



**Minutes of the
Third Meeting of the RBM Partnership
Working Group on Scaling-up Insecticide Treated Materials
(WIN)**

**Basel, Switzerland
1-3 March, 2006**

**This Meeting Record should be accompanied by the Meeting CD
containing all referenced documents and presentations**



Summary

Observations and Recommendations for the RBM WIN Working Group

- Change the full name of the WG to the ***RBM Partnership Working Group for Scalable Malaria Vector Control***.
- Establish a sub-group concerned with rational scaling-up of indoor residual spraying.
- Update the RBM Partnership Consensus Statement on ITNs and IRS.
- Prepare Working Group statements for integrated ITN delivery with routine ANC and EPI.
- Address mechanisms for advocacy, e.g. through the RBM Board and WHO GMP, as well as strengthen links with the Sub-regional Networks.
- Expand relationships/links beyond the WHO GMP to other WHO programmes such as Child Health, Maternal Health, and TB/HIV.
- Follow-up with WHO to help distribute their forthcoming policy papers on IRS to the Partnership.
- Identify alternative and more rapid publishing arrangements for WG products.
- Obtain and share minutes of all other RBM WG meetings with the WIN membership (Chair).
- Invite UNAIDS to attend the next WG meeting.
- Send a delegate to the Dakar *Technical Support for Country GFATM Processes* meeting.
- Develop better criteria for deciding on mass retreatment of existing ITNs vs. new LLIN replacement.
- Observed need to improve use of ITNs given during campaigns when there are preexisting non-treated nets in the house through improved communication and follow-up.
- Explore delivery mechanisms for the long-lasting net retreatment in addition to campaigns, e.g. through ANC/EPI or from static retreatment centers.
- Understand what happens when a campaign coincides with growing ANC programmes, such as in Kenya.
- LLINs need identification labeling and the WG should explore how this could be achieved.
- Continue to compile “lessons learned”, e.g. for the use of ITNs or vouchers delivered through routine services and campaigns; how the mixed approach can be accomplished.
- Improve the visibility, accessibility and use of WIN products.

Observations and Recommendations for the RBM Secretariat and RBM Board

- Producers of LLINs encourage and welcome an active and efficient facilitation of procurement provided by Malaria Medicines and Supplies Services (MMSS) Unit of the RBM Secretariat.
- The Working Group observed that the idea of pooled financing and procurement of LLINs that was raised by countries at the High Level Forum in Paris last year poses significant challenges for both countries and for partners, and requests MMSS to monitor and advise on best practices for resolving this bottleneck.

Observations and Recommendations for RBM Partners

- The Working Group supports the Paris Declaration on Aid Effectiveness and the need for a ‘Three Ones’ for malaria.
- The Roll Back Malaria Partnership partners need to provide technical support for countries intending to apply for GFATM Round Six as required. This technical support can come from the partners who can engage RBM sub-regional networks coordinated and strengthened by MMSS.
- LLIN supply may already exceed country and global systems capacity to procure and deliver.
- It is recognized that the tendering, procurement and remittance procedures are a major bottleneck for many countries.
- More implementation research needs to accompany scale-up models. For example for the mass distribution model, a birth history survey in Lawra District, Ghana might elucidate the mortality impact of high level saturation of ITN use over several years; Impact measures need to start soon in Papua New Guinea.



Day One - 01 March 2006 Taking Stock of WIN Progress

Session 1 - Opening

Don de Savigny of the Swiss Tropical Institute and the Chair of the WIN welcomed participants and thanked them for their enthusiastic response to the call for the meeting. Over 48 were in attendance (Annex 1) while a further 11¹ had sent apologies and regrets that they could not join this time. Despite these absences, the attendance made it the largest annual meeting of the Working Group so far. His welcoming remarks recapped some of the major developments, achievements, opportunities, and challenges for scaling up ITNs that have emerged over the previous year and also reaffirmed the growing interest in scaling up indoor residual spraying (IRS) for malaria vector control to set the stage for the importance of the meeting. The WIN was established in 2003, but many of the members have been working together in previous working groups including the earlier RBM Technical Support Network for ITNs and the TDR ITN Task Forces. The Chair was pleased to point out a number of new faces that had joined the Group and participants were then asked to introduce themselves to each other. This confirmed that a rich and sufficient quorum of representatives of all constituencies (Endemic country Malaria Program Managers, Multi-laterals, Bilaterals, NGOs, Private Sector, Research and Academia) was present. Special note was made of the attendance of specialists in IRS who were attending for the first time. In the introductions the Chair, and Co-Chair, Kabir Cham of WHO, Geneva, expressed the Working Group's appreciation to the RBM Partnership Secretariat, UNICEF and particular thanks to the Private Sector for sponsoring the attendance of the endemic country representatives, and thanked all the others for covering their own expenses to attend². The Chair expressed the Group's gratitude to the Executive Secretary of the RBM Partnership, Dr. Awa Coll-Seck, for her staunch support of the Working Group and her presence at the meeting and invited her to officially open the meeting.

Welcome remarks from the RBM Partnership – Awa Coll-Seck

Dr. Coll-Seck officially opened the meeting. First of all, a moment of silence was observed for Dr. Mary Ettlting from the United States Agency for International Development, who, after a long struggle with cancer, passed away on 23 February 2006 at her home in Seattle, Washington. Dr. Ettlting's compassion and commitment to malaria control will remain an inspiration for all of our efforts.

Dr. Coll-Seck pointed out that the RBM WIN is a good example of how we can learn together, and as a mechanism for functional partnership. Dr. Coll-Seck conveyed assurance from the RBM Board regarding its support for the WIN along with other active working groups. Two representatives of the Board were present at this meeting (Gerhard Hesse and Chris White). She emphasized that the RBM Secretariat will do its best to support the working groups including the Monitoring and Evaluation Reference Group, the Malaria in Pregnancy Working Group (represented in this meeting by Juliana Yartey) and the Finances and Resources Working Group. She pointed out that the Working Group on Finances is looking at global subsidies (such as an air travel tax) for ACTs, but this may also soon be expanded to a subsidy for ITNs.

Dr. Coll-Seck appreciated the WIN as a very active and productive group pointing out that the WIN has been very strong in giving guidance to GFATM and countries, especially for Round 4 with regard to the mixed model for ITN distribution. This will be very important for Round 6: countries will need guidance in IRS and ITNs; they will need a clear vision on how to scale up. The needs of countries should remain our focus; we need to make a difference in the countries and in the communities. She also recognized the efforts of Don and Kabir for organizing the meeting and thanked the Swiss Tropical Institute for hosting the meeting. She officially declared the meeting open and wished it success.

¹ Apologies from: Matt Lynch, Gene Brantley, Allan Schapira, Birkinesh Ameneshewa, Pierre Guillet, Axel Kroeger, Pierre Carnevale, Rick Stekete, John Chimumbwa, Stefan Hoyer and William Hawley.

² Private Sector sponsorship of endemic country constituencies was provided by Bayer Crop Science, SiamDutch Mosquito Netting Co. Ltd., Sumitomo Chemical, Syngenta, and Vestergaard Frandsen Disease Control Textiles.



Meeting objectives, expected outcomes and agenda – de Savigny

First, the Chair reminded the group of WIN Purpose Statement which was reviewed and re-endorsed:

WIN Purpose Statement

To provide the RBM Partnership with strategic advice on best practices for scalable malaria vector control interventions in pursuit of the RBM Global Strategic Plan and Millennium Development Goals.

The Chair also drew the Working Group's attention to the **RBM Partnership's Global Strategic Plan**, issued since our last meeting, with regard to its statements on how the Partnership sees malaria vector control and personal protection. The Global Strategic Plan emphasizes six values that guide us:

- Select proven technology appropriate to the local setting;
- Target most vulnerable (biological and socioeconomic) groups;
- Reach high coverage quickly;
- Sustain high coverage;
- Ensure coverage is with high-quality products and services;
- Develop and optimize prevention technologies and delivery mechanisms.

It was found that these values remain consistent with the WIN's Strategic Framework and work plan.

Meeting Objectives

The proposed meeting objectives were reviewed and endorsed:

1. To take stock of the WIN progress and products
2. To examine the changing landscape for ITNs and Vector Control.
3. To make decisions and plans to harmonize and accelerate partnership support for scaling-up with emphasis on translating guidance for both ITNs and IRS scale-up

RBM's Global Mission for Working Groups

- Synthesize evidence and build consensus on strategic issues
- Disseminate consensus statements to RBM Sub-Regional Networks
- Promote use of consensus statements by members
- Advise RBM Board on best practices for scale-up
- Update strategic frameworks regularly
- Develop and promote implementation of WG work-plans
- Provide *ad hoc* guidance and backstopping to SRNs

RBM WIN Terms of Reference for assisting ITN and Appropriate Vector Control National Scale-up

- Facilitate consensus on strategies
- Synthesize knowledge and advocate best practices
- Facilitate capacity of RBM SRNs to respond
- Identify emerging implementation research questions
- Contribute to ITN M&E Indicators
- Promote public private partnerships and targeted subsidies for provision of nets and insecticide



Members were asked to brainstorm on what they hoped the expected outcomes of the meeting should be for them. These included:

- Decisions and a work-plan to harmonize and accelerate partnership support for scale-up;
- Decisions on how to translate technical guidance into strategic programming and plans;
- Examination of some of the constraints of LLIN supply and the evolution of LLIN technology;
- Clarification on what we scale up and acknowledgement of where the bottlenecks are – is there a need to scale up ITN production? Is there a supply gap or a demand gap? For example, there is currently a large stock of LLINs in a warehouse in Dubai;
- Indoor Residual Spraying (IRS) and how this may become part of the Working Group activities;
- Malaria in Pregnancy – how can WIN accelerate the scale-up of ITNs, especially through ANCs;
- Identification of the most vulnerable – we struggle with targeting mechanisms, for example mapping projects with ANC coverage. Some countries, including Kenya, are beginning to map parameters such as poverty, which could be overlaid with malaria endemicity maps;
- Can the WIN provide better guidance for country-level planning on integration of different delivery mechanisms – free delivery, social marketing, commercial sales, etc;
- Coordination of ITNs and IRS for long-term malaria control. Will there be a transition phase from IRS to ITNs? Can ITNs be a 'safety net' if IRS programmes are delayed;
- Discussion of net re-treatments with the longer lasting technologies such as the KO Tab 123.

The proposed agenda (Annex 2) was then checked against these aspirations and it was felt that they could all be addressed within the agenda which was then adopted.

General discussion raised the following points:

On evidence and strategy:

- “Evidence for Advocacy”, rather than “Advocacy for Evidence”. We need to articulate evidence for our strategies and tactics.
- Plea for precision – e.g. the term ‘mixed approach’ is vague. We need to give more detailed guidance for campaign distributions integrated with routine systems. This issue of ‘precision’ could be a litmus test for the WIN products.
- Need for more data - there is still little evidence for many of our strategies, for example, how “Quick Wins” fit in with sustainable routine programmes. We need standard indicators that can be compared in countries with different contexts, for example West Africa vs. East and Southern Africa.
- We need to further develop the strategic framework and explain how the ‘mixed approach’ can be practically accomplished; we need to catalyze Monitoring and Evaluation, including the identification of the most vulnerable and mapping high transmission ‘hot spots’. Most have agreed that the polarized debate of ‘free vs. commercial’ is over. Both have their time and place. We need to move from *Strategic* to *Tactical* issues.

On harmonization:

- We need to hold up and emphasize the Paris Declaration and the Yaoundé Call to Action. Some donors have preferred strategies that may bypass national plans and programs. We need to give more guidance to the donor partners.
- Harmonization is the key. Countries need strategic and technical support but will not wait before moving forward with their programs. In March 2006 there will be meeting in Dakar on harmonization – countries urgently need guidance now for scaling-up for impact. WIN’s input will be very important for this harmonization process. More detailed guidance is especially urgent for choices regarding IRS programmes.



Quick overview of WIN progress and products: - Cham

Kabir Cham provided an overview of the Meeting Binder and the progress in the 13 months since the second WIN meeting in Nairobi. He pointed out that despite continuing uncertainty over RBM Board approval of the 2005-2006 Workplan, and the lack of formal funding of the plan, that the WIN had persevered through the efforts of the partners to deliver on most of the planned products. The WIN also held a well attended *ad hoc* meeting at the MIM Conference in Yaoundé and the minutes of that meeting were included in the meeting binder. Kabir foreshadowed the Satellite Group Reports by outlining what was completed and in progress. This is covered in detail later in the minutes.

Highlights and late breaking news from partners – de Savigny

The WIN Chair moderated a session aimed at engaging everyone early in the meeting in reflecting on recent successes in order to generate a sense of the momentum being experienced in scaling up. Some key highlights and recent developments mentioned by the Group are listed below and organized thematically.

