle

Key elements of effective anaemia prevention and control planning in the context of RBM were described as follows:

- Sectoral and expert commitment (technical data, research and advocacy)
- Political commitment (demonstration and advocacy)
- Multiple interventions (national and sub-national emphasis)
- Strategic phasing (10-15 years?)
- Resource generation (national, external, private sector)
- Cross sector and cross program actions

The proposed intervention package includes: food fortification, provision of iron supplements to especially vulnerable population segments, and increased diversification of diets. Supportive elements for effective anaemia prevention and control include:

- Effective systems for monitoring and adjustment of interventions

- Mechanisms to maintain and strengthen links to related programs
    - Roll Back Malaria (supplement provision, in-home fortification, training and communication)
    - Hookworm control
    - Schistosomiasis control
    - HIV/AIDS prevention and control
    - Safe motherhood (supplements, during and b before pregnancy)
    - IMCI
    - Emergency feeding (fortified CSB, in-home fortification, supplementation)
    - School feeding (fortified foods)
    - Pre-service and in-service training in health and nutrition
- Communication support: Social mobilization

Unfortunately, no such national programmes currently exist in the Eastern and Southern Africa Region. Fortification of staple foods (wheat flour and maize) is on-going, but will not have substantial impact on children under two years of age. Emergency feeding with corn-soya blend (CSB) correctly fortified for young children has a role, but is seldom used consistently.
Gary was asked if Vitamin A supplementation at high coverage rates could have an impact on malaria. The response was that vitamin A supplementation certainly improves immunity status and therefore would be expected to have at least a partial impact on malaria.

Gary then reviewed some of the implications of the Pemba study on iron supplementation, which have resulted in draft conclusions and recommendations from WHO on prevention and control of iron deficiency in infants and young children in malaria endemic areas in June 2006. The conclusion reached was that in areas of stable and high malaria transmission iron supplementation with oral tablets or syrups of young children should not be done without screening. However, the importance of and risks associated with iron deficiency were also discussed. Iron deficiency is known to increase the risk of serious infection related morbidity, and iron / folic acid administration reduces the relative risk for all adverse events and for malaria related adverse events in iron deficient children.

Proposed intervention strategies
- Supplementation following screening (adoption of universal screening?)
- Supplementation without screening
    - Greatest benefit likely to occur between 6 and 18 months
    - Moderate and low transmission regions
    - Effective prevention
    - Effective primary care
- Modification of intervention strategy
    - Expanded promotion of complementary food fortification (commercial)
    - Expansion of In-Home fortification of complementary food (Sprinkles)
    - Intermittent supplemental dosing
    - Slower release form – gastric delivery system
- Elimination of folic acid

**Discussion**
The best solution for iron supplementation is likely to be the use of sachets, the contents of which can be sprinkled on complementary foods. As iron in these sachets is in a micro-encapsulated form, it smooths out the absorption rate and reduces any bolus effect. Current recommendations, however, state that these sachets should not be used for now in high, stable malaria transmission areas, but unfortunately nobody has been able to define exactly which areas this applies to, and hence there is a need for more accurate, sub-national scale mapping of malaria transmission intensity in Africa.

Further information on the interactions of iron and malaria parasites was requested. The response was that the parasite cannot replicate without iron, however, iron supplementation does not appear to increase parasite density.

One participant noted that in Africa many communities have access to plant protein rather than meat protein, and that local plants do contain iron. The question was then posed as to whether supplementation with ascorbic acid to improve absorption of iron could make plant-based foods an appropriate and sufficient source of iron. In response it was agreed that ascorbic acid does improve iron absorption, but plants do not contain sufficient iron for this approach to be effective at reducing IDA in young children. Iron is only available in sufficient quantities from meat or blood.

### *7.3.17 Centrale Humanitaire Medico Pharmaceutique (CHMP) – Gael Mary*

CHMP, as a new EARN member, was invited to make a brief presentation on its activities. CHMP is a humanitarian entity for supply of pharmaceutical products, and has a base in Kenya in the EARN sub-region. It provides a full range of Essential Generic Medicines, Medical equipment and consumables, as well as laboratory reagents and test equipment. CHMP also provides training in the following areas:

- Quality Assurance
- Tools and methods of medicine distribution: good pharmaceutical distribution practices
- Managing medical supplies and stocks
- Managing supplies of ARVs, ACTs and IO medicines and their storage
- Helping in creation and technical assistance for quality medicine analysis laboratory
- Technical assistance for managing a central purchasing centre for pharmaceutical products

## *7.4 Day Four – Thursday 23rd November 2006*

### *7.4.1 Introduction to Gap Analysis – James Banda*

James introduced the session on gap analysis, which was designed as an opportunity for countries to share and compare their experiences, bottlenecks and challenges in programme implementation, and as preparation for the forthcoming RBM validation exercise, proposed PMI and World Bank Booster Programme missions and the March 2007 donor harmonisation meeting.

