

RBM Vector Control Working Group Capacity Building Activities for IRS Work Stream

Progress Against 2011 Work Plan - Dr. Shiva Murugasampillay

Dr. Murugasampillay reviewed recent IRS progress as reported in the 2011 World Malaria Report. Globally, IRS protected 185 million people, representing 6% of the population at risk in malaria endemic countries. Funding for IRS comes predominantly from national resources, the Global Fund and US President's Malaria Initiative. The work stream reported achievements against each of the objectives in the 2011 work plan, some of which are presented below:

Advocacy & Financing Sub-Group

The sub-group collaborated with GBCHealth and the Corporate Alliance on Malaria in Africa, who provided significant financial support for *The Business Case for IRS: A Private Sector Workshop on Comprehensive Malaria Control.* The workshop, held in Johannesburg in October 2011, presented the business case for IRS, provided technical updates and explained how companies can most efficiently and cost-effectively incorporate IRS into their malaria control efforts. The advocacy & financing subgroup also developed communication materials for IRS were developed with partners from the Southern Africa Development Community (SADC) and RBM Southern Africa Regional Network (SARN). The Namibia Minister of Health is acting as a champion to help mobilize funds and support for IRS from within the African Union, SADC and the West African regional group ECOWAS.

Evidence & Reporting Sub-Group

A full review of published studies on the entomological and epidemiological impact of IRS is in progress. A Protocol for Rapid Impact Assessments and multi-country reviews has been developed. Documentation on chemicals used for IRS, including DDT, pyrethroids, organophosphates and carbamates, and on the resistance status of the local vectors is being developed. Indicators and a standard form for country reporting have been developed to support country reporting.

Supervision, Monitoring & Evaluation Sub-Group

A draft supervision check list, draft indicators and reporting forms and draft standards and a checklist have been developed to improve IRS supervision.

No progress was reported by the Commodities, Procurement & Supply Sub-Group.

Discussion

As regards documentation and reporting, it was acknowledged that much information on IRS programmes is available at the local level, but due to a lack of capacity to compile and report at regional and national levels, this information is not being disseminated. This is essentially a Health Information System issue and not confined to IRS.

It was noted that countries in SE Asia are increasingly requesting guidance on the role of IRS in elimination or pre-elimination. The need for guidance also relates to the design of appropriate strategies for "graduating" or transitioning IRS to a consolidation and maintenance phase.



As noted earlier in the plenary session, quality control appears to be a significant issue in relation to insecticide procurement. The IRS work stream needs to work closely with the RBM Procurement and Supply Chain Management working group to ensure adequate country program support.

3rd Capacity Building Activities for IRS Work Stream Meeting Tuesday 7th February 2012 IFRC, Salle 1, 2 (sub-groups 1, 2, IV, VI), Geneva, 9:00-17:00

Leader: Dr. Shiva Murugasampillay Rapporteurs: Dr. Elissa Jensen, Dr. Richard Tren, Dr. John Silver

Work Stream Review of 2011 Evidence & Reporting Sub-Group

Kleinschmidt and Maharaj summarized available literature on the impact of IRS in low (South Africa), moderate (Maputo, Mozambique), and high (Zambezia, Mozambique and Bioko Islands) transmission areas. In all three cases, the epidemiological and entomological impact of IRS was impressive. In S. Africa, where IRS is the primary intervention (no LLINs), parasitemia is virtually zero. In Maputo, the prevalence decreased from 60% to 10% and *An. funestus* and *An. gambiae* were virtually non-existent; IRS was the primary intervention for the first two years of the case study. In Zambezia a high transmission area, the protective effect of IRS alone was 50% and the protective effect of IRS and LLINs was 60% (PLoS One, in press).

Indoor spraying in Bioko Island in Equatorial Guinea a very high transmission area contributed in part to a reduction in prevalence by 50%; LLINs and treatment were also available. Populations of *An. funestus* declined to nearly zero. Due to resistance to pyrethroids, twice-yearly spraying with a carbamate was implemented in Bioko in 2011. Not surprisingly, results indicate that prevalence of infection increases as median time since last spray round increases. It is possible that twice-yearly spraying in Bioko is not sufficient. There is a need to combine IRS with other vector control interventions such as LLINs. LLIN coverage levels are low, in part due to expiry of the current tranche of distributed LLINs.