Recent results from countries

- **Tanzania.** Very recent 2004/05 DHS results from Tanzania show that there has been a substantial child and infant **mortality reduction** nationwide (24% and 33% respectively) since the previous DHS in 1999. In some specific pilot areas there has been a cumulative 55% decrease in all-cause mortality as well as a 55% decrease in malaria specific mortality in an area of health system strengthening plus moderate ITN coverage and improved diagnostic and treatment services. This suggests that an important share of the national mortality reduction could be consequent to malaria reduction.
- **Malawi.** Substantial under-five and infant **mortality reduction** similar to Tanzania has also been seen over the past five years in the recently released DHS results for Malawi. There will be several new DHS and MICS results in 2006 that will provide a great deal of information relevant to malaria impact.
- **Ethiopia.** More than 3 million ITNs were delivered between September and December 2005, with post-distribution surveys showing more than 80% use. Most of the distribution was through integrated outreach programs. In 2006, approximately 13 million ITNs will be delivered with a target of 2 ITNs per household. The government intends to distribute up to 20 million ITNs with funding from **GFATM, World Bank, UNICEF** and **CIDA**. There is a wide range of partners, including **UNICEF, NetMark, PSI**, and **IFRC**, with different delivery mechanisms used in different regions. The World Bank is also intending to support the review of the **IRS** program in Ethiopia.
- **Swaziland** has been using ITNs for the past two years, using a Geographic Information System to map data to households, to see where exactly where ITNs have been distributed. With this database they are developing better reporting and analysis systems.

LLIN Technology up-date

- **NetMark / USAID** organized a meeting in September 2005 in Nairobi to introduce the technology developed by NetMark, Bayer ES, Siam Dutch and Anovotek to interested African net manufacturers and to highlight the possibilities of technology transfer. All available technologies available and under development were presented.
- **Syngenta** and **BASF** have also bought into the technologies and presented their respective textile-insecticide-chemistry systems.
- Process validation will be finalized by second half of 2006
- The International Finance Corporation (IFC) recently considered setting up a special fund for African companies for LLIN technology transfer if there is serious interest to transfer the technology investment into equipment.
- In Tanzania there is an initiative coordinated by **NetMark** and **PSI** (funded by **Dfid**) to transfer the technologies to the local industry; initial technical consultations have been completed



- Some new LLIN candidates are under **WHOPES** evaluation. Information on these can be found on the WHOPES website (<http://www.who.int/whopes/en/>). There are remaining questions related to legal issues and equivalence to existing WHO specifications.

LLIN Testing

- The new testing guidelines for LLINs developed by **WHO** are specific for factory pre-treated LLINs, but do not apply to insecticides for in-field ITN treatment or bundling to render conventional nets or ITNs to become “LLINs”. These are *insecticides for the impregnation of mosquito nets to achieve longer wash resistance*.

LLIN stocks

- Since December 2005 **Vestergaard-Frandsen** production capacity reached 3 million LLINs per month; since February 2006 production exceeded 3 million per month; investments have been made to reach 5 million per month by the third quarter of 2006. Production time has been reduced to 4-6 months. However, from the 3 million per month currently produced, only 2 million are selling (at the time of the meeting). The High Level Paris Consultation reported a demand for 50m to 80m LLINs per year, but Vestegaard-Frandsen is only able to move about 25% of that number and the excess stock is accumulating in warehouses at costs to the manufacturer.

New LLIN production

- **Tana Netting** was launched in Thailand, and is entirely focused on candidate LLIN production. They are now producing 300,000 per month but have a target production nearly tripling to 10m per year. Discussions are ongoing whether to transfer this candidate LLIN technology to other factories or to scale-up production at the Tana facility itself. This product awaits WHOPES recommendation.

LLIN local production

- In **Ghana**, local tailors are sewing lace material into nets. **DfID** is supporting treatment of these new nets being sewn in the markets. **LSHTM** and the **Nogouchi Institute** are also helping to test the treatment of these nets with the **KO Tab 123**. It was pointed out that, especially in West Africa, these types of locally made nets are often taken up by the lowest economic quintile.

Session 2.a – Updates from the RBM Partnership

RBM Partnership Board Update – Hesse, White

Gerhard Hesse and Chris White reported that the Board has endorsed the Yaoundé “Call to Action”, which received good press coverage. There have been a number of immediate outcomes from the Yaoundé Board Meeting, including the renaming of the WHO RBM Department to the WHO Global Malaria Program (GMP), making it easier to differentiate from the RBM Partnership. Second, Cameroon has replaced DRC as a country representative and Minister Awono Olangouena has officially committed to represent Cameroon on the RBM Partnership Board.

The Board has subcontracted the business consulting firm, the Boston Consulting Group (BCG), to examine a reengineering of the RBM Secretariat, and help develop a better shared understanding of its roles and responsibilities, build consensus on ways forward and set expectations around the process for change. The first phase of this process is being funded by the Bill and Melinda Gates Foundation. The entire cost of the project is \$3m with \$1m from BCG. In addition to the Board all the constituencies need to be committed to this process of examination and reengineering.

The Board Chairman called a subcommittee meeting in Abuja 6-7 February, where it was agreed to;



1. Re-define the scope and deliverables to include the RBM Board and Partners as well as the Secretariat. This will be more than just a report; Boston Consulting will also facilitate the change process.
2. More clearly define frameworks, strategies, accountability and systems.
3. Define next steps in galvanizing the Partnership's constituency's engagement and support for the change process advocated by the Board.
4. Stipulate a time-line. Boston Consulting will deliver a preliminary report 17 May 2006, at the next Board meeting before the World Health Assembly. A final product will be available by September 2006.

Discussion points raised on the RBM Board update. It was noted that the Board's Statement at Yaoundé was silent on the role and value of working groups. It was clarified that the working groups were discussed, and it was merely an oversight that this was not included in the final communication.

The Board's letter to the WHO DG has not been answered. The private sector constituency feels strongly that a real partnering is extremely necessary and that we will not succeed without the partnerships.

RBM Partnership Secretariat Update – Teuscher

A large focus of the current work of the Secretariat will be to harmonize activities at the country level in light of the Paris Declaration. Recent ITN distributions through campaigns have given urgency for RBM to focus on service integration. We are looking at a "Global Strategic Plan" with the ideal of promoting the "Three Ones: one plan, one coordinating mechanism, and one monitoring and evaluation plan" at country level. All partners can work under this plan to provide countries with clear technical guidance and financial support.

There are seven core functions of the RBM Partnership Secretariat:

1. Global advocacy and communications on resources, commitment and accountability
2. Collate and disseminate information
3. Coordination through the development of the global partnership work plan
4. Support sub-regional networks
5. Information to support supply chain management
6. Country level support to ensure adherence by partners to the Three Ones
7. Support RBM Partnership mechanisms (Board, sub-committees, working groups and sub-regional networks).

Discussion points raised on the RBM Secretariat update. The BCG review process needs to look at each level, country, regional and global. The Board needs to be reviewed; there may be some structural issues preventing the partnerships from moving forward. We need to separate the issues related to country, regional and global partnerships.

The Boston Consulting Group (BCG) is attending the meeting to learn and better understand the working groups and to discuss the change process. The overall cost of this 6-month project is \$3m, with 1/3 of this coming from BCG's own investment and 2/3 from the Bill and Melinda Gates Foundation. BCG joins the WIN meeting to help the partnership move forward and improve, not to question the sub-regional networks or working groups, but to determine the real bottlenecks to forming a more effective partnership.

Technical Support for country GFATM processes. At least 12 countries need technical support to address bottlenecks in the ITN plans being funded through GFATM. Likewise there will be a need to provide technical support for countries intending to apply for GFATM Round Six. This technical support should first come from the partners and can engage the RBM sub-regional networks, and then, if required from other partner organizations through the SRNs. MMSS has undertaken a mapping of technical assistance needs in countries benefiting from GFATM grants. Together with the Partnership Country Support team, it is MMSS's role to coordinate and drive the process with SRNs and partners. Of note is the fact that countries have not demonstrated an understanding of a strategic



relationship with (leading to reliance upon) SRNs for procurement-related technical assistance/support. As a result, programmes turn to the Partnership's leadership when in desperate need of technical assistance, and often, MMSS is asked to assist.

RBM Partnership Eastern African RBM Network (EARN) – Renshaw

Melanie Renshaw reported on the EARN on behalf of John Chimumbwa who was unable to attend. There are four sub-regional RBM networks in Africa: EARN is hosted by UNICEF's East and Southern Africa Regional Office (focal point – John Chimumbwa), WARN, the West and Central African Regional Network is hosted by UNICEF's West Africa Regional Office (focal point - Claude Rwagacondo), SARN, the Southern Africa Regional Network will be hosted by SADC but is currently hosted by WHO SAMC (interim focal point – John Govere, WHO/ICP) and CARN, the Central African Regional Network is hosted by WHO/AFRO (focal point – Dr Celestin, WHO/ICP, with strong NGO support especially from IFRC). Funding proposals to support network operations have been developed by SAMC (to the Bill and Melinda Gates Foundation) and CARN (to EU).

EARN is a large and very active Sub-regional Network, with more than 45 partnering organizations. The EARN is co-ordinated by a coordination team consisting of elected members from WHO, UNICEF, Malaria Consortium, PSI, NetMark, AMREF and RPM+. They have been strongest in support for ITN programmes (with the above partners plus Malaria Consortium and IFRC). There has been somewhat less support for IRS but now that the USAID-Research Triangle International has come in for support to Uganda and Tanzania, this may increase. In collaboration with the Malaria Consortium there has been dissemination of 'best practices' for Home Management of Malaria, Rapid Diagnostic Tests and Retreatment Campaigns.

The purpose of EARN is to coordinate partners support on technical and operational issues for going to scale with effective malaria control in Eastern Africa. The functions of the EARN sub-regional network include:

- Joint work planning (countries and partners). The joint work plan is based upon the needs and priorities identified by countries during missions, meetings and other communications
- Advocacy and promotion of global/regional policies
- Information/experience sharing amongst countries and partners
- Facilitate scaling-up best practices including how to address bottlenecks
- Support implementation of countries' strategic plans and GFATM proposals

Activities are co-ordinated through the joint work plan, and in 2005, over 90% of the work plan activities were supported.

EARN has had severe funding problems, with 95% of the financing has come from the EARN partners, especially from UNICEF. There is a need for more secure, long-term funding. Over 90% of the 2005 work plan activities were supported.

There is a shift in country technical assistance requests over the last three years, from policy and strategy support to more hands-on implementation,

Needs for 2006 include:

- Support for integrated programming (Rwanda, Kenya, Djibouti, Sudan, Somalia)
- Capacity for monitoring insecticide resistance and resistance management
- M&E of coverage and utilization
- Support for vector control including IVM needs assessments and implementation in Uganda and Zanzibar (where there is larviciding in addition to ITNs and IRS)
- Intercountry visits and experience sharing

EARN provides a forum to disseminate information through its information management function, undertaken by Malaria Consortium e.g. information packages on case management or ITNs. EARN



can and does disseminate WIN products. It is currently preparing an evaluation document to show where and how EARN adds value.

RBM Partnership West African Regional Network (WARN) – Rwanda

Claude Rwanda reported on the work of the WARN which has been recently revitalized. WARN met in February 2006 to develop a work plan for 2006. It appears that the partners are not yet fully committed to a regional coordination. Most of the partners are focused on individual countries where the plans often differ greatly. WARN is helping to build capacity for a core group to help the countries develop a strategic plan and vision. There will be annual meetings with country program officers and partners to develop a common plan of action. The private sector and the Malaria in Pregnancy Working Group are very committed to WARN.

RBM Malaria in Pregnancy Working Group – Yartey

Juliana Yartey reported on the work of the Malaria in Pregnancy Working Group and what it needs from the WIN. The control of malaria in pregnancy requires a 3-pronged strategy – IPT, ITN and Case Management. IPT policy has been adopted in 31 countries, and is being implemented in 22 countries, 10 of them on a large scale (5 in West Africa, 5 in East and Southern Africa). ITNs are included in malaria control policy in most countries, but more information is needed on the status of implementation. Case management is being implemented in all countries.