Participants were requested to use the GF forms to summarise operational, programmatic and other resource gaps, as there is general agreement that these forms serve as a good template that will be acceptable to all potential financing partners. This approach to presenting the gap analysis was tested in Mozambique, where it proved successful, and was subsequently accepted by the RBM Board as an appropriate mechanism.

It was later tested with seven further countries in Dakar, where it also proved successful. The RBM Board proposed that the same method be used with countries attending the EARN meeting. PMI is expected to include an additional eight countries in 2007, and so the gap analysis peer review exercise and preparation of the templates in the group sessions should form a useful basis for future negotiations with PMI and other partners. Participants were also informed that a request has been put to the GF not to change the tools too much prior to

Round 7, so that they can also be used in support of applications to this round. In addition, the group work was designed as an opportunity for countries to make recommendations on future iterations of the forms. Participants were also asked to consider any implications for their implementation plans, in the event that the identified gaps are filled during the coming months.

Melanie then introduced the group work format and procedures

(1) Review in groups each country gap analysis (refer to Round 6 proposals, Global Fund round 6 Attachment 3, attachment A and Attachment 5, Attachment 4.5.1-3 comprehensive gap analyses, strategic plans etc)
(2) Provide constructive feedback on the gap analysis for each country with a gap analysis
(3) Highlight for each country the strengths and weaknesses of the existing gap analysis. For example: are strategies technically sound? Will strategies be implemented at sufficient scale for impact? Are interventions fully costed? Are available finances adequately included? Is there sufficient absorptive capacity to implement? Are indicators appropriate?
(4) Provide feedback on gap analysis tools
(5) Define the stage of readiness for each country for finalising a complete gap analysis and define the process for completion including partner support and timeframe
(6) Provide feedback from countries on the whole process and ideas for gap analysis completion

Each group was requested to prepare 3 slides for plenary feedback on:

- status of each country's gap analysis completion e.g. completed, strategic plan in place, etc
- essential next steps for completion
- thoughts on methods and process

### *7.4.2 Country Partner Support Needs – John Chimumbwa*

John informed participants of the process and requirements for Country Support from EARN partners during 2007.

### *7.4.3 Country presentations on Gap Analysis Group Work*

**Group One – Ethiopia, Tanzania and Zanzibar**

| Issues | Ethiopia | Tanzania Mainland | Zanzibar |
|---|---|---|---|
| Strategic Plan | Ready (April 2006) | Ready (02 – 07) – Mid term plan, next SP in 2008 (08 – 12) | Have SP 2004 – 2008, needs revision (TA) |
| Implementation Plan | Regions have annual implementation plans – needs to be summarized to prepare a national implementation plan | Implementation plan will be completed in conjunction with the next mid term-plan | Available |
| Gap Analysis | Revised based on changing approaches, shift in priorities and country targets,<br><br>Interventions partially costed | No comprehensive gap analysis in the 2002 – 2007 SP<br><br>Gap analysis exercise partly done during the REAPING mission & GF R6 preparation | Currently there is no comprehensive gap analysis |
| Absorptive | There is good absorptive | Absorption is good, | High especially with the |

| | | | |
|---|---|---|---|
| Capacity | capacity – all donor funds including GFR2 has been effectively utilized, GFR5 is currently at 40% implementation in Year I alone,<br>Partners are involved in implementation of planned activities<br>Government contracts out activities | Delays in GF4 disbursement partly due to poor administrative arrangements by partners | effective and successful utilization of GF grants (R1, 4) |
| Strategies at sufficient scale for impact? | YES<br>Universal access to health services by 2008, (malaria CM)<br>100% of Households will have 2 ITNs/HH by end of 2007,<br>80% of epidemic prone villages will be covered by IRS (2010)<br>80% of malaria epidemics will be detected & contained (2010) | YES<br>Similar strategies will be employed,<br>The focus will be on rapid scale-up for universal access,<br>New strategies (IRS) will be explored | YES - with new direction to elimination<br><br>Case management<br>ITNs<br>Prevention of Malaria in Pregnancy |
| Indicators appropriate? | There is a national Monitoring and evaluation plan and agreed set of indicators | Yes | There is a major shift in goal to elimination of malaria and the indicators will be revised in light of the goal, |