Discussion

- Scaling down IRS is challenging. In South Africa, the IRS program has been running for 65 years, and even without parasitemia, continues largely because of political/social demands.
 Zanzibar was to begin scaling down the IRS program in 2010, yet blanket spraying continues. It will be important to capture lessons learned from scaling down in South Africa, Zanzibar and other countries. It will also be important to scale up both surveillance and parasite control as IRS is reduced.
- Only four studies were allowed for inclusion in the Cochrane Review on the Impact of IRS. In 2012, this sub-group will be conducting a systematic review to allow for inclusion of other studies. However, given the widespread use of nets, the impact of IRS in the presence of nets will have to be considered.
- It was noted that the impact of IRS has been known for decades. The goal of updating the Cochrane Review is therefore to compile the evidence and have it easily accessible in one document.



- While the discussion was centered on IRS in Africa, in India IRS has been implemented for decades. Despite widespread resistance and low coverage of IRS, incidence has decreased dramatically.
- The WHO would like IRS programs to collect impact data (incidence and/or prevalence). The question is which methods should be employed for data collection (e.g., designated sentinel sites, routine facility data, or community-based prevalence survey).

Advocacy & Financing Sub-Group

Tren summarized progress from 2011 and highlighted key issues. In 2011, this sub-group initiated and with GBCHealth organized an RBM co-sponsored IRS Private Sector meeting in Johannesburg. There are now many examples proving the business case for IRS in the private sector and the meeting sought to expand the number of private companies undertaking IRS programs. One of the requests from the meeting was for national regulators to harmonize and align the registration and regulation of malaria control products to reduce costs of discovery and development. Policy positions were prepared for SADC, the Ministers of Health Conference, and E8 Meetings. The sub-group also engaged with the Global Fund to increase the profile of IRS reporting; participated in the Stockholm Convention's 5th conference of parties to ensure ongoing access to DDT and to eliminate reference to any premature phase-out of DDT.

Discussion

- As an intervention, IRS has not received the same high-level support as LLINs.
- It will be critical to increase funding from the private sector, public sector, and national governments.
- Donor funding has displaced country funding for IRS in some countries. For example, most IRS
 programs used to be completely funded by national governments (e.g., Ethiopia). The majority
 of funding for IRS is now coming from the Global Fund and PMI. Advocacy is desperately
 needed to increase commitment by national governments.
- There was discussion of developing indicators for private sector involvement in IRS.
- There was general agreement that an IRS work stream should plot out IRS funding streams/commitments over time to better understand the financing of IRS and to prioritize the concept of additionality of funds. However, as several working group members noted, the reality is that governments expect donor funding for malaria control. One participant pointed out that, in Ghana, the Global Fund grant for HIV is co-funded by the Government of Ghana. Should the Global Fund consider mandating co-financing of malaria grants by national governments?
- Several participants noted that private companies are interested in supporting IRS programs, but they do not want to take over programs; they are instead interested in helping national governments. Companies understand the return on investment (ROI) of preventing malaria, and are often mandated by corporate social responsibility. The group should consider ROI as an indicator for the private sector. In addition, private sector partnerships should be emphasized more in West Africa.
- The group agreed that, while high-level advocacy (e.g., ALMA) for IRS funding is needed, grassroots demand is equally important. Governments need to see the demand from communities.

Training & Capacity Building Sub-Group



Lluberas discussed two tracks for capacity-building: Track 1 to train advanced/research entomologists, and Track 2 to train field entomologists. Proper training and supervision of spray operators is also important, as spray operators remain the face of the intervention and they are key to community acceptance. Structures, supervision, and training are required when "mobilizing small armies".

Discussion

- Various countries and various partners have SOPs and operational manuals. There may be a
 need to review these and have one operational and training manual available through this
 sub-group. Countries can then adapt the manual for their own program. Given the need for
 frequent updating, this manual should be disseminated electronically.
- PMI noted that they have a standard operations manual (located at http://www.pmi.gov/technical/irs/index.html, "IRS Training Guide for Spray Operators").
- IVCC is supporting the development of an insecticide quantification kit that would allow for immediate monitoring of bioefficacy of insecticides on sprayed surfaces. This kit will be helpful in providing feedback to spray operators. However, this kit has not been validated by manufacturers, and it does not currently allow testing for all active ingredients.
- There was discussion on whether training is more urgently needed for spray operators or midlevel managers/decision-makers. The group generally agreed that the latter is more critical, and training should include how to report, how to supervise, and how to use data to drive decisions.