Role of MIP Working Group:

- Advocacy
- Facilitate consensus on key strategic issues
- Flag key issues (research, programmatic, etc)
- Synthesize information on best practices, disseminate and advocate for adoption and implementation for scaling up
- Mobilize partners to address bottlenecks
- Ensure information flow and exchange with other RBM working groups, Partners and countries

Key issues for controlling malaria in pregnancy:

- IPT: availability of antimalarials in ANC is limited with frequent stock outs.
- *Plasmodium falciparum* resistance to SP is significant, particularly in East Africa, with no alternative drugs available. A WHO technical consultation in October 2005 recommended continued use of SP for IPT in areas with levels of resistance up to 50%.
- Case management and availability of appropriate drugs
- ITNs/LLINs: ITNs are available but distribution to pregnant women through ANC is limited. There is limited knowledge among programme managers of LLINs, especially in southern Africa. The benefits of ITNs to mother and child are undeniable; the infrastructure exists and could reach up to 70% of pregnant women and therefore infants.
- Research issues: effectiveness of IPT in areas of SP resistance, use of ACTs and other drugs in pregnancy operational research on mechanisms to deliver all 3 interventions in hard-to-reach areas, uptake of IPT2, search for new antimalarials and ACTs, clear strategies for controlling MIP in areas of low malaria transmission
- M&E: guidelines to be finalized in the next few weeks; MIP indicators need to be incorporated into maternal registers and cards and the HMIS
- Collaboration between National Malaria Control Programmes and Reproductive Health / Making Pregnancy Safer for policy, planning, logistics, procurement, training, service delivery and resource mobilization) essential for reaching pregnant women.
- Regional networks (MIPESA and ROAPAG) of country programme managers have proven effective. There are plans to broaden scope beyond MIP in the future.
- There is need for increased commitment to control malaria in pregnant women as well as in children.



The presentation concluded with the quote “Women are not dying because of diseases we cannot treat. They are dying because societies have yet to make the decision that their lives are worth saving” Dr. M. Fathalla.

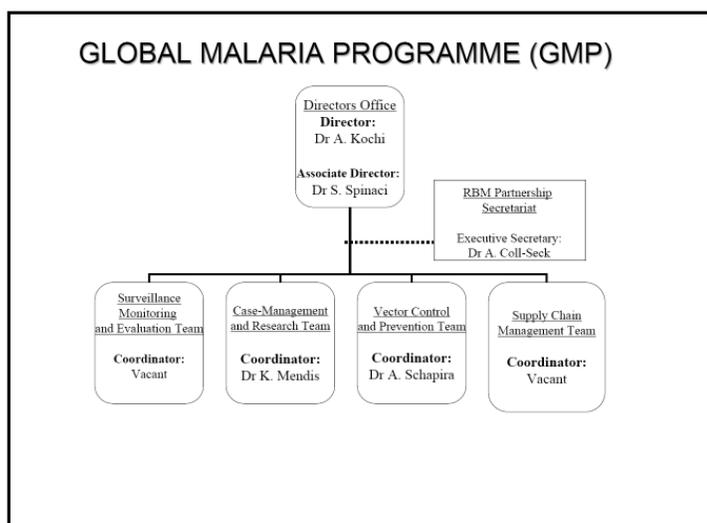
Discussion points raised on malaria in pregnancy update. Within Africa, more than 70% of all pregnant women in more than 70% of the countries have at least one visit to the ANC with the exception of few countries such as Ethiopia and Chad which have lower coverage at about 20-30%. ANCs thus offer an excellent system for getting ITNs into households. One of the strongest links between the malaria and HIV/AIDs programs is through the Malaria in Pregnancy sub-regional network. ITNs should be a core component of the PMTCT programs (as well as the home-based care programs for persons living with HIV/AIDs). There are some concerns of adverse drug reactions for pregnant women who may be on prophylactic co-trimoxazole, SP/IPT and ARVs. Countries of East and Southern Africa involved with the MIPESA network seem to have fairly good coordination of MIP and the HIV/AIDs initiatives. At the global level, the MIP Working Group works very closely with the HIV/AIDs initiatives, especially for PMTCT. A Cochrane systematic review of the efficacy of ITNs and nets during pregnancy will be released in April 2006 and disseminated to the WIN membership.

WHO Global Malaria Program – Cham

A new malaria structure was introduced by WHO on 24 February 2006. The former WHO RBM Department has been renamed the Global Malaria Programme (GMP). The new structure, shown at the right allows for malaria to be addressed as a global issue, encompassing all partners, as well as to respond to its mandate on policy and technical leadership. The new Director, Dr Arata Kochi, has two messages for the WIN: 1) He’s been adequately briefed about the positive contribution of this group and wants to learn more about WIN; 2) He’s prepared to go the *extra mile* to ensure there is an effective link between WIN and WHO.

WHO will produce four products over the next few months:

1. A WHO Policy Paper on IRS will be produced in March, 2006. This will include current experience and evidence and the cost of implementing IRS based on early experiences.
2. A WHO Study Group, in which some members of WIN participated, will release a Technical Report Series document on Malaria Vector Control and Personal Protection in different eco-epidemiological settings, in March, 2006.
3. A WHO Technical Consultation on the use of DDT for Disease Vector Control, to be held in Brazzaville in June 2006.
4. A WHO Regional Committee Meeting will be held in Addis Abba in September 2006, and will include a discussion on IRS.



Discussion points raised on the WHO Global Malaria Program. Questions were posed why the RBM Partnership Executive Secretary reports below the level of the WHO GMP Associate Director. In the organogram there is a new Supply Chain Management Team. Is this intended to replace the RBM Partnership’s MMSS Unit? The role of the new GMP Supply Unit is thus unclear in relation to the



Partnership's MMSS. MMSS was created by the partners as a neutral body; in the past it had been managing the Coartem® supply. The RBM Executive Secretary responded that this will now be handled by the GMP Supply Chain Management Team because of the agreement between Novartis and WHO. Nevertheless, MMSS will continue to be engaged with forecasting and as a clearing house for supply issues. The 'country support' team has been discontinued and its functions decentralized so that GMP can focus on technical issues.

While the exact nature of the links between the WIN and the new WHO GMP needs to be worked out, there were comments that the WIN should also have links to other programmes such as TB/HIV, Child Health, Maternal Health, etc. We need to expand service delivery through these other programmes. While relatively narrow partnerships work well and produce deliverables, they may not necessarily foster integration.

Broad partnerships, such as those represented by the WIN are necessary because of the complex and intractable nature of malaria and its effects on society and on other 'non-malaria' agencies. While the WHO GMP has a role for technical leadership, there is also expertise outside of WHO, particularly in the area of implementation experience, which can contribute to the overall global efforts.

With the renaming of the WHO Roll Back Malaria Department to the GMP there is now a clearer distinction between the GMP and the RBM Secretariat. The RBM Secretariat continues to be hosted and receive administrative support from the WHO. Strategy, and Monitoring and Evaluation do fall into many of WIN's partner activities, which include GMP. There is still ambiguity about the position of the WIN. The RBM Board's letter to the WHO Director General has not been answered; the WIN is developing work plans with uncertainty concerning its boundaries. In essence, the WHO GMP functions to answer the "What" in terms of technical strategies while the working groups such as the WIN function to answer the "How" in terms of operational tactics. In reality there is not a clear boundary between these. We need to understand if there is a changing role for WIN, a shift from a function of working on the "how" questions of scaling-up to simply more of a dissemination function. The WIN partnership is working well; it is possibly partnerships on other levels that are working less well.

The WIN should focus on the 'How' to do, not the "What" to do, which is more the work of WHO. The working groups are to share operational experiences, while the technical issues, such as seasonality, system requirements etc. are the realm of WHO. Some felt that WIN should be more involved with the 'guidance on implementation issues' and make a clear separation from WHO's role of technical guidance.

The role of WIN is to assemble and share evidence, operational experiences and best practices. Guidance for countries on how to operationalize progress are things that the country partnership WHO/National Programme Officer and the Sub-regional Networks should be doing. The world is not well informed about some of these successful experiences that are accruing.

Session 2.b - Updates from the RBM WIN Satellite Groups

Strategic and Tactical Frameworks – Renshaw

- **2nd Edition of Scaling up Insecticide-treated Netting Programmes in Africa: A Strategic Framework for Coordinated National Action.** This product was completed in August 2005 and is available electronically on the RBM Partners web site at <http://rbm.who.int/partnership>. French translation is underway but this delays print publication of the English version.
- **Targeted subsidy strategies for national scaling up of insecticide-treated netting programmes – Principles and approaches.** This product is also completed and available on the Partners website and in





- final print form in both French and English.
- **Targeting Insecticide-treated Net Subsidies: A Framework for Programme Managers in Africa.** This document is in layout with the printers and in translation for French.
 - **Insecticide-treated bed nets and curtains for preventing malaria (Cochrane Review).** The full review along with an extracted policy brief will soon be posted on the RBM Partners website.
 - **Protecting all pregnant women and children under five years living in malaria endemic areas in Africa with insecticide treated mosquito nets.** This document commissioned by WHO is being prepared by members of the WIN. It was first presented at the High Level meetings in Paris in September 2005 and has been circulated to the WIN for comments and inputs. Some members have done so. Other members are still encouraged to send their comments to Jayne Webster, Jo Lines and Allan Schapira.
 - **Advocacy for WIN Products.** The advocacy sub-group has been waiting for the above products before it can begin work. Clearly the passive approach of posting documents to the Partners web site is not sufficient and some sort of push approach, making better use of the Sub-Regional Networks is required. SRNs can also feedback to us on product impact. Melanie Renshaw has also been collecting IEC materials for ITN / LLIN promotion to support scale-up for compilation and sharing. Anyone who has useful material should contribute it to Melanie.
 - **Synergy with other RBM Working Groups.** The WIN Chair and Co-chair have been trying to attend the MERG and MIP working group meetings. But it is not always possible to schedule this for all Working Groups (Case Management, Communications, and Finance). Therefore WIN members should express interest in being listed to be approached to attend particular Working Groups where they have an interest to represent the WIN if required. It was agreed that the Chair will obtain and share minutes of all WG meetings to the WIN membership.
 - Many countries are in the process of writing their 'second generation' 5-year strategic plans. It will be important to ensure that lessons learned and documented by the WIN are incorporated into these new plans.
 - The next EARN meeting is scheduled for October in Zanzibar; SAMC will be in July, likely in Malawi, but that is to be confirmed; the WARN meeting will be in Guinea-Bissau in November. These meetings provide opportunities for the dissemination of WIN products



Discussion points arising from the Strategic and Tactical Frameworks Report. It was noted that there are sometimes long delays in publishing documents through the WHO system, and the WIN partnership might look to other means of publishing, for example, through UNICEF. Some of the participants asked if it were possible to receive electronic versions of the documents before the hard copies are officially printed. The information can become outdated so quickly. We need to find a way to get the documents out quickly or they will lose much of their advocacy value.

Enabling Environments and Best Practices - Alilio

The Enabling Environments and Best Practices satellite group has benefited by the leadership provided by one of the WIN partners (NetMark) in following through with all aspects of the WIN Workplan for the satellite group.

Taxes and tariffs. NetMark, with support from USAID, has developed a computer model to estimate the impact of taxes and tariffs reduction on national health and economies. This model has been used in the training of 20 countries that are trying to resolve the problem of taxes and tariffs. TT have been removed or reduced in all NetMark supported countries through NetMark efforts alone or with partners. Five countries effected policy changes/activities on TT with direct NetMark support in the 2005:

- Ghana implemented a VAT policy decision that had not been effected
- Ethiopia removed the 15% VAT on nets, and tariff was reduced from 35% to 5%.
- Nigeria reduced tariffs from 40% to 20% following regional TT meeting
- Sierra Leone is embarking on the dissemination and implementation of policy change



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- Gambia has apparently also reduced/removed TT but had not until provoked by NM announced the policy change

NetMark maintains a comprehensive list of tax and tariff rates throughout Africa, available on the website: <http://www.netmarkafrica.org/Policy/tools.html>

Increased LLIN production capacity. NetMark reported strong progress on assistance to net manufacturers and potential net manufacturers under the following headings:

New process for LLIN production opening of plant in Thailand. NetMark developed a new process for the treatment of finished nets with long-lasting insecticide that can potentially use any effective chemistry and be easily transferred to any net manufacturer or be set up to treat unfinished nets independent of manufacturing. NetMark partnered with Bayer and Siam Dutch Mosquito Netting to develop and test the new process using the Bayer KO-123 chemistry. Siam Dutch used their own resources to build a new state-of-the art factory, which was opened in September 2005. Optimization of process underway with trials using other WHOPES-recommended insecticides and African textiles

Technical assistance provided to 12 African manufacturers in quality control. NetMark conducted a quality control workshop with all known African net manufacturers in Johannesburg, providing all participants with a handbook covering all aspects of quality production, sampling, testing, etc.

Presentation of technology to African and international manufacturers. NetMark presented the new process to a group of RBM partners, including 12 African net manufacturers, during a meeting in Nairobi. This was a first step in the potential transfer of this process that converts conventional polyester net production to LLIN production as an in-factory or stand-alone process. All other holders of LLIN technologies were invited to the meeting as well to present their approach to African and international manufacturers, as a way to provide them all with options and in an effort to facilitate dialogue and multiple partnerships. NetMark has begun testing Syngenta and BASF long-lasting treatments with their new process, which will lead to technology options for any manufacturer wishing to adopt this approach.