**Essential next steps**

**Ethiopia**

Annual review meeting January 2007
Technical support needed to conduct annual review meeting and refine documents,
Country will be ready for the validation mission by February 2007 – first phase

**Tanzania**

Will re-visit SP and finalize preparation of next SP 2008 – 2012: will include comprehensive gap analysis and development of implementation plan,
Country will be ready for the validation mission around March 2007 – first phase

**Zanzibar**

Technical support required to review inclusion of the essential elements and comprehensive gap analysis in the new strategic plan
Ready for the validation mission in the first phase

**Thoughts on Gap Analysis Process and Methods**

- Transparent process for selection of countries required
- Clear terms of reference for missions to be shared
- Exhaustive check-lists used to gather information
- Tools for the validation should rely on established M & E indicators
- Missions should be consultative, broad-based and evidenced based, and include experience sharing with the recipient countries
- Countries to confirm readiness and forward official communication to RBM Secretariat by mid-December 2006

**Group Two – Burundi and Rwanda**

| | **Burundi** | **Rwanda** |
|---|---|---|
| Goals | Not sufficiently ambitious (50% reduction in mortality; 50% reduction in morbidity) | harmonise target percentages |
| Objectives | Require adaptation to bring them in line with | To reach the whole population |

| | | |
|---|---|---|
| and Activities | revised goals | Link objectives to goals |
| Budget | Requires review in light of revised goals | Requires review in light of revised goals |
| Technical Assistance | Demand estimation<br>Service quality: overall strengthening, quality control for ACTs on arrival; prevention of stock-outs at central and peripheral levels; management and follow-up of patients | Availability of ACTs of good quality at health facilities<br>Reaching the whole population |
| Indicators | Availability of ACTs of good quality at health facilities<br>IEC activities completed | Remove the first indicator (malaria-associated mortality among under 5s at community level)<br>Proportion of population reached by programme<br>Availability of ACTs of good quality at health facilities<br>IEC activities completed |

**Group Three – Eritrea, Somalia, northern Sudan**

| | **Eritrea** | **northern Sudan** |
|---|---|---|
| Strategic Plan | Completed – realistic – smaller gaps<br>Strategic plan 2005-2009 | Updated strategic plan 2006-2011 – identified gaps for the updated policy |
| Implementation Plan | Yearly operational plan, annual assessment workshop to develop operational plan | ACT guidelines, MIP policy, ITN guidelines, M+E plan for national and state level, approved by state MCPs. Quarterly meetings with SMCP to revise plans for the next 3 months |
| Gap Analysis | Partners provide survey support for mid strategic plan review (can be considered a gap) | 2005 MICS provided valuable information<br>R5 gap analysis performed for whole country/ R6 proposal preparation started early,<br>Non GF Round 2 gaps, plus the 4-5 localities not covered to date under GFR2, R6 gap.<br>LLINs in commercial sector – gap; re-treatment kits in the market<br>R6 Gap, geographical gaps from R2 |
| Technical Assistance | Technical Assistance required for training on diagnostics, entomology, QC of nets/ insecticides - huge differences in cost and quality - should go to tender between companies | |
| Essential Next Steps | Mobilizing partners<br>Implement with the funding presently available<br>Technical needs identified – EARN to support | Partnership to do a mission and do a gap analysis<br>Streamline GF R2 disbursement – UNDP-WHO-NMCP<br>Identify funding partners for GF R 6 shortfall<br>R7 proposal development assistance |

**Thoughts on Gap Analysis Process and Methods**

**Eritrea**

- Successful with GF Round 6, so foresees few gaps
- Narrow gaps may be better – large gaps lead to issues of absorptive capacity – affordable – realistic requests
- Partner support useful, external and internal, for surveys
- Donor pledges unreliable in timeliness
- Gap analysis tools have improved