Supervision, Monitoring & Evaluation Sub-Group

The sub-group discussed the following:

- Should there be standard entomological and epidemiological indicators in country's IRS M&E
 plans? While selection of indicators is ultimately driven by NMCPs, and most IRS programs
 (whether donor-driven or country-driven) do have some standard indicators (e.g., number of
 houses sprayed and number of people protected), there may be value in standardizing these
 indicators. In addition, there is a critical need for inclusion of both epidemiological and
 entomological impact indicators (e.g., prevalence, SPR, and vector density before and after
 spraying and residual life of insecticide).
- There is currently a draft checklist available for supervisory visits.
- In 2011, there was supposed to be an IRS program review (distinct from Malaria Program
 Reviews (MPRs)) in Liberia and Sierra Leone. These never took place. There was an IRS
 program review in Botswana, which has not yet been shared outside the national government.
 Malaria program reviews also look at IRS.
- PMI/Tanzania is planning a mid-term evaluation of their IRS program in collaboration with the NMCP in August 2012.

Country Progress and Performance

Country presentations were made by:

 Tanzania (Aram). The PMI-funded IRS program had a dramatic impact on slide positivity rates (SPRs), as measured by district hospitals, and Tanzania will begin stratifying transmission zones to allow more precise scaling up of IRS. Challenges include the emergence of pyrethroid resistance, whether LLINs and IRS are cost-effective when combined, and the exit strategy from areas previously sprayed with low SPRs.



- Zanzibar (Molteni). After several rounds of PMI-funded IRS, malaria prevalence is less than
 0.07% according to the 2010 MIS. The NMCP is now trying to identify criteria for where to
 scale back IRS. Criteria could include net usage at 80% or more, presence of effective
 surveillance, outbreak control/emergency preparedness in place, etc. The challenge of how to
 communicate reasons for scale back to community members will have to be addressed. A
 complex malaria case notification system has been established to better characterize and
 identify (via GPS) malaria cases.
- Uganda (de Alwis). Twice yearly application of carbamates is used, with PMI support. After
 one year (starting in November 2010), SPRs decreased significantly and have not risen. The
 MOH is looking to expand IRS to three western districts with Global Fund support.
- Malawi (Youngs). Best practices for IRS programs should include precise geographical
 reconnaissance to allow exact quantifications for insecticides; community involvement; and
 capacity building of NMCPs at every step. In 2011, the PMI-funded project leveraged the Illovo
 Sugar Estate to secure fuel when fuel shortages threatened implementation of IRS. In
 addition, similar to experiences from other countries, insecticide resistance drove up program
 costs in 2011. The country switched from a pyrethroid to an organophosphate (the latter
 being five times the cost).

Discussion

- One needs to be cautious in assuming that scaling back or targeting IRS will result in cost savings, as increased surveillance and increased reliance on technology may need to be employed.
- Prevalence data analysis has been a cornerstone of programs in South Africa, India, Sri Lanka, Bioko, etc. Programs and partners, including PMI, should strive to better assess impact on malaria incidence and prevalence.
- In Tanzania, there is discussion of testing those who are already coming in for other tests (e.g., immunizations), to allow a sampling of children in sprayed areas.
- Efforts to scale down in Zanzibar have been tremendously challenging.
- The Malawi program has not yet collected impact data, but is reviewing current data from local hospitals.