Establishment of African Net Manufacturers Association. A group of African net manufacturers announced the launch of an association with the goals of: creating more local jobs; educating the public on malaria; improving employee environmental standards; advising MOHs on standard regional policies; working closely with donor agencies on buying nets from Africa for Africa; maintaining quality control standards set by the association; enhancing relations among members; and, monitoring and sharing information with its members on new products and technologies. An interim steering committee was established and membership dues were agreed upon. An initial staff member will be recruited and posted at Polo Industries in Nairobi, and the election of a Board of Directors will be conducted at the MIM meeting later in the year. Subhash Sonigra of 4 Polo will serve as the interim chairman of the board that includes Nnamdi Orji of Rosies Textiles/Nigeria; Gary Dodd of Nets & Ropes/Zimbabwe, Olajide Williams of Mabol/Nigeria; and Antony Haji of TMTL/Tanzania.

Expanding production. NetMark organized a study tour for Ethiopians to visit net manufacturing operations in Kenya as a first step in planning for their own local production. Eight Ethiopians representing four commercial companies and the Federal Ministry of Health traveled to Mossnet Ltd. in Nairobi to study the details of setting up a mosquito net sewing operation. The trip was sponsored by the USAID Regional Economic Development Services Office for East and Southern African (REDSO). No mosquito nets are currently made in Ethiopia; however, there is growing interest among the public and private sectors to create a local net production capacity.

LLIN Satellite Group - Cham

The WIN WHO partner has taken the lead on this Satellite Group. Kabir Cham reported on behalf of Pierre Guillet who was unable to attend.

New ITN / IRS related products currently submitted to WHOPES:



- Alphacypermethrin LN (coating technology) - BASF successfully passed WHOPES Phase I; now under Phase II evaluation
- Alphacypermethrin LN for incorporated LLIN (Duranet®), monofilament high density polyethylene - Clariant and Clarke Mosquito Control has been submitted to WHOPES
- Deltamethrin LN for incorporated LLIN (Netprotect®), monofilament high density polyethylene, Insect Intelligent Control, France has been submitted to WHOPES
- Deltamethrin LN for LLIN (a coating technology; Dawa Plus®) - Tana Netting Co., Ltd. (SiamDutch) has been submitted to WHOPES
- Deltamethrin LN for LLIN, Netto Group, Thailand has been submitted to WHOPES
- Deltamethrin WT+binder, Bayer, Germany (KO-123) has been submitted to WHOPES
- Lambda-cyhalothrin LN for LLINs, Syngenta, Switzerland has been submitted to WHOPES
- Lambda-cyhalothrin CS for IRS, Syngenta, Switzerland has been submitted to WHOPES

New treatments

- Another long lasting dipping kit being developed by industry soon to be submitted to WHOPES
- A new procedure for laboratory and field testing of LLINs has been finalized and published. The new procedures for LLIN distinguish between “regenerating nets” and “non-regeneration nets”. For laboratory and field testing of nets needing regeneration, the time between washes must exceed regeneration time.
- [Guidelines for laboratory & field-testing of long lasting insecticidal mosquito nets- WHO/CDS/WHOPES/GCDPP/2005.11](#) (provided in hard copy and on the Meeting CD-ROM) involves a new test method in addition to WHO cones which tend to under-estimate efficacy of pyrethroids (especially those irritant properties like permethrin)
- Additional test methods are being undertaken within a WHOPES multi-centre study.

Research on insecticide resistance

- Pyrethroid resistance seems more widespread than expected; no evidence as yet that kdr resistance significantly reduces efficacy of ITNs; impact of other resistance mechanisms may be different but evidence is still needed.
- Combining different insecticides on nets: Treating walls with one of the 6 recommended pyrethroids and roof with a non-pyrethroid insecticide (OP or carbamate) significantly enhances the killing effect of ITNs against both malaria vectors and *Culex*, maintains efficacy of ITNs against pyrethroid and carbamate resistant malaria vectors restores efficacy against resistant *Culex*. There are suggestions that this mosaic treatment approach might be effective in preventing selection of insecticide resistance. Important questions still to be addressed, e.g. technology having the same long-lasting effect with two different insecticides; human safety as non-pyrethroid insecticides are involved.

Specifications

- Existing WHO specifications for netting materials has been updated and simplified
- Report being finalized
- LLINs: specifications for PermaNet being developed;
- Specifications for Olyset being finalized
- Current recommendation:
 - For any new LLIN submitted to WHOPES, specifications should be developed before recommendations are made on its use

Information on LLIN products in the pipeline can be found on the following website:

http://www.who.int/wer/2002/products_under_evaluation_apr06.pdf

Discussion points raised on the LLINs Satellite Group Report. *WHOPES testing.* The new WHOPES testing guidelines were for pre-treated LLINs and not for long lasting treatment kits such as the KO-Tab 123. We are now working with two sets of data requirements for LLINs, one for the cone test and one for the tube test. This ambiguity between “cone” and “tube” opens up confusion for countries. It was also noted that the time between washes was important.



Implementation Research, Monitoring and Evaluation Working Group – Lines

Implementation Research

A prioritized list of implementation research questions was developed based on our last meeting and circulated at the Yaoundé Conference. We await the ground-truth of this list via the Sub-Regional Networks before passing it to the Strategic Frameworks and Tactics Satellite Group for advocacy to the research community.

Monitoring and Evaluation

Tools

- There is a new document with M&E tools from the RBM Monitoring and Evaluation Reference Group (MERG); GFATM has also developed a new Tool Kit.
- Work is being done to develop better information on “populations at risk” including for the Mekong Region and for peri-urban areas of Africa. Dr. Kara Hanson is also working on a costing framework for ITN scale-up experiences.

Household surveys

- DHS and MICs are nationally representative but too infrequent to measure scale-up progress. They are not primarily designed or intended for ITN-specific M&E questions and not easy to influence.
- These surveys can provide basic coverage – who uses a net? However net history & source (all nets should be marked - are they?), which nets cover which people?. This would help answer the question, do more nets = more use?
- However there are timing Issues: Dry season vs. Wet season – DHS vs. DSS? There is extended risk at end of rains and we need to focus on coverage during most vulnerable times.
- The Standard Denominator is all children under 5. Should we focus on 4 to 24 months in most intense areas? 8 to 48 months in areas moderate intensity?
- Malaria in Pregnancy – is ANC too late and should we focus on girls earlier, and even before pregnancy? Is there a fear of insecticide and avoidance of ITNs during pregnancy?
- Other survey questions include: Usage behaviour within the family (SE Asia). Are ITNs preferred? Give new ITNs or treat untreated nets? Campaigns vs. Routine delivery? Covering children born between campaigns, ANC vs. EPI, etc.? Net life and duration of protection. ITN, LLIN, untreated nets, net types
- Programme Issues include: Costing Framework; Sustainability; Indicators of Supply Constraints; Effectiveness of Targeted Partial coverage; Mass effect is NOT saturated with ITNs; Modelling; IRS vs. ITNs vs. other vector control measures; Difficulties / biases in comparing IRS vs. ITNs; Short-term effectiveness vs. coverage; Mass effect vs. personal protection; and size of the randomisation unit.
- An example was given from Cambodia villages at risk and ITN coverage segmented by distance from the forest. There was evidence that prior net coverage was already high and that the program should concentrate on net retreatment, rather than distribution of new ITNs.

Discussion points raised on the Implementation, Monitoring and Evaluation Satellite Group Report. Marking nets with identification numbers for quality control and tracing. There were a number of suggestions that ITNs be marked with serial numbers, which would enable tracing. For example, it would be helpful to know if the ITN found in a home was from an ANC distribution or a mass free distribution during an immunization. There may be some confusion if the nets are marked with a date in the factory, and then sit in a warehouse for a number of years before distribution.

Session 3 – Updates on key supply and demand issues – Witherspoon & Panadero

Lorenzo Witherspoon from RBM Partnership Malaria Medicines and Support Services (MMSS) and Pablo Panadero from UNICEF presented an update on current supply and demand issues.



By December 2006, LLIN production should have increased to:

	Production (06/05)	Production (12/05)	Expected production (12/06)
Vestergaard Frandsen	18.5 m/year	30 m/year	43.5 m/year
Sumitomo	4 m/year	13 m/year	16 m/year
A to Z	1 m/year	7 m/year	14 m/year
Total	23.5 m/year	50 m/year	73.5 m/year
	2 m/month	4.2 m/month	6.1 m/month

Sample ITN	LLIN - Type 1	LLIN - Type 2
Weight per bale (125 nets): 60 kg	Weight per bale (100 nets): 42 kgs	Weight per bale (40 nets): 29 kgs
Volume per bale (125 nets): 0.260 cbm	Volume per bale (100 nets): 0.1894 cbm	Volume per bale (40 nets): 0.127 cbm
Nets per 40' container: 37,000 pieces	Nets per 40' container: 36,900 pieces	Nets per 40' container: 16,800 pieces

Procurement Challenges

Logistics: Weights, Volumes & Costs: The Shipment and Distribution of nets are a major logistical challenge. Depending, for example, on the type of LLIN and final destination, international transport, shipping and handling costs (ITSH), inland transportation, testing and inspection costs could increase final net cost exponentially.

N.B. Different types have different weights and volumes

MMSS Quantification and forecasting

- Why?
 - National Programmes need to know exposure ratio
 - RBM Partners & Partnership need to know where prevention opportunities exist
 - Donors need to know the cost of malaria prevention in countries
 - Net Manufacturers need to harmonize production with actual needs
 - Need to define buffer stock levels by manufacturers
- How is it achieved?
 - Inputs from RBM partners
 - Inputs from National Programmes and governments
 - Inputs from NGOs and Social Marketing entities with STRONG field presence
 - Inputs from institutional buyers
 - Inputs from Procurement Agents

Common procurement bottlenecks faced by countries

- Prolonged process of remittance of funds
- Lack of dynamic supply chain experience/capacity
- Cumbersome national fiscal policies
- Inaccurate forecasting of needs
- Political issues
- Poor planning

Way forward

Intensify collaborative partnership with all stakeholders

- Encourage manufacturers to continue scale-up, and enhance proactive approaches to smooth supply
- Identify weaknesses in capacity, and propose and coordinate requisite TA
- Improve speed of disbursements to countries following approval of PSM Plans, thereby validate the demand.

UNICEF Procurement 2000– 2005

Forecasting.

More than ever it is necessary to provide timely and accurate country level forecasting:

- To sustain scaling-up of production by current manufacturers;
- To provide incentive to new entrants in the market;



- To ensure timely deliveries for large quantities (campaign distribution)
- To book quantities prior to actual placement of orders
- Plan/forecast joint campaigns with immunization activities
- Nets are very bulky products in large numbers, and a logistical nightmare to distribute at the last minute – if nets are available!

UNICEF's Procurement strategy

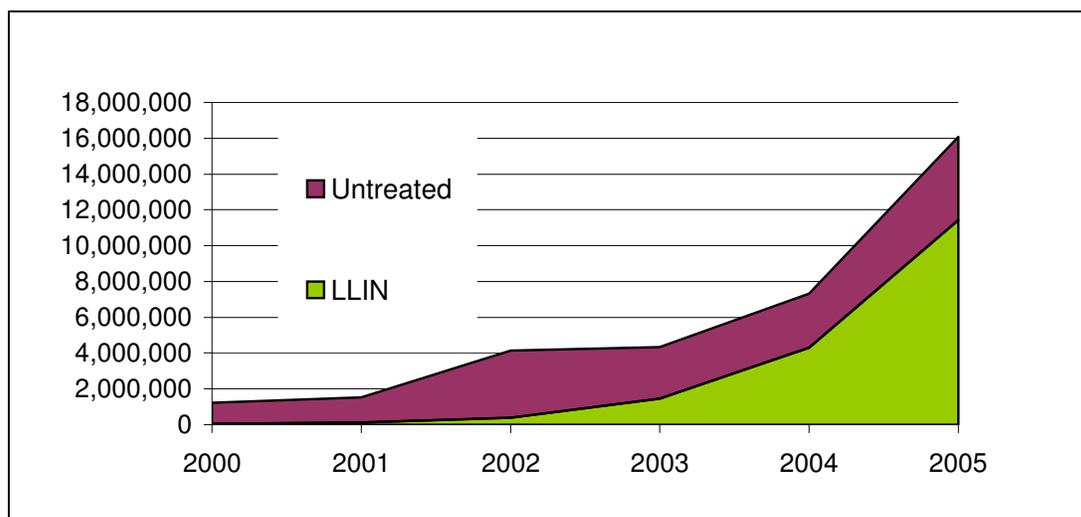
Net Procurement

- Only WHOPES recommended or UNICEF QA approved nets;
- Establishment of Long Term Fixed Price Agreements with manufacturers, based on forecasted quantities;
- Warehousing in Dubai;
- Production capacity booked (currently up to October 2006)

Net Allocation in the event of shortfalls in availability of nets

- Emergencies;
- Target/Prioritise vulnerable groups;
- Countries which have provided forecasts of quantity requirements;
- Early order placement

UNICEF Quality Control of mosquito nets



Pre-qualification of net manufacturers prior to procurement;

- Factory inspection
- Pre-delivery inspection before shipment on every order
- Lab testing on net consignments;
(total cost of lab test and PDI is about 0.26% of the PO value);
- Organized workshop for UNICEF net manufacturers;
- Standardizing and development of uniform testing tolerances & procedures;
- Quality feedback to the manufacturers
- Lab tests on the net fabric
- Mechanical test: To ensure all mechanical properties of the net material are as per WHO specified standards.
- Chemical test: To verify insecticide type and strength are in accordance with WHO guidelines. Ensure the insecticide retention is minimum 80% after first wash.