**northern sudan**

- More funds means more gaps – with increased funds, more areas identified for work and therefore more gaps
- Very slow release of funds under GF, makes work planning very hard, quarterly reporting to GF unrealistic given slow disbursement, delay in IPT policy implementation.
- Operational costs high, not covered under GF
- Gap analysis process - attachment A ok, other forms difficult to use to explain Sudan situation, procurement plan not user friendly.
- GF forms not easy to fill therefore developed own

**Group Four – Kenya, Uganda, southern Sudan**
**Peer Review of GF Round 6 Proposals**
**Uganda**

- Indicators under Goals 1 & 2 were inappropriate (reduction in vector density, reduction in sporozoite rates)
- Easier to measure indicators should be selected, as well as easier techniques (ELISA instead of mosquito dissection for determining sporozoite rates)
- Use less high-tech interventions
- Carry out baseline; not realistic to capture data every year;
- Lack of epidemiological capacity (WHO services from Ugandan epidemiologist)
- Delete "No. U5s admitted with malaria fever that die of disease" as the Goal is inappropriate "Case fatality rate"… use a morbidity indicator rather than mortality
- Attachment 3 was sent Blank (Ug/GOSS), Uganda sent narrative instead.
- Need SMART objectives: Objectives 1&2 are not, quality of TA received could be questionable
- Include coverage targets in addition to those of delivery to reflect ownership
- Carry out "Community Surveys" every two years

**Kenya**

- Focus on IVM: Broad objective set, which was vague
- Definition of malaria burden unclear. Proposed use of fever as a measure of burden
- The main objective has too many sub-objectives; goals need to be consistent with the NMS-Plan and linked to objective
- IVM is integrated and so indicators measuring integration are required.
- Inappropriate indicators for Capacity Building objective

**southern Sudan**
Good objectives and relevant (SMART) indicators
Objectives simple and clear, but should be more specific with figures showing the baseline.
Focus should be on reduction of malaria-attributable mortality for under 5s rather than overall U5 mortality

**Discussion**
The peer review component of the group work highlighted significant problems with some of the proposals submitted to the GF Round 6.

Participants were informed that the TRP is briefed on grant implementation status and slow implementation can and has been used to reject proposals. It was suggested that countries could get information on their grant implementation status from the website or through their LFAs. A second suggestion was put forward that the GF could potentially be proactive in informing countries that they are under-performing and advise them that submitting a proposal may be unwise. This is under discussion at the GF and a compromise may be suggested whereby countries worried about the impact of low implementation status on future success of proposals initiate discussions with their LFA prior to proposal submission.

Further clarification was requested on the specific meaning of validation of country plans. In response it was stated that it will be a joint process between the country partnership and the global partnership, an approach that has been successfully adopted by the TB community since it was first formed.

A proposal was made that the GF consider funding certain essential components of proposals, even if the full proposal is not accepted. The example of Burundi being supported to roll out ACTs in one funding round, but then not receiving a grant in round 6, putting the sustainability of the new treatment policy in jeopardy. Another example quoted was if a country received

funding for IRS in one proposal, but subsequent proposals failed, the country could be left vulnerable to high mortality and the risk of epidemics if IRS discontinued due to lack of resources. In HIV, even where a proposal fails, the GF continues to support the government in providing treatment of individuals on ARVs. It was also noted an appeal had been launched in Dakar for the GF to classify ACTs as life-saving medicines, support for which cannot simply be stopped in subsequent funding rounds. UNITAID may also act as a safety net for supporting countries that changed treatment policy, scaled up and then were unable to secure subsequent funding.

### *7.4.4 Country Validation Exercise*

The following countries considered themselves ready to participate in the 1st phase of the proposed validation exercise:

Zanzibar, Tanzania mainland, Ethiopia, southern Sudan (following further gap analysis), northern Sudan, Uganda, Kenya, and Rwanda

Three countries proposed delaying their participation until the second phase, namely: Eritrea, Somalia, and Burundi

More detail was requested on the format for and the likely participants in the planned donor harmonization meeting and whether the meeting would likely result in more new money being made available from new donors. The response was that the meeting was likely to include both current donors and those with an interest in becoming involved in financing for malaria. Participants were informed that there could be no guarantees that validated plans and gap analyses will result in 100% funding, however, it will guarantee that countries will no longer be required to change a validated plan in order to chase funding.