Development partner presentations were made by:

- Global Fund (Lee): \$100 million has been allocated for IRS across Global Fund grants (contrast to \$1 billion allocated for LLINs). Of the \$100 million, \$34 million was concentrated within the Eastern African and Indian Ocean region, and \$15.1 million in southern Africa. In addition, of the \$100 million, 30% remains unspent. This could be partially due to delays in disbursement, rather than problems with absorptive capacity. Representatives from different organizations based in various countries raised the concern that MOHs had been discouraged from including IRS in Global Fund grants.
- President's Malaria Initiative (Jensen): Approximately 25% of the PMI portfolio went to support IRS in 2011. With FY11 funding, this represented \$114 million. As PMI has expanded and many countries entomological and epidemiological profiles are changing, key challenges include how to better target IRS in the presence of nets and insecticide resistance and how to better quantify capacity. In addition, PMI presented results from a cost analysis from 2008 2010, demonstrating economies of scale when more than 150,000 structures were sprayed. http://www.pmi.gov/technical/irs/index.html
- Mentor (Richard Allan): IRS in emergency malaria control. (Presenter could not attend the
 meeting, but sent a power point presentation.) In Emergency situations, IRS can be used
 especially where LLINs are not appropriate, such as camps, emergency shelters, schools,



hospitals etc. Essential supplies for delivery of IRS need to be standardized in emergency situations. Mentor and BASF delivered IRS in IDP camps in Liberia in 2003, Banda Aceh in 2005. Other examples include Somali refugee and IDP camps after floods in 2011 as well as North East Kenya in 2011 and Southern Sudan in 2012.

Discussion

- Will any IRS programs be in jeopardy due to Round 11 issues? Countries can tap into the Transitional Funding Mechanism.
- It is up to countries to make the case for IRS in Global Fund grants.
- Several discussants noted the Global Fund had rejected IRS portions of grants because the TRP did not see value in overlap of IRS and LLINs, which is contradictory to the latest evidence (e.g., Hamel's article on the clear benefit of combining IRS and LLINs).
- Given level or dwindling malaria funding, is support for IRS may be diminished. Ultimately, NMCPs decide what combination of interventions to deploy. However, IRS has not received the same advocacy as LLINs from the highest levels, and in order to reach the goal of nearzero deaths, IRS is needed. We should be implementing according to evidence of impact under the auspices of integrated vector control.
- There is concern that the vector control community is still pitting IRS against LLINs, despite the WHO imperative to operate under the auspices of integrated vector control.
- With the GPRIM recommendations, short-term costs of IRS will due to the higher costs of nonpyrethroid insecticides. There is potential that coverage will decrease, therefore improved targeting is essential.
- There is the potential to include an informational note to the TRP to present literature on the combined use of IRS and LLINs.
- At a minimum, this sub-group should distill the Hamel et al paper into a one-page summary and disseminate to the VCVG.
- Impact data collection not only helps guide programs in decision making (where to start spraying, where to stop, etc.), but it will also serve as a useful advocacy piece.

Priorities for IRS Work Stream Sub-Groups

Supervision, Monitoring & Evaluation Sub-Group

Participants: Shiva Murugasampillay (lead), Doris Youngs, Ranjith Alwis (Apologies: John Govere, John Bosco Rwakimari, Sam Awololo)

Issues:

1. Evaluation

- Tanzania was looking for guidance for TOR and support for a mid-term program evaluation of the IRS program
- Evaluation needs are different such as the needs of the national IRS program or PMI
 IRS projects but they need to be aligned around one evaluation
- There are different types of evaluation. In Uganda PMI project there are quarterly and annual review against the annual plan
- Need for defining the IRS standards and there is the ideal standards and the practical standards
- A draft checklist is in place to guide the IRS program evaluation but we need a manual to go with the tools
- o AngloGold Ashanti has an IRS program audit tool which can be also used to help



2. Supervision

- This is a weak area in programs and there is a need for an evaluation strategy and policy regards when and how.
- o Need to link the supervision tools with the training manual.
- IRS programs are old and new but can also learn from the work on supervision in other health areas

3. Monitoring

No time to discuss

Objectives for 2012

- Finalize the tools for supervision of IRS programs and spray operations
- Finalize the manual for evaluation of IRS programs for work stream sub-groups.