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- Bioassay Test: Due to the time period required and the high cost of these tests, it is not practical for the procurement process.

Fighting malaria together with partners

Roll Back Malaria Partnership: focus on the supply side

- Support to activities of MMSS (Malaria Medicines Supplies and Services)
- Forecasting of country needs, funding available and financial gap
- Sources & Prices of Selected Products for the Prevention, Diagnosis and Treatment of Malaria
- Measles / Malaria Partnership Group - "Quick Win" through immunization campaigns
- WHO, IFRC, UNF, ARC, CRC, CIDA, GFATM, UNICE. The Measles / Malaria Partnership Group estimates that 53.3 million ITNs could be distributed to children <5 years through all campaigns in 26 African countries during 2006. This could be accomplished at the cost of USD 373.1M, including USD 106.6M being international transport costs
- Public – Private Partnerships: Technology Transfer of LLIN production to Africa
- Acumen Fund, Exxon Mobile, Sumitomo Chemical, A to Z Textile, WHO and UNICEF
- A to Z started production of Olysets nets - a WHOPES recommended LLIN - in early 2004 in Arusha, Tanzania following a technology transfer from Sumitomo Chemical in Japan. The production capacity of A to Z has since then increased to over 200,000 Olysets per month.

Discussion points raised for supply and demand issues. This topic led to a thorough discussion of the concerns of the private sector supplying the product and the countries trying to procure.

The root problems now are in remittance of GFATM funds and bottlenecks in the country tendering and procurement procedures. Often the bottleneck is in the link between the Ministry of Health and the Ministry of Finance (MoF). While we recognize that the bottlenecks may be with the MoF or with taxes and tariffs, the health sector may not be in the best position to help. This may require more involvement of the World Bank as it often is responsible for the establishment of these finance and accounting systems in the first place.

A new problem has emerged.

The requested supply is now provided, but seems to exceed the pace at which the system can move this supply to the beneficiaries. Despite the fact that 40% of UNICEF orders from 2005 are not yet delivered, there is an accumulation of LLINs in storage awaiting distribution. One of the producers dramatically increased production to meet expected fulfillable demand – which turned out to be far less than projected (largely due to problems with the country procurement processes and financial remittance issues). There are now more than \$30m worth of LLINs in a warehouse in Dubai. Half of this stock is for an order in Kenya and waiting for the confirmation of the payment. There is a danger that some of the companies that took on debt to increase production may have to pass on extra storage costs, close down factories, lay off staff, and even face bankruptcy. This problem could be exacerbated when new LLIN factories open up before this 'distribution gap' is closed.

There had been earlier discussions among donors and ministers in Paris, for a temporary pooled central procurement system. Here a procurement agency would procure LLINs directly and have them delivered to the countries, rather than have the countries receive the money, and then have to put it through their own tendering and procurement boards. A number of countries preferred to receive the products rather than the money. It was ascertained that the GFATM, as donor, and, in recognition of the decision to ensure country ownership of activities, would undertake stakeholder surveys and serve as driver of such an initiative.

The countries at the Paris Meeting said that they preferred commodities over money. There was a call to do temporary pooled procurement now while building up national capacity, and then switch over to the country procurement processes. There is an issue of country ownership of the tendering and procurement process. Many other disease control commodities, such as vaccines, and Artemisinin-based Combination Therapies (ACTs) are centrally procured. It should be possible to do the same for



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LLINs. We need to get the commodities out. If we think that the country procurement process does not work, then we should be very clear in our recommendations for central procurement. Some may prefer external procurement, but there may be other interests that would like the procurement to be done in the country; the problem is not necessarily with the NMCP.

Even when procurement is done there quite often is a further “systems delivery bottleneck problem” and not just a “commodities procurement problem”. We need to help fix distribution systems and not just pour in more commodities that will back up in national warehouses.

Latin America and Asia are also demanding more LLINs – will this have an impact on supplies for Africa? There are many more factories in Asia that could be brought into production if they have the technology for making LLINs. It was noted by the commercial sector partners that technology transfer is not easy.

The manufacturer is also the ‘brand owner’, understands the requirements of the consumer and needs to ensure sustainability. The commercial sector partners could be called in to help with promotion during the campaigns.



Day Two – 02 March 2006

Taking Stock of Country Scale-up Experience

Session Four – Updates from National Scale-up Experiences

National ITN Scale-up Experiences

Introduction: Working Paper on Delivery Systems and Costs of Scaling-Up ITNs - Webster

Jayne Webster of the London School of Hygiene and Tropical Medicine introduced the Country Experiences day by reviewing the draft document: *Protecting All Pregnant Women and Children Under Five Years Living in Malaria Endemic Areas in Africa with Insecticide Treated Mosquito Nets* (Jayne Webster, Jo Lines and Lucy Smith). The central focus of this presentation was the operationalization of the RBM WIN Strategic Framework principles of “catch-up” (through rapid scale-up campaigns) and “keep-up” (through routine integration in long-term delivery mechanisms).

Distribution through EPI campaigns:

- Measles Vaccination Campaigns have static vaccination posts. These campaigns can rapidly deliver ITNs to large numbers of households. The resulting coverage is generally equitable immediately after the campaign, and often reaches those not covered by routine EPI. Children 0 to 8 months and pregnant women are normally excluded from such campaigns. It also excludes those in the inter-campaign period, usually several years. While the delivery during the campaign takes only a few days, the planning and preparation for the campaign can take several months.
- Delivery through Polio Immunization Campaigns is similar to distribution through measles campaigns, but these are generally door-to-door campaigns and target children 0 to 59 months. The door-to-door campaign style adds more logistical challenges for moving bulky ITNs; vouchers may help alleviate this.
- Retreatment Campaigns will remain important as 80% of the nets out there are untreated. Retreatment of existing nets can often be linked to Child Health Days or Child Health Weeks, which have become ‘routine’ in some countries and can be accomplished without the extra financing given to the measles and polio campaigns

Distribution through routine systems

- ANC offers good outlets for pregnant women and their newborn children.
- There is also the routine vaccination programme which targets children less than one year.
- These routine distributions can be either with direct product or vouchers, depending on the specific context of the distribution point – i.e. in remote areas with little market activity, it may be necessary to provide product directly, in areas with markets, vouchers may be easier to use.

When discussing the private sector we need to separate the ‘formal’ commercial sector – mostly in the urban areas where goods may be sold from shops, and the large ‘informal’ commercial sector, especially in West Africa, that may penetrate deep into rural areas. This informal commercial sector is where the poor access many of their nets.

Numbers and costs of ITNs needed.

For estimating the numbers of LLINs and the costs the following parameters were used. The median cost of delivering a net is \$2.73. If the cost of the LLIN is \$4.55, then the total median cost per LLIN delivered is \$7.28.



No. NETS NEEDED			
YEAR	SCENARIO 1 100% coverage of vulnerable population	SCENARIO 2 ANC & measles campaigns	SCENARIO 3 ANC, EPI & measles campaigns
2006	135,262,874	69,515,656	79,932,941
2007	26,205,756	33,581,586	44,170,023
2008	26,840,334	26,840,334	37,594,960
2009	71,356,796	27,483,724	38,398,303
2010	52,591,156	28,135,957	39,202,769
TOTAL	312,256,916	185,557,257	239,298,996

COST (at US\$7.28/ITN)			
YEAR	SCENARIO 1 100% coverage of vulnerable population	SCENARIO 2 ANC & measles campaigns	SCENARIO 3 ANC, EPI & measles campaigns
2006	984,713,723	506,073,974	581,911,813
2007	190,777,904	244,473,946	321,557,766
2008	195,397,632	195,397,632	273,691,307
2009	519,477,478	200,081,511	279,539,649
2010	382,863,616	204,829,767	285,396,158
TOTAL	2,273,230,351	1,350,856,829	1,742,096,692

Delivery channels for the hard to reach

Nets are bulky and their transportation is often difficult to these remote, hard to reach areas. Non-Government and Community-based organizations can often help to reach these populations.

Strategic combinations of delivery systems

- Sustained routine ANC / EPI as a priority
 - Vouchers or direct product...
 - not both in the same facilities
 - Consider urban rural differences
 - Strategic use of catch-up combined measles campaigns and (re)treatment
 - Evidence on delivery to the hard to reach

Strategic selection of delivery channels:

Current ANC / EPI coverage	Current ITN coverage	Current net coverage	Strategy
High (>80%)	High	High	Identify unreached
	Low	High	(Re) treatment campaign Identify unreached
		Low	Catch-up through ANC / EPI Identify unreached
Low	High	High	Identify unreached
	Low	High	(Re) treatment campaign Identify unreached
		Low	Catch-up campaigns

Integrated ITN “catch-up” in Campaigns (SIA, NIDs, etc).

Scaling up ITN Programs in Africa: Recent Findings from Niger, Togo and Ghana - Grabowski
Mark Grabowski provided updates on the national-scale campaigns in Niger and Togo, and the long-term follow up of the district scale campaign in Ghana.

In Niger, there was pre-existing high untreated net coverage. Therefore there was lower than desired use of the new ITNs after 900,000 were delivered. ITN ownership by wealth status was equal across all quintiles. The net package was opened when given to the caretaker in the hopes they would be less likely to just store them away. Niger showed that ITNs can be integrated into house-to-house polio campaigns; that integrated campaigns can succeed in areas with extreme poverty, poor health systems and challenging geography. Additional distribution and evaluations are pending in Niger



In Togo, where 904,500 LLINs were distributed through 1,340 fixed, outreach, and mobile posts with the help of 20,000 health workers & volunteers, 9 months post campaign:

- ITN coverage is high and equitable
- Pregnant women benefit from distribution to children
- ITN use is:
 - Higher in areas with higher insect biting
 - Higher in rural areas
 - Higher among those who have home visits
- Unexpected coverage:
 - ITNs are shared
 - Rational redistribution of ITNs
 - Focus on covering sleeping spaces rather than individuals

In Ghana, in a review of data 38 months after delivery, it was found that many of the children born after the campaign were still benefiting from the ITNs, even if they did not have an older sibling or mother who had received an ITN. There appears to be significant redistribution within extended families so that the very young children still benefit. It will be interesting to watch this in Kenya, where a preexisting high coverage through the ANCs will now be supplemented by a mass campaign through the measles immunization.

We should think about ITNs covering specific “sleeping spaces” within the household, rather than specific individuals. Therefore the lifespan of the ITN becomes even more important. From the Lawra experience in Ghana nets (confirmed to be 75 denier nets after the meeting) might last without wear and attrition for as long as three years. However it should be noted that since the campaign in Lawra district, UNICEF has given an additional 50,000 ITNs to the “Upper West” region, including Lawra. Looking at birth history for mortality impact assessment has not yet been done in Lawra District but could be important to determine given the high sustained coverage after three years.

The data for these mass distribution campaigns is convincing; now we will need to take this into account and adapt the framework for ‘keep-up’ routine delivery systems. The cost and the low rate of decay are important. We need more information on the lifespan of an ITN. The fact that we are now talking about replacement nets shows how far we have come in the past five years. Before we had large populations with no nets – and now we are talking about replacements.

How much can this EPI/ITN distribution become more of an endeavor of the country itself, without outside support for planning and logistics? Rwanda will be conducting such a distribution without outside support, Kenya is receiving some support and Sierra Leone will likely need support.

The country ownership for the distribution mechanism is important. Does the MoH really want it, or is it an outside force that is pushing the distribution strategy? Niger already had a culture of net use before the mass distribution, so there was a question of why not treat the already existing nets. The reason there was low usage of the new ITNs was that they already had nets, albeit untreated. Like the situation in Cambodia, are the smallest children getting priority for the newer and better ITNs?

Integrated ITN catch-up campaigns, Tanzania - Mwita

Dr. Alex Mwita, National Malaria Control Program Manager, Ministry of Health, Tanzania, provided the first Tanzanian experience with integrating ITN delivery with a measles immunization campaign.

National strategies and new benefactors. The Tanzania ITN policy is to work with the private sector and to promote some element of cost recovery on most ITNs. The focus is on distribution and ensuring that ITNs are a commodity that is available, and that people can afford it and get it when they need it. Large public subsidy for this is provided by a universally accessible high-value ITN voucher given to all pregnant women at first ANC contact for every pregnancy (with plans to extend this to EPI contact points).