## ***7.5 Day Five – Friday 24th November 2006***

### *7.5.1 Filling the Gaps and Next Steps – James Banda*

James commenced Day Five proceedings by commending participants on the good discussions held throughout the week on harmonisation processes and stated that this process represents a significant and important moment for countries and partners as the global partnership has promised that it is serious on harmonisation.

James repeated his earlier observation that with only 3 years remaining to reach the Abuja targets, this was a perfect time period over which to prepare operational plans and implement them to achieve those targets. As regards harmonisation at country level using gap analysis processes, James stated that it was important for country partnerships to realise that the proposed gap analysis is not just to support applications for future GF grants, but should be seen as an opportunity to further develop national programmes with national and international partners. The need to focus also on programme management and systems issues was emphasised, as was the need to ensure that the capacities of other partners are maximised (private sector, NGOs, other ministries, etc). Funding sources appear to be keen to harmonise funding for malaria in support of clear, harmonised national plans, and the gap analysis and validation exercise should be seen as a key opportunity to strengthen country programmes' negotiating power with global partners, and ultimately to secure funding to fill the identified gaps.

### *7.5.2 EARN Annual Review and Planning Meeting – Melanie Renshaw*

Melanie convened a plenary discussion appropriateness, suitability, and format of the EARN meeting in light of WHO's decision to hold a joint annual planning meeting for both the Eastern and Southern Africa regions of WHO-AFRO. Participants were reminded that a questionnaire

evaluation of EARN, including the annual meeting, had been carried out in 2005, and this supported the continuation of the EARN annual meeting, however, this evaluation was conducted prior to the decision by WHO to hold the combined ESAMC meeting.

Some of the responses received from the floor are summarised below:

The annual EARN meeting was still considered to be a useful meeting, as it is different from WHO-led meetings, principally through the encouragement of a broader participation of partners, many of which are not represented at the ESAMC and other similar meetings. Eritrea was a vocal supporter of the EARN meeting, as it is unable to attend many international meetings, but always attends EARN, as it is considered to be one of the most important meetings in the malaria calendar.

There was a call for an even greater emphasis and focus on helping countries to solve some of the technical and operational challenges faced in implementing their programmes. While the broad range of subjects presented was generally welcomed, it was felt that this left too little time to discuss some of the implications, especially in key areas such as ways to manage the flow of fake antmalarial medicines onto the market in Africa, before the situation becomes as serious as that seen in Asia.

Several participants proposed that the meeting may no longer be required to be held over a full five days, with some of the technical updates being left to the joint ESAMC meeting instead. It was suggested that as many of the issues raised by countries had also been raised at the ESAMC meeting, then the agenda of future EARN meetings could at least partially be driven by the recommendations and action points of the ESAMC meeting, as well as inputs from country programmes, in order to minimise overlap. A useful suggestion was made in relation to the timing of the next meeting, which it was proposed could be scheduled to facilitate participating countries to undertake a peer review of GF proposals prior to the submission deadline.

### *7.5.3 Conclusions, Recommendations and Action Points – John Silver*

Issues and recommendations arising during the meeting were presented and discussed and final consensus on wording was reached. See Section 7 above.

### *7.5.4 Meeting Evaluation*

Participants were requested to provide comments on the organisational and logistical aspects of the meeting, including the venue, agenda, etc. Participants were also asked to grade the sessions on a scale of excellent, average and below average.

Table 6: Results of meeting evaluation

| | Excellent | Average | Below Average |
|---|---|---|---|
| **Meeting Sessions** | | | |
| Country presentations | 26 | 0 | 0 |
| Technical updates | 22 | 6 | 0 |
| Gap Analysis | 13 | 15 | 0 |
| Harmonisation and partnership | 17 | 10 | 0 |
| Technical quality | 16 | 7 | 0 |
| Variety of topics | 17 | 5 | 0 |
| Relevance | 16 | 5 | 1 |
| Worth the trip? | 16 | 5 | 1 |
| Overall | 12 | 11 | 0 |
| **Meeting Organisation** | | | |
| Accommodation | 2 | 14 | 12 |
| Food | 8 | 15 | 5 |
| Meeting Room | 1 | 15 | 12 |