Evidence & Reporting Sub-Group

Participants: Raj Maharaj (co-lead), Immo Kleinschmidt (co-lead), Elissa Jensen, Johnson Odera, Rune Bosselmann)

2012 Objectives & Activities

1. IRS Systematic review on evidence of impact

- Update information collected as part of the Cochran review by Lengeler
- Include articles not included in the Cochran review
- Improve documentation for evidence & reporting as widely as possible
- Identify target audience for reporting
- Identify gaps in the data, shortfalls and challenges in the published literature

Lead: Immo Kleinschmidt and Raj Maharaj

Timeline: End October 2012

2. Evaluating impact of IRS impact

- Conduct an analysis of available data
- Identify gaps in the data
- Standardise data collection tools and methods of data collection
- Standardise key reporting indicators

Lead: Elissa Jensen Timeline: February 2013

3. Guidelines for implementing IRS programmes

- Identify situations where IRS programmes can be initiated
- Define criteria for continuing implementing IRS programmes
- Identify circumstances where IRS can be scaled down or stopped.
- When can LLINs replace IRS to sustain low malaria cases?
- Can elimination be achieved without IRS?

Lead: Johnson Odera and Rune Bosselmann

Timeline: December 2012

Issues raised but not discussed:



- Targeting IRS ecologically, entomologically and epidemiologically why, when, where and how to target IRS
- Ensuring routine annual country reporting on IRS, access, coverage, impact and quality
- Strategies for managing resistance within IRS programs
- Combining IRS with LLINs, larval control and space spraying
- Transitioning from IRS for malaria control to generic mosquito control

Training & Capacity Building Sub-Group

Participants: Manuel Lluberas (lead), Fabrizio Molteni, Ziad Akle, Inigo Garmendia, Dereje Dengela, Martin Akogbeto, Kim Vu, Bradford Lucas.

2012 Objectives & Activities

- 1. Identify sources and access to IRS operational and training manuals designed for mid-level managers, collect as many as possible and produce a harmonized and standardized manual (or produce if none can be located).
- 2. Identify consultant to dedicate time to complete number one above.
- 3. Identify programs with a training facility and look into the possibility of having them become a regional training facility. Training facilities are foreseen in Eastern Africa (Tanzania is a candidate), southern Africa (South Africa (is a candidate), West Africa (Nigeria?), Asia (Manila or Bangkok?) South America (Ecuador?).
- 4. Prepare curricula for use in these training centers based on the operational manual identified in number 1 above.
- 5. Designate funding for program managers to attend and present their programs at international conferences like the American Mosquito Control Association (late February of the year), the Society for Vector Ecology (in the Fall of the year), the European SOVE or similar.

Issues raised, but not discussed:

- How can national programs systematically conduct IRS funding and commodities gap analysis to support resource mobilization
- Innovation in IRS delivery does IRS have to be done by an NMCP?
- Strengthening IRS program coordinators and IRS working groups

Advocacy & Financing Sub-Group

Participants: Richard Tren (lead), Steve Knowles, Robert Ainslie

2012 Objectives and Activities

- 1. Raise profile of IRS as key IVM intervention among ECOWAS Ministers of Health and WARN
- 2. Raise profile and visibility of IRS among African leaders, with a focus on co-financing of donor-funded IRS programs
- 3. Improve documentation of the business case for IRS and present to Chambers of Mines in West Africa
- 4. Prepare policy document on financial implications for IRS of insecticide resistance.

Issues raised, but not discussed:



- IRS funding and commodities gap analysis
- Tracking and advocating for increased funding for IRS
- Monitoring the threats to IRS and monitoring public perceptions of IRS

Commodities, Procurement & Supply Management Sub-Group This sub-group could not convene due to absence of leads

Issues raised:

- Quality of insecticides being supplied that do not meet WHOPES standards, e.g. recent procurements by UNDP
- There are also quality issues of application equipment

Both of these issues will be followed up jointly with the RBM procurement and supply management group.

Final Conclusions and Summary – Dr. Richard Tren

Discussions

- Strong entomologic and epidemiologic evidence supporting IRS in high, moderate and low transmission settings
- Advocacy efforts have raised the profile of IRS at national, regional and international level.
 Compelling business case for private sector funding of IRS programs. Funding for IRS programs has increased, principally from US PMI and Global Fund
- Abundant training materials and IRS guidelines but urgent need to consolidate these documents, make available to spray programs, including in electronic format
- Presentations from Tanzania, Zanzibar, Uganda demonstrate impressive scale-up in IRS with evidence of rapid reductions in parasite prevalence

Key Issues

- When to scale up & scale down IRS?
- Standardizing indicators for IRS, including impact indicators
- Need to compile evidence through case studies, publications
- Donor funding has displaced local funding, urgent need to increase domestic IRS funding
- IRS funding has increased, but some GF money allocated for IRS remains unspent
- Cost implications of resistance will be considerable