The policy is clear, and all stakeholders had agreed to work with the “Three Ones” approach: one strategy, one coordinating mechanism, and one monitoring and evaluation plan. It is sometimes difficult when a new group comes in with a new externally determined strategy that does not fit. This was experienced following the January 2005 Davos World Economic Forum, when an apparent donation of \$1m for free ITNs was decided for Tanzania and routed through the GFATM. Countries must be prepared to deal with such philanthropic donations. The funds raised at Davos were to be managed by the GFATM for Tanzania. The GFATM asked AMREF Nairobi to organize a campaign in Tanzania. AMREF contacted Tanzania indicating that they felt this was not appropriate and suggested that the GFATM deal directly with Tanzania. Tanzania was then put under heavy pressure by the GFATM to accept this donation for campaign delivered free nets and not for the national nets program. The NMCP then, at short notice, made plans to integrate the delivery of 1 million USD worth of LLINs with an already planned and tightly scheduled measles immunization campaign. At the last minute, after the nets were ordered and public expectations raised by the Ministry of Health, it was revealed that only \$147,000 was actually collected and made available by Davos and the GFATM. Other partners then had to step in and absorb the debt.

Countries should be prepared to identify potential recipients of such as philanthropic donations such as institutional beds in orphanages, hospitals, or schools, or geographic areas currently out of reach of the current distribution mechanisms. We need to do a better job of disseminating success stories, so that new donors know that there are good systems to be supported, rather than deciding from a distance and acting in a patronizing way, as if there was no pre-existing plans, programs, structures and efficient mechanisms in place. Such mechanisms can actually be undermined by such behaviour. It was also pointed out that the way this event was handled was clearly inconsistent with the values expressed in the Paris Declaration on Aid Effectiveness.

Integrated ITN “keep up” in Routine Services (ANC, EPI+)

Routine Integration Processes & Opportunities - Goodman

Tracey Goodman from WHO EPI introduced the session on integrating ITN delivery with routine health services. She provided a wealth practical advice and suggestions and highlighted the following:

Current Processes to Support Linked Routine Delivery

- High-level Meeting held in Paris – September 2005
- Discussed the documents: "Protecting all Pregnant Women & Children under 5 years in Africa with ITNs" and "Framework of Strategic Options for the Integrated Delivery of ITNs with Immunization"
- Monthly ITN routine teleconferences are organized by MAL AFRO. These generated Country Profiles (inventory of status of national policy, delivery systems, and scaling up plans). Annual Measles Partnership Advocacy Meeting (<http://www.measlesinitiative.org/meeting2006>)
- Development and piloting of Integrated Child Survival Tally Sheet (check and record ITN use at immunization contact so year-round monitoring data becomes available).

Way Forward: Future Opportunities to Support Linked Routine Delivery

1. Better use of campaigns to support routine "keep up"

- Plan more proactively and use other campaigns (polio, MNT, YF, CHDs), not just ITNs but when suitable retreatment
- Proposed that malaria campaign support should include 5% for routine delivery support subsequent to the campaign
- Link with comprehensive multi-year planning (cMYP) process for GAVI. 10 AFRO countries must complete this in 2006 – including Kenya, Lesotho, Mali, Malawi, Mozambique, Rwanda, Swaziland, Zambia (draft), Tanzania/Uganda (completed)

2. More advocacy – among EPI and MAL national programme managers and agency technical staff

- Task Force for Immunization Meeting Feb 2006 (Brazzaville)
- Global Immunization Meeting March 27-29, 2006 (Geneva) (WHO/UNICEF/Partners)



- AFRO EPI Managers Meetings (Southern Block March 22-24, Lilongwe; East Block April 3-7, Mombasa; West Block?, E&S GAVI RWG April 11-12 Kampala)
 - At country level arrange joint ICC and CCM meeting and briefing.
 - Future harmonization of AFRO Inter-country Support Teams (IST) – Ouagadougou, Libreville and Harare
3. Develop Guidelines and Training Materials
- Urgently needed (draft AFRO Version?)
4. Strengthen monitoring and reporting for implementation
- Adaptation of EPI monitoring tools (e.g. child survival tally sheet, supply logistics, etc).
 - Explore incorporating into WHO/UNICEF Annual Joint Reporting Form (JRF)?

ANC National ITN Voucher Scheme – Brown

Nick Brown, the NATNETS Coordinator for the National Malaria Control Program in Tanzania presented an overview of the National Voucher Scheme. NATNETS is a long-term, multi-donor, multi-partner initiative to promote the national use of ITNs through three complementary approaches: 1) the ITN Cell in the National Malaria Control Programme (funded by Swiss Agency for Development & Cooperation); 2) the Tanzania National Voucher Scheme (funded by GFATM Round 1); and 3) the SMARTNET Social Marketing Programme (funded by DFID/RNE). The approach is to establish and promote ITNs through Public-Private Partnership to ensure affordability, accessibility and acceptability. Tanzanian National Voucher Scheme has four contracting partners:

- Logistics: Voucher printing, distribution, administration and redemption: MEDA
- Training & Promotion: World Vision Tanzania / CARE
- Monitoring & Evaluation: LSHTM / Ifakara HRDC
- Audit: KPMG

TNVS Voucher Value is TZS 2,750 (\$2.50 USD approx). Retail net prices vary from TZS 3,500 - 4,450 depending on size of net and remoteness. All nets manufactured in Tanzania are bundled with an Insecticide Treatment Kit. Top up paid by women varies from TZS 750 – 1700 (average = 1,019). Top Up price represents the retailer's margin. Retailers can only exchange vouchers for more nets. Wholesalers redeem vouchers for cash value. The program, called *Hati Punguzo*, was launched in October 2004 and reached full national coverage in 120 districts by the end of March 2006.

Achievements of TNVS so far:

- >1.27 million vouchers distributed to DMOs and clinics by the end of 2005
- now operational in all 21 Regions
- 414,878 vouchers redeemed by the year end;
- Currently >545,000 vouchers redeemed.
- Voucher redemption rates exceeded the monthly target for the first time in December 2005
- ITNs are now widely available in remote rural areas due to growth of the retail sector. 2,618 retailers involved by end December. 80% of these retailers are new to the ITN business.
- Sales of ITNS in 2005 reached 2.4 million, 34% higher than 2004;
- Sales of insecticide re-treatment kits (IRKs) > 3.175 million, 44% higher than 2004.

TNVS Programme Costs. Once nationwide coverage is achieved, 1.1 to 1.2 million nets will be purchased with vouchers per year. Annual cost of Phase 2: \$5.5 million. Price per net delivered incl. subsidy, 2 re-treatment kits, logistics, training, promotion, audit and administration, = \$4.55 - \$4.96 each. Delivery cost (logistics, training, promotion, audit & admin) = \$1.79 - \$1.97 per net

Expanding the Tanzania National Voucher Scheme

- *USAID/PMI Programme 2006 Infant Voucher*
 - Delivered at 9 months with measles vaccination
 - Value = TZS 2,750 (same as ANC voucher)
 - Funding in Year 1 to reach 15 Regions
 - Selection criteria is infant mortality, excluding regions and districts that have recently received free nets via the Davos event.
- *Equity ("Safety Net") Voucher in 12 Districts*



- Targeted at the most needy
- Selection and delivery mechanism to be determined
- Probably a top-up voucher over and above the ANC & Infant Voucher
- Value to be determined (range TZS 750 -1500) if a top up
- Funding in Year 1 to reach 12 districts
- District selection by poverty indicator & infant mortality
- *Long Lasting Insecticide Treated Net (LLIN) Technology Transfer*

Discussion points arising from the Tanzania National Voucher Program presentation. There are four tiers of vulnerable groups in need of subsidy: pregnant women, infants, children under 5 yrs old and the 'equity program'. The marginal costs for administration and delivery of each additional programme are small. This type of expansion shows that redemption rates are strong and that the system is working. Programmes such as the "equity" distribution are important for reaching Persons Living with HIV AIDS (PLWHA). A point was made that in Zambia it is policy that every person living with HIV/AIDS receives a free ITN. It might be possible to invite someone from UNAIDS to attend the next WIN meeting.

There is still an economic disparity with the voucher programme, where some women, especially the poorest, are not offered a voucher because of non-compliant behaviour of ANC health workers. This also happened early in the Zambia experience, and is also apparently happening in the Tanzania programme. In some cases women are said to have to show they have enough money to top-up before they receive a voucher. In Ghana it may be the case that some women, including in the poorest quintile, already have a net or ITN and therefore don't bother to accept the voucher. Overall, we need to be very careful how we interpret voucher uptake.

Sustained targeted ITN delivery through ANC - Chavasse

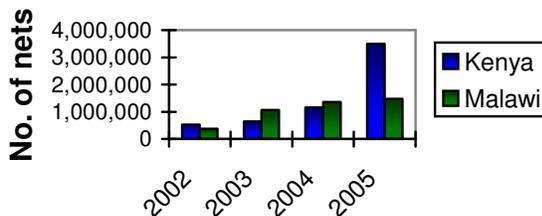
Des Chavasse from PSI reviewed progress in integrating ITNs in routine ante-natal care (ANC) services across Africa.

Why deliver ITN's through antenatal clinics?

- Access: provides direct access to principle malaria risk groups
- Coverage: High attendance for malaria risk groups in most of Africa
- Distribution: allows secure storage of large volumes of nets in rural areas
- Promotion: leverages unique and pre-existing consultation opportunity between nurse and mother
- Targeting subsidy: Existing registration system facilitates effective targeting
- Accountability: Easy to ensure through reconciling stock and revenue.

The ANC model works at national scale in both small and large countries. It is being implemented at sub-national scale in at least eight African countries. Funding and politics constrains scale up (but watch Rwanda and DRC in 2006). Nevertheless over 8 million ITNs and 10 million net treatment kits have moved through this mechanism recently. In Malawi, in the period 2000-2005 ITN coverage increased from around 10% to over 60% while child mortality dropped over 25%. The approach clearly complements the measles and malaria campaigns. We should not let uninformed debates on 'free vs. subsidized vs. cost recovery' derail integration. It is time to focus attention on quality of use.

Nets sold by PSI in Kenya and Malawi (2002-2005)





Discussion points arising from the integration with routine services presentations. PSI was congratulated for its strong progress in Kenya and Malawi. It is good that programmes such as Reproductive Health, EPI or HIV/AIDS can deliver ITNs to vulnerable groups, but there needs to be a clear understanding of who drives the process, so that it does not lose momentum. The final focus where all these programmes converge is on the clinic. All coordination is through the DHMT, Provincial Health Office, etc. While it is sometimes a challenge to coordinate outside one's boundaries, it can be done, for example IPT is now largely 'owned' by the reproductive health services.

While we agree that ITNs should be integrated into routine service delivery, this is often not popular with donors who like to see discrete vertical projects with defined outputs over a short period of time. Possibly the GFATM will offer more opportunities to support these routine delivery systems, in a way that can be maintained by the country after the end of GFATM funding.

Free, partially subsidized or cost recovery ITNs at the Antenatal Clinics. While it is true that some people don't receive ITNs because they simply can't afford them, there are often other barriers including access (the poorest communities are often at the furthest distance from the clinic) or demand (the poorest may also have less access to information). A study in Tanzania showed that many of the richest quintile lived within five minutes walk from the health center, while many of the poorest lived more than two hours walk from the Health Facility.

The "80/20 rule" applies here. Through the ANC systems we are able to deliver to, say 80% of the target population. It will take a much more intense effort to reach the remaining 20%, but in doing so, we should not dismantle the system that is working for the first 80%.

The impact of the age at first pregnancy on acquisition of an ITN is not known. We don't know if there is a differential between older and younger women. Can the younger women still afford the highly subsidized '50 cents' for the ITN? The ANC is the link to get the ITN into the house, once it is there, there may be redistribution.

Direct Distribution of LLINs in Papua New Guinea - Seddon

There was one national direct (non-campaign) distribution model for free LLINs presented by Ron Seddon from Rotary Against Malaria in Papua New Guinea. Rotary conducted a full quantification before the delivery of the ITNs, as some of the areas were very remote with very high transport costs. Rotary received \$21m for 4.2 million people at risk of malaria in GFATM Round 3. As PNG did not have a public tendering process, or at least one that took less than 1-2 years, Rotary was able to use a '*certificate of in expediency*' because of the time delays and the fact that the LLINs were being procured from a single supplier. Rotary is a not-for-profit NGO and can import ITNs more cheaply than others. They are importing 450,000 "Rotary against Malaria" ITNs and 750,000 ITNs from GFATM. The Solomon Islands and UNICEF are also asking for Rotary to help import nets. The initial epidemiological results are impressive with anecdotal reports of a large reduction in morbidity, pre-term delivery, anemia, and an increase in infant birth weight and school attendance.