### *7.5.5 Closing Ceremony*

Guests of honour at the closing ceremony included the Deputy Minister of Health, Zanzibar, Mrs Shawana; the Principal Secretary of the Ministry of Health, Zanzibar, Dr M. Jiddawi; national programme manager, Abdullah S. Ali; the WHO Representative, Zanzibar sub-office, Dr Noor Mohammed; Halima Mwenesi representing NetMark and the EARN Co-ordination Team; John Paul Clarke representing the World Bank; and James Banda of the RBM Secretariat

The Principal Secretary informed participants of the tremendous successes that have been achieved in Zanzibar in driving down malaria, which have now been validated by scientific studies and data. The Principal Secretary congratulated Abdullah S. Ali and all of the malaria control workers involved in the programme, and ensured them all that their efforts are recognised and appreciated by the Ministry of Health. The Principal Secretary reminded the Zanzibar NMCP of the need to bear in mind that Zanzibar is situated close to Dar-es-Salaam, resulting in high volumes of traffic between the islands and the mainland, with potential risks for the importation of malaria cases and parasites to Zanzibar. For this reason, the NMCP cannot afford to be complacent and will continue to need the generous support and resources of development partners in order to continue to drive down malaria. The Principal Secretary closed his speech by extending an invitation to all participants to take the time to explore some of the tourist attractions of the island of Zanzibar.

ANNEX 1

**SPEECH BY THE HONOURABLE MINISTER OF LABOUR, YOUTH WOMEN AND CHILDREN DEVELOPMENT ON THE OCCASION OF THE OFFICIAL OPENING OF THE EASTERN AFRICA RBM NETWORK (EARN) ANNUAL REVIEW AND PLANNING MEETING ZANZIBAR BEACH RESORT**
**20TH -24 November, 2006**

EXECUTIVE SECRETARY OF THE RBM PARTNERSHIP BOARD
THE UNICEF COUNTRY REPRESENTATIVE
THE WHO COUNTRY REPRESENTATIVE
UNICEF SENIOR HEALTH ADVISOR (MALARIA)
NATIONAL MALARIA CONTROL PROGRAMME MANAGERS FROM EARN COUNTRIES
REPRESENTATIVES OF PARTNERS
DISTINGUISHED INVITED GUESTS
LADIES AND GENTLEMEN

It is an honour and a privilege for me to be invited to officiate the opening of the Sixth Eastern Africa Roll Back Malaria Network (EARN) Review and Planning Meeting. Firstly, I would like to take this opportunity to congratulate the Eastern Africa Roll Back Malaria Network (EARN) for the decision of choosing our spice Island to convene this important gathering. I say thank you so much and welcome you all to the Spice Island and to the Sixth EARN Annual Review and Planning Meeting for 2006.

Secondly, let me recognize the presence of representatives of our partners as well as colleagues from the UN System. Indeed, this good participation is a testimony of the importance all of us have accorded to the malaria problem in our countries.

Distinguished ladies and gentlemen
As we all know, this annual review and planning meeting is organized annually to enable our countries to look back over the past year on how we fared in the fight against malaria. Malaria affects the majority of people in many Africa countries and thus it exerts the biggest burden on our socio-economic development processes. Malaria is responsible for up to 3 percent retardation in GDP growth annually in Africa. By its very nature the disease is also closely associated with poverty, affecting the most vulnerable in our society, especially in rural areas.

While acknowledging that malaria affects us all, it is important to note that the problem is more serious to the children under the age of five years and to women who are pregnant. Available statistics indicate that one child dies from malaria in every 30 seconds that go by. That is to say about one million of them die annually from the disease. This being the case, Malaria still remains the leading cause of death for the majority of children in Africa.

Distinguished ladies and gentlemen
I am quite pleased to learn that since its inception EARN has achieved great successes in establishing an effective mechanism for offering in a cost -effective manner, timely and quality malaria response services needed by countries in the Eastern Africa Sub-region. Moreover, It is commendable to note that all countries supported by EARN have so far received one or more global fund grants for malaria. In addition, most countries have now completed their policy alignments to introduce effective malaria control interventions and every member country has developed key systems and strategies aimed at scaling up these interventions.