Actions and 2012 Work Plan

Sub-Group: Evidence & Reporting

- 1. IRS Systematic review on evidence of impact
- 2. Evaluating impact of IRS
- 3. Guidelines for targeting IRS programmes (when to start, when to stop)

Sub-Group: Supervision, Monitoring & Evaluation

1. Finalize the tools for supervision of IRS programs and spray operations



2. Finalize the manual for evaluation of IRS programs for work stream sub-groups

Sub-Group: Training & Capacity Building

- 1. Harmonize, standardize IRS training manuals designed for mid-level managers
- 2. Identify programs with a training facility and look into the possibility of having them become a regional training facility. Training facilities are foreseen in Eastern Africa, southern Africa, West Africa, Asia, South America
- 3. Prepare curricula for use in these training centres based on the operational manual identified in number 1 above
- 4. Designate funding for program managers to attend and present their programs at international conferences like the American Mosquito Control Association (late February of the year), the Society for Vector Ecology (in the Fall of the year), the European SOVE or similar

Sub-Group: Advocacy & Financing

- 1. Raise profile of IRS as key intervention among ECOWAS Ministers of Health and WARN
- 2. Raise profile and visibility of IRS among African leaders, with a focus on co-financing of donor-funded IRS programs
- 3. Improve documentation of the business case for IRS and present to Chambers of Mines in West Africa
- 4. Prepare policy document on financial implications for IRS of insecticide resistance



Objectives of the Meeting

To discuss current and emerging issues on scaling up and sustaining IRS for malaria control and elimination:

- 2011 Products
- 2012 Products and Plans

The meeting will have the style of short introductory feedback and presentations on progress and products in 2011 to set the stage for extensive discussions and group work on 2012-13 products and action planning.

Agenda				
8:30 – 9:00	Welcome / coffee and tea			
Session 1 Salle 1-2	Work stream Review of 2011 progress and product for 201	2		
9:00 – 9:05	Introductions to day sessions and ground rules	Shiva		
9:05 – 9:15	IRS evidence and reporting (Impact of IRS in low and moderate transmission) (Impact of IRS in high transmission areas) (Systematic reviews of IRS)			
9:15 – 9:30	Discussion	All		
9:30 – 9:40	IRS Advocacy and Financing Tren/Moonasc (Private-public partnership for IRS in work place/CSR/CSI) (DDT-POPs and supplies)			
9:40 – 10:00	Discussion	All		
10:00 – 10:10	IRS training and capacity building (IRS sub-regional training and support centers)	Lluberas		
10:10 – 10:30	Discussion	All		
10:30 – 10:40	IRS supervision, reviews, evaluation (IRS Annual Reporting, IRS program reviews)			
10:40 – 11:00	Discussion			
11:00 – 11:30	Morning break / coffee and tea			
Session 2 Salle 1-2	Country progress and performance in IRS			
11:30 – 11:40	Scaling up IRS for control in Tanzania and elimination in Zanzibar			
11:40 – 11:50	Scaling up IRS in Uganda			
11:50 – 12:00	GF Financing for IRS			
12:00 – 12:10	US-PMI support for scaling up IRS in Africa			
12:10 – 12:20	Scaling up IRS in Malawi			
12.20 – 12.30	IRS in malaria and health emergencies			



12:30 – 13:00	Discussion	All
	(India, Nigeria, Sudan, Insecticide quality, Combinations)	
13:00 – 14:00	Lunch (sandwiches)	
Session 2 Salle 1, 2, IV, VI	Group Work on key issues and challenges and 2012 IRS products and 2012 IRS work plans	
14:00 – 14:20		
14:20 – 14:50		
14:50 – 15:10		
15:15 – 15:40	Summary of group work	
15:40 – 16:00	Afternoon break / coffee and tea	
16:00 – 17:00 Salle 1-2	Overall Summing up	



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APPENDIX

RBM Vector Control Working Group (VCWG) 7th Annual Meeting – 6 – 8th February 2012, Geneva

Capacity Building Activities for IRS Work Stream Meeting

GROUP WORK GUIDE

Advocacy & Financing