Discussion points arising from direct distribution. Rotary against Malaria was congratulated for the strong progress under difficult conditions. A suggestion was made to add a research component to better document the impacts described. There is adequate malaria research capacity in Papua New Guinea who could be encouraged to examine this, especially since the delivery model is almost a step-wedge intervention design.

Commercial ITN Markets – Alilio

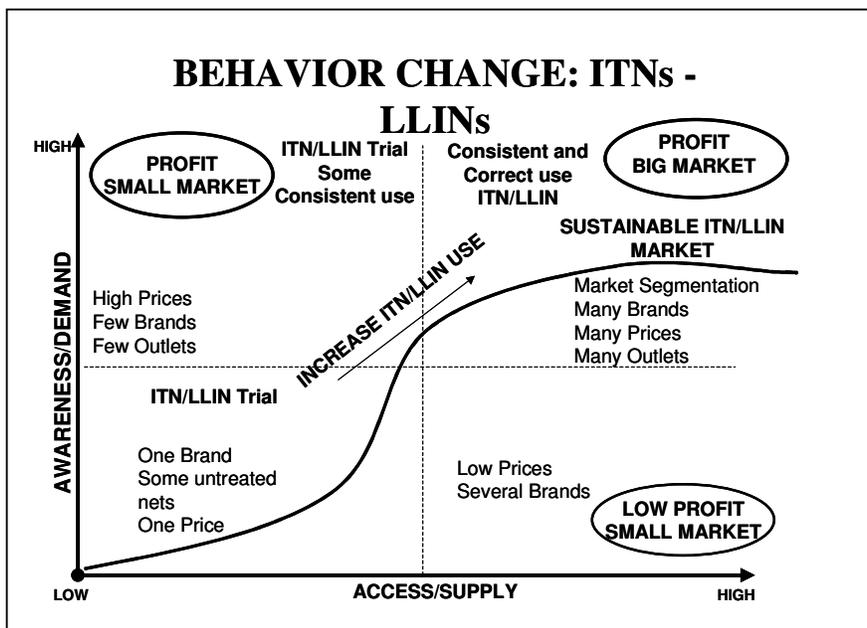
Martin Alilio of AED reported on the latest NetMark experience. He emphasized the need to make a consistent and sustained effort to grow both the formal and the informal markets. Continued strengthening of regional/generic above-the-line and below-the-line advertising and promotion as well as brand specific advertising and promotion has led to:

- Increased awareness and knowledge
- Increased ownership and correct use
- Improved attitudes (a precursor to continual growth in demand)



- Price surveys show that the cost of ITNs is going down.

A diagram for the evolution of the ITN Market:



Discussion arising from the commercial markets experience.

Jo Lines from the LSHTM was asked to comment on commercial ITN markets. He provoked discussion by identifying and describing some related issues often taken for granted, that may be mythical.

1. ITNs should be dried in the shade, and flat. (False)
2. Untreated nets don't protect, aren't important. (False)
3. Men get priority in net use (diversion). (False)
4. Commercial markets mainly serve the urban rich. (False)
5. Subsidized social marketing is better at reaching the poor (False in West Africa)
6. Local net suppliers are not worth supporting because they are poor quality, can't be treated, inefficient, and unresponsive. (False)
7. Malaria and measles campaigns have solved the ITN coverage problem. (False)

Long-term sustainability requires market growth. There will always be persons not covered by the commercial sector who need to be served by the public sector and NGOs, but the public supply of ITNs can only go so far and for so long. Urban populations can often buy their own ITN. How much capacity is allowed to the individual households to acquire their own ITNs and take care of their own malaria problems?

This is a long-term issue. Donors and global initiatives can be fickle; we don't know how long public funding for ITNs will be available. We don't know how many more rounds of Global Funds will be available to countries. Once we get to a certain scale, donors may be less interested in continuing. If funding for the public sector ITNs collapses, we will depend, almost entirely, on the private and commercial sectors. Vouchers are a way of providing low or no cost nets in a way that still engages the commercial sector to handle distribution and build "markets". The RBM Framework recognizes that the current donor-driven market will likely evolve slowly over time to become more of a local private market.



Both free distribution and markets can co-exist, especially if the commercial sector is involved with the free net distribution campaigns. The WIN partnership is showing how the private and public sectors can work with and complement each other. Strong statements are made on the value of these public-private partnerships; we need to ensure there is enough data to back up these statements so that they are not just based on opinion.

As the LLIN market grows, so too will the problem of sub-standard or counterfeit insecticide treatments, as has happened in the private pharmaceutical market

General discussion arising from national scale-up experiences

Free, partly subsidized and cost recovery for ITNs. It was agreed that this remains a country level decision, and that we need to continue generate and share evidence on the operational issues at national scale, as well as coverage and equity levels achieved and sustained for each model.

Criteria for mass retreatment of existing nets vs. new LLIN replacement delivery. We need better criteria for deciding on long-lasting mass retreatment vs. new LLIN delivery, for example in Niger and Cambodia where there was already significant, non-treated, net use. There is a problem where there may be a system for free delivery in some parts of the country and social marketing in other parts.

ITN campaigns and pre-existing nets. We need to improve use of ITNs given during campaigns when there are pre-existing non-treated nets in the house.

Mass retreatment campaigns using long-lasting net retreatment. We need to explore delivery mechanisms for the long-lasting net retreatment in addition to campaigns, e.g. through ANC or from static retreatment centers

The Kenya ANC and Measles/ITN distributions. We need to understand what happens when a campaign occurs during a growing ANC ITN delivery programme, such as will happen in Kenya. Unfortunately, it will be difficult to distinguish between the two sources of ITNs (both are Permanets with identical markings)

Simplification of the procurement procedures. It is recognized that the tendering and procurement procedures are a major bottleneck in many countries.

The three one's: one plan, one coordinating mechanism and one M&E system. National plans are being pushed aside in some countries by certain partners. The RBM board must emphasize "The Three One's" for malaria and advocate that all partners adhere to the Paris Declaration for AID Effectiveness.

Advocacy for WIN products. We need to improve the visibility, accessibility and use of WIN products

Improved data. We need to continue to compile "lessons learned", e.g. for the ITNs or vouchers delivered through ANCs. Likewise data for ITN impact on morbidity and mortality. We need evidence to fill in the matrix being developed by Jayne Webster.

Coordination of ITNs and IRS. ITNs have a complementary role to IRS and should be promoted in "IRS areas" both as a *safety net*, should the IRS fail to be implemented correctly on time, and as an "exit strategy" so that IRS can eventually be withdrawn.

National IRS Scale-up Experiences

Swaziland - Kunene

Simon Kunene from the Ministry of Health, Swaziland provided an introduction to how a national program for IRS operates using Swaziland as an example. Simon emphasized that ITNs and IRS are not competing technologies but each has its advantages and disadvantages in different contexts. In some contexts, both may be appropriate. Indeed, Swaziland provides both ITNs and IRS in its malaria



program. This presentation emphasized the importance of long-range planning and targeting and tight logistical control for IRS which included:

- Epidemiological analysis of the previous malaria season
- Quantification of requirements for the next malaria season
- Procurement of insecticides, equipment and other supplies in a tendering process
- Recruitment of seasonal personnel
- Training of personnel

Each step must occur sufficiently in advance of the season for the program to succeed. The program in Swaziland has had impressive impact between 2000 and 2005.

- Prevalence reduced from 5% to 0.5%
- Clinical malaria cases reduced from 45,000 to 7,500
- Confirmed malaria cases reduced from +4,000 to <300
- Malaria admissions reduced from +2,000 to <200
- Malaria deaths reduced from +60 to <10.

IRS is implemented in most of the SADC member states. Six countries (SWD, RSA, NAM, ZIM, ZAM, MOZ) are using DDT. SADC Member States have resolved that IRS and ITNs can not replace each other but complement each other.

Additional challenges of IRS cited were:

- Complicated procurement procedures
- Poor communication between the public and private sectors
- Escalating costs of insecticides and equipment
- IRS has not been properly promoted
- Sensitivities around some of the products like DDT
- How to sustain when incidence of the disease is low

It was noted that these are common concerns for the ITNs intervention as well!

South Africa - Mafubelo

Daisy Mafubelo of the Permanent Mission of South Africa provided an overview of IRS in South Africa where IRS has been the mainstay of malaria vector control since 1946 making it the longest-running continuous program in Africa. She described this history, the methodology, and emphasized the more recent cross-border and inter-country collaboration with neighboring countries in the Lubombo Spatial Development Initiative (LSDI) between Mozambique, South Africa and Swaziland and the Trans-Limpopo collaboration with Zimbabwe, which are also showing good impact.

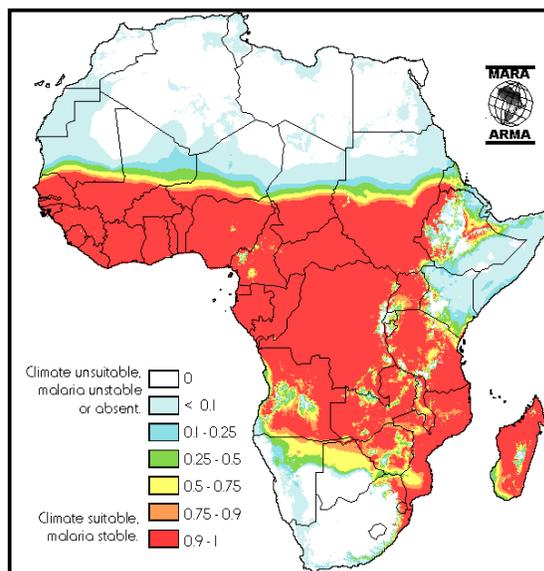
Evidence base for IRS and ITNs - Lengeler

Christian Lengeler of the Swiss Tropical Institute provided a comparative review of the evidence-base for IRS and ITNs. For IRS, compelling evidence for the impact comes from long-term observational data documenting the strong reduction in transmission or even elimination of malaria in whole geographic zones (southern Europe, Russia, Asia, and Latin America). Early small-scale IRS trials in the 1950s consistently documented substantial impact on transmission (but only rarely its interruption) in 10 countries in SSA. In Pare-Taveta, Tanzania (using dieldrin) the EIR dropped from 10-50 to less than 1 while crude mortality rate from 24 per 1000 in 1955 and to 16 per 1000 in 1958. Infant mortality rate dropped from 165 to 132 per 1000. In Kisumu, Kenya (using fenitrothion) transmission was reduced by 96% in 2 years. Crude death rates were reduced by 43% and the infant mortality rate by 41 %, with no change observed in an adjacent control area. In northern Nigeria (using propoxur) there was substantially decreased transmission and improved infant and child mortality. Conversely, cessation of IRS has had dramatic consequences in Ethiopia, Madagascar, Sao Tome, and South America.

He then went on to compare the protective efficacy and cost effectiveness with ITNs and showed that there was very little difference. He emphasized that choosing between IRS and ITN is largely based on a matter of operational feasibility and availability of resources, not comparative cost-effectiveness. Other contexts to note included the circumstances of the southern belt countries which have most of the IRS experience (Botswana, Namibia, South Africa, Swaziland, Zimbabwe) and their immediate

neighbours (Angola, Malawi, Mozambique, Tanzania, Zambia). The southern belt countries have a combined population at risk of 13.1 million and a GDP per capita in the range of USD 2,000-4,000 while the neighbouring countries to the north have a combined population at risk of 76.1 million but a GDP of only USD \$200-900 per capita. Other considerations with regard to choice of intervention include the vector behaviour (e.g. indoor resting or not), insecticide resistance, logistical capacity of NMCP, especially in large countries with low population density, and perennial transmission (vs. highly seasonal transmission) and hence number of spraying rounds required per year.

Christian introduced the new collaborative project put on the WIN work plan last year to conduct a systematic comparative review of ITNS and IRS with an emphasis on standardized costing frameworks to examine the efficiency of differing delivery models. Four IRS programmes will be reviewed by the MRC Durban (Kwa-Zulu Natal, LSDI-Southern Mozambique, Swaziland, and Bioko Island, Equatorial Guinea. Five national ITN programmes will be studied by the Swiss Tropical Institute: (Tanzania Integrated National ITN programme, Togo free distribution programme, Malawi social marketing programme, Senegal NetMark programme, and the Eritrea free distribution through clinics). All case studies will use the same costing approach.



Discussion points raised for the IRS presentations. We are much closer to being able to quantify IRS. There is a lot of pressure to implement IRS if it makes sense on a scientific basis. There is a large question of how to segment the geography, and to delineate the areas where IRS makes sense. This must be a country-based decision and not something for donors to impose from the outside. The countries want the control over their national programs; we are in a position to help put it on the agenda.