Distinguished guests, ladies and gentlemen.
On its part, the sub-region has also acted positively on the reduction and in some cases on total removal of taxes and tariffs that affect effective implementation of malaria control interventions. It is also worth mentioning here that the principle of partnership on which EARN is established, has truly been put into practice in our sub-region. In the past few years, partner

countries in this Sub-region have realized genuine cohesiveness and have adopted a common approach in charting the way forward and in allocating resources where they could have maximum impact. The issue of comparative advantage has been fully realized in the region and most of our countries are poised to roll back malaria. With these achievements, there is no doubt that a larger number of our member countries in the Sub-region would be able to score highly against the Abuja targets scheduled for reporting in 2007. We in the East African Sub-region feel proud of these achievements and are very pleased to note that other sub-regional networks are being established on the basis of our EARN model.

Distinguished guests, ladies and gentlemen.
In conclusion, please allow me to pay tribute to you all for your dedication to this noble task of malaria prevention and control in our sub-region. I urge all our colleagues who are charged with the responsibility of implementing malaria programmes and managing the roll back malaria partnerships to work diligently to save the lives of our people.

At this juncture, let me take this opportunity to kindly ask all participants from outside Zanzibar to spare some of your time while you are here to learn the experience of Zanzibar in fighting malaria. Zanzibar Malaria Control Programme has some how been able to reduce malaria cases in the islands. Besides, I have been told that Zanzibar is implementing one of the good model programme among the EARN countries. Please see what you can learn and exchange from the Zanzibar experience in combating malaria.

Distinguished guests, ladies and gentlemen.
With these remarks, I now have the pleasure to declare the Sixth Eastern Africa Roll Back Malaria Network Annual Review and Planning Meeting for 2006 officially open.

Karibuni Zanzibar and enjoy the hospitality of the people of these famous historical spice islands.

Thank you for your kind attention.

ANNEX 2: SIXTH EARN ANNUAL PLANNING AND REVIEW MEETING AGENDA

**Zanzibar: 20-24 November, 2006**

| Time | Theme and presentations | Presenter | Facilitator |
|---|---|---|---|
| Day One November 19 | Arrival and settling in | | CC |
| | Registration | | CC |
| Day Two: Monday November 20 | | | |
| 08.30–09.00 | Session 1: Opening Ceremony (JC) | | |
| 09.00–09.10 | Objectives | | JC |
| 09:10–10:15 | Introductions and opening ceremony | | Abdullah Ali |
| 10.15–10.45 | Tea break | | |
| 10.45–11.00 | Review of the agenda | | JC |
| 11.00-17.50 | Session 2: Country Presentations (JC) | | |
| 11.00-11.20 | Zanzibar | | |
| 11.20-11.40 | Eritrea | | |
| 11.40-12.00 | Kenya | | |
| 12.00-12.20 | Tanzania | | |
| 12.20-13.00 | Discussion | | |
| 13.00-14.00 | Lunch | | |
| 14.00-14.20 | Rwanda | | |
| 14.20-14.40 | Uganda | | |
| 14.40-15.00 | Ethiopia | | |
| 15.00-15.30 | Discussion | | |
| 15.30-16.00 | Tea break | | |
| 16.00-16.20 | Burundi | | |
| 16.20-16.40 | Somalia | | |
| 16.40-17.00 | Sudan I | | |
| 17.00-17.20 | Sudan II | | |
| 17.20-17.50 | Discussion | | |
| Day Three: Tuesday November 21 | | | |
| 08.30-10.30 | Session 3: Harmonisation and partnerships (JC) | | |
| 08.30-09.00 | RBM: The change process-An update | JB | |
| 09.00-09.20 | EARN Progress Report | JC | |
| 09.20-09.50 | EARN Regional Summary | RO | |
| 09.50-10.20 | Recommendations from the ESAMC meeting | JN | |
| 10.20-11.00 | Tea Break | | |
| 11.00-13.00 | Session 4: Commodities Supply (HM, MR) | | |
| 11.00-11.30 | An overview on new prevention products | Birkinesh Ameneshewa | HM/MR |
| 11.30-12.00 | An overview on new antimalarials | Peter Olumese | HM/MR |
| 12.00-12.50 | Country Experiences: Procurement and Supply master plans – Ethiopia and Burundi | | HM/MR |
| 12.50-13.30 | Panel discussion – procurement GFATM & pooled and global subsidy issues: GFATM, UNITAD/IDPF, WB, UNICEF | | HM/MR |
| 13.30-14.00 | Lunch Break | | |
| 14.00 – 15.00 | Session 5: Malaria Epidemiology (GT/HM/Bruno) | | |
| 14.00-14.30 | Introduction to Epidemiology and Malaria Burden | James Tibenderana | MC |
| 14.30-15.00 | Indoor Residual Spraying | Birkinesh Ameneshewa | WHO |
| 15.00-15.20 | Pros and Cons of IRS in different epidemiological & implementation settings | Albert Kilian | |
| 15.20-15.30 | Discussion | | |
| 15.30-16.00 | Tea Break | | |
| 16.00-17.30 | Session 6: Zanzibar Country Session | | |
| 16.00-17.30 | Showcasing Zanzibar partnership progress | Ali | NMCP |
| Day Four: Wednesday November 22 | | | |
| 08.00-09.30 | Session 7: Malaria M&E Indicators | | |
| 08.00-08.40 | Presentation on use of indicators in proposal preparation – experiences with GFATM: S. Sudan & Kenya | NMCPs | JB |
| 08.40-09.10 | Improving the use of malaria indicators | Bernard Nahlen | GFTAM |

| Time | Theme and presentations | Presenter | Facilitator |
|---|---|---|---|
| 09.10-10.00. | Panel discussion on three ones (one harmonized M&E system) | GFATM, WB, PMI | EARN |
| 10.00-10.30 | Tea Break | | |
| 10.30 -13.00 | Session 8: private Sector (RO/GR/GT/HM) | | |
| 1030 - 1035 | Introduction | Des Chavasse | |
| 1035 - 1050 | Addressing the Challenges of delivering ACT in the private sector | Ricki Orford | PSI to coordinate |
| 1050 - 1105 | Promoting Rational Use of ACTs in the Private Sector | James Tibenderana | MC to coordinate |
| 1105 - 1120 | Discussion | Chavasse | |
| 1120 - 1150 | WHO video: Dealers in Death | WHO /RO | PSI WHO. |
| 1150 - 1205 | Integrating delivery of ACT in the public, private and community in Rwanda | PNLP | PSI |
| 1205 - 1220 | Delivering ACT as part of an expanded ADDO program | TFDA / NMCP Tanzania | MSH |
| 1220 - 1230 | Discussion | Des Chavasse | |
| 13.00-14.00 | Lunch Break | | |
| 14.00-17.00 | Session 9: General Updates (JC) | | |
| 14.00-14.40 | Emergencies including gaps and supplies | Tom Ogwal | IFRC |
| 14.40-14.55 | Discussion | | |
| 14.55-15.55 | Diagnostics including harmonisation outside of malaria | J. Carter and D. Bell | AMREF/WHO/ WPRO/TDR |
| 15.55-16.10 | Discussion | JN | |
| 16.10-16.25 | Tea Break | | |
| 16.25-16.45 | Malaria and nutrition-related deficiencies | Prof. Gary Gleason | JC |
| 16.45-17.00 | Discussion | JC | |
| Day Five: Thursday November 23 | | | |
| 08.00-13.00: | Session 10: GAP analysis and Country Technical support Needs (MR/JN) Templates & instructions for group work from JJ | | |
| 08.00-08.30 | Dakar meeting report and the next steps in country support | JB | EARN |
| 08.30-09.00 | Introduction to Gap analysis tools and processes and identification of areas for EARN support in 2007 | MR | |
| 09.00-10.00 | Introduction to country group work | JB | |
| 10.00-10.30 | Tea Break | | |
| 10.30-14.00 | Group work on gap analysis ctd | Facilitators | |
| 13.00-14.00 | Lunch Break | | |
| 14.00-16.00 | Session 11: Priorities and support needs (JC) | | |
| 14.00-16.00 | Group work continued | HM | |
| 15.30-16.00 | Tea Break | | |
| 16.00- 17.00 | Plenary discussion –broad overview of gaps and needs – 3 slides per country for 5 minutes per country | HM | |
| Day Six: Friday November 24 | | | |
| 08.00-15.00 | Session 12: Closing Ceremony | | |
| 08.00-09.30 | Filling the gaps, and next steps | EARN | |
| 09.30-10.00 | Discussion on country support | EARN | |
| 10.00-10.30 | TEA Break | | |
| 10.30-11.30 | Recommendations | | Rapporteur |
| 11.30 – 12.02 | Evaluation and next meeting | | |
| 12..00-13.00 | Closing ceremony. | JC/Ali | |
| 14.30-15.00 | Next meeting | JC | |

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