Cessation of IRS, the role of ITNs and the threat of insecticide resistance. While the introduction of IRS has shown dramatic results in some areas, likewise the cessation of IRS has led to resurgence, as for example in Ethiopia and Madagascar. Historical examples of where the introduction of IRS showed dramatic results include Tanzania and Northern Nigeria. At that time the global malaria effort was focused on eradication, not a long-term control programme that could stretch over many years. The programmes concluded that eradication was not possible and so were discontinued. Much of the investments in these programmes were for assessing the size of the target population to be sprayed, as well ongoing monitoring and evaluation. One major difference between those historical examples of IRS programmes and now, is that they did not have ITNs that could serve as longer-term solution as the IRS is withdrawn.

While these historical examples showed dramatic impact, they were difficult to sustain. In some cases the population no longer accepted the spray (sometimes because of the smell) and then there is always the fear of insecticide resistance, which may arise, not because of the IRS programme, but because of agricultural use of insecticides.

While resistance to the pyrethroids used on netting does not now appear to have an epidemiological effect, resistance to insecticides used for IRS equals a control failure, as shown in Kwa-Zulu Natal and in Bioko Island. A sound pesticide management plan to monitor and decide on pesticide rotation needs to be in place. WHO has established an insecticide resistance monitoring network to help answer some of these issues.



IRS Systems Requirements. IRS programmes require more robust systems for planning, procurement and logistics, implementation and monitoring and evaluation than ITN programmes; it is thus more than just a commodity issue.

The presentation showed that we need combined efforts for IRS and ITNs. Resistance management needs a much more organized response. We need to give far more guidance and systems support to countries wishing to embark on IRS

European Union Statement on DDT residuals. The EU statement that the onus for testing DDT residuals on agricultural products imported into the EU rests with the exporting country needs clarification.

IRS Strategic Choices. There is a need to articulate the primacy of country-level decision making for IRS. Helping to define the criteria where IRS should and should not be applied is the role of WHO. There is a need for an implementation pathway. WIN can help by developing consensus among partners.

How does one target the decision makers to help them understand the “rational use of IRS”? There will be a WHO/AFRO Regional Committee Meeting in Addis Abba in September 2006 where IRS will be discussed. IRS may also appear on the agenda for the meeting of the Africa Union. A technical presentation may not suffice as many of the ITN and IRS debates are political. We need to develop a consensus as was done for malaria drugs and ACTs.

Ministries often like what they hear about IRS and what they have seen from the operations in South Africa. IRS is very popular among most politicians as it is such a public display of malaria control work. Therefore it is essential that guidelines be developed.

Expanding the WIN to address IRS scale-up issues.

As planned, we had a major discussion on how to take the issue of IRS forward. It was recognized that the core membership of WIN will have to expand to bring in more representation and expertise of the IRS community. WIN is a ‘global’ entity not just AFRO and therefore it should include representation from the other regions. A proposal was made to have two major overlapping memberships representing the ITN and IRS communities (and many are working in both communities). The IRS group thus needs a focus and leadership and will need to convene to develop its work plan within the WIN. The July SAMC annual meeting, possibly to be held in Malawi, is a good opportunity to convene a session of this IRS sub group.

There is still no financing available for WIN to attend the SAMC meeting. The EU is interested and may help with the funding, likewise for USAID.

This satellite group needs leadership. Simon Kunene proposed Dr. Maharaj Rajendra, from the Medical Research Council in Durban, South Africa as the focal person. Simon agreed to approach Raj and the WIN chair agreed to follow-up with both.

Updating the WIN consensus statement on IRS and ITNs. One immediate task of the new group would be to review, revise and update the current WIN Consensus Statement on IRS and ITNs. This first statement was released in March 2004. There was discussion on who the intended readers were and how this fits into the new context of WHO GMP. The US President’s Malaria Initiative and the Regional Committee Meetings, with the participating Ministers of Health are two primary audiences. The title of the consensus statement now needs to change and we should include information on case studies. There is also a need for sharing experiences and building systems for insecticide resistance management. The logistics demands for IRS are far higher than for ITNs – which is mentioned in paragraph 4 of the statement. There may also need to be mention of public acceptance, which could be a larger issue for IRS and ITNs in some situations. Previous programs have experienced that after the first one or two rounds of spraying, house owners will sometimes complain about the inconvenience. We need to update the statement on the changing supply of LLINs and to speak about the complementarity of ITNs and IRS in urban areas. The revised consensus statement should



be ready by June. Much will depend on the wording of the WHO IRS Policy Statement, scheduled for release on 15 March 2006.

WIN can help develop an advocacy packet for IRS and document experiences of good practice. Advocacy opportunities for IRS are there and can be part of the work of the IRS subgroup. This IRS subgroup should meet sooner as countries and programmes such as the President's Malaria Initiative are moving ahead very quickly. Countries need to be watchful of political influence where programmes may be forced to implement IRS in places and times where it is inappropriate.

Session 5 and 6 General Discussion on Scaling-up

Notes from this session have been distributed to the logical headings in the prior sessions and added to the discussions for each item as well as the Summary Observations and Recommendations section.



Day Three – 03 March 2006

Session 7 – WIN Products, Work Plans and Budgets, 2005-2006

WIN deliverables

Based on the presentations, updates and discussions so far, a free listing of possible deliverables from the WIN over the next work plan period included:

- Document and draw lessons from national scale-up models and the integration of ITNs into routine systems, including ANCs, EPI programmes, and programmes on HIV/AIDS.
- Guidance on sustainability – models to show what comes after a campaign; how to enable a situation where there is a sustained supply of ITNs.
- Documentation and Guidance on mass retreatment using Long Lasting treatment formulations.
- Document the lessons learned of the Kenya campaign for mass delivery of free ITNs along with measles vaccination on top of a rapidly growing distribution through ANCs.
- Guidance for enabling the private sector – e.g. some of the NetMark documents for commercial sector scale-up.
- Foster the development of a network of testing facilities. WHOPES does the initial testing of LLINs, and will always play a primary role, but there is a need for more places to test, for example, new “LLINs” coming from China.
- Consensus statement on integrating ITNs and IRS

We need to address mechanisms for advocacy, e.g. through the RBM Board and WHO GMP, and strengthened links with the Sub-regional Networks.

Each of the WIN satellite groups was asked to work in small groups to update their work plans for the period 2006-2007, detailing deliverable products and preliminary estimates of budget requirements. A summary of major products is provided below. The complete Work Plan and Budget is available as a separate document. The foci of the work in these plans is outlined here.

Strategic Frameworks and Advocacy

- Integrating ITNs into routine systems
- Documenting scale-up and models of sustainability
- Increase advocacy for WIN Products, including ease of finding on website
- Examine and learn from integration of IRS and ITNs in Zanzibar

Enabling Environments

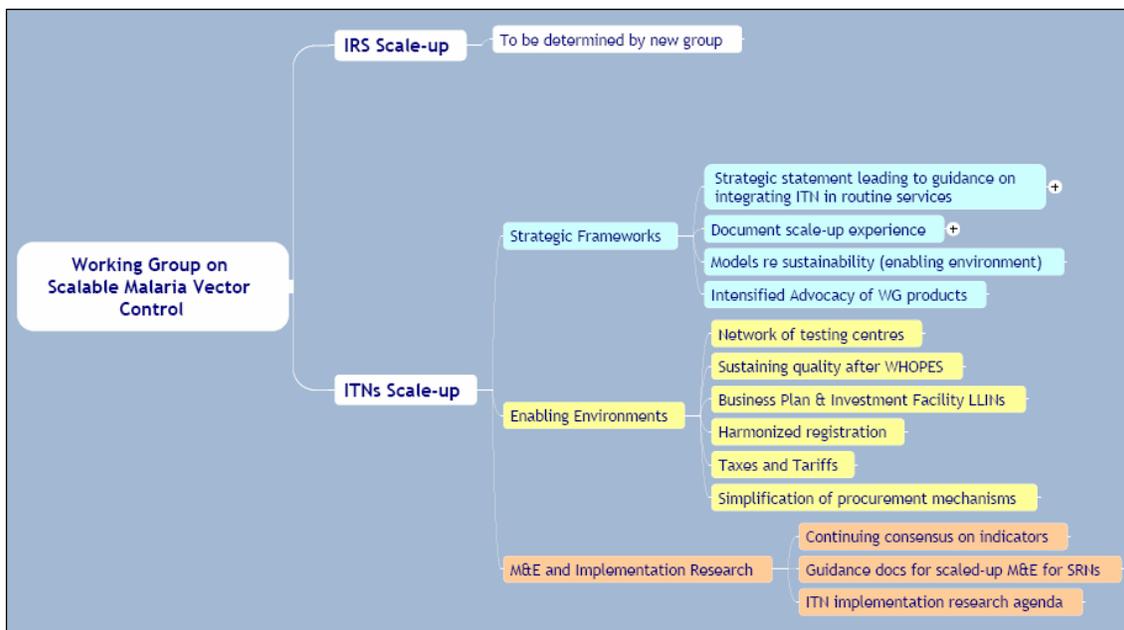
- Facilitating a network of LLIN testing centers in Africa (possibly with PMI?)
- Sustaining Quality Control after WHOPES
- Creating a business plan and investment facility for LLINs
- Harmonize testing procedures and registration
- Continue efforts on taxes and tariffs
- Simplify procurement mechanisms

M&E and Implementation Research

- Assist consensus on indicators for IRS and ITN coverage
- Guidance on M&E for SRNs



- Use of anemia measurement
- Development of key indicator for ‘sleeping space’ rather than individual person
- Implementation research agenda



It is important that the WIN work plan details be costed, even if it not funded. Then we will have a program of strategic needs and activities that a partner can take on.

Session 8 – Wrap-up Discussions

Revisiting the WIN Name and WIN Terms of Reference

Now that IRS scale-up has been added to the formal work plan of the WIN, the name of the WIN (Working Group for Insecticide-treated Netting) is no longer appropriate. After considering several suggestions, the decision was taken to rename the group to the **Working Group for Scalable Malaria Vector Control** (but keeping the WIN acronym for now).

We then revisited the Terms of Reference which have been unchanged since they were established in September 2003. Adjustments will be made to the Functions section to accommodate IRS on the same basis as ITNs. Most time was spent discussing membership which will clearly expand. The constituencies will remain as is (Endemic countries, Multilaterals, Bilaterals, NGOs, Private Sector, Projects, Sub-regional Networks, Academics and Technical Experts). Endemic country membership will now change and a number of countries have been asking to become core members, e.g. Nigeria. The Chair will pursue the revised membership with the RBM Secretariat once the IRS group has had a chance to consider their members.

There is still a major challenge for funding the Working Group. It was felt that a WG Secretariat could help raise funding. A suggestion was made that the WG should establish a small secretariat that would be best situated in a neutral and credible academic institution with expertise in both ITNs and IRS, such as the Swiss Tropical Institute. The Chair agreed to take this up with the STI to discuss the pros and cons of hosting the Working Group. The Chair will consult again with the Working Group and propose options within three months.



Closing remarks

The Chair drew the meeting to a close, thanking everyone for their active and rich participation in the meeting and partnership in the Working Group and especially those who prepared such clear presentations as a resource to the meeting and its report. Special thanks were given to the many new players who have joined this effort from other arenas such as EPI, ANC and IRS. The Swiss Tropical Institute was thanked for organizing, hosting and co-sponsoring the meeting and especially Margrit Slaoui of the STI who handled all the administrative support for the meeting so efficiently. The Rapporteurs included Mike Macdonald, Chris White, Martin Alilio and Jenny Hill who had the difficult task of capturing the detailed deliberations over the three days. The Chair gave a vote of thanks to UNICEF and particularly the private sector partners (Bayer Crop Science, SiamDutch Mosquito Netting Co. Ltd., Sumitomo Chemical, Syngenta, and Vestergaard Frandsen Disease Control Textiles) who stepped in to co-sponsor the travel and attendance costs of the endemic country participants. Finally the Chair thanked the Co-Chair and the RBM Secretariat for their strong support over the year and at the meeting, and the Secretariat for co-sponsoring the Meeting. The Working Group was most grateful to the RBM Executive Secretary, Dr. Awa Coll-Seck who was able to devote so much of her time to the meeting this year.

The Chair closed the meeting with a reflection that progress had been made in clearing the way forward for RBM support for IRS scale up, greater clarity in the our Working Group role relative to WHO, as well as re-focusing and updating the work plan for ITNs scale up. There is now growing experience showing substantial progress across a broad array of increasingly integrated delivery models and it is the role of the group to share and broadcast these experiences and pull out best practices. Some important bottlenecks were also identified for urgent action. Finally there was the decision to change the name to the **Working Group for Scalable Malaria Vector Control** and to consider establishing a small secretariat that would be able for the first time, to proactively drive the work plan and necessary facilitation for the partnership. The meeting was closed on this optimistic note having reviewed many recent positive accomplishments and having focused the road ahead for an expanded Working Group with new horizons.

Annexes

Link to Meeting Resource CD and Web Site for Participants List, Agenda, and Background Documents.

<http://www.rbm.who.int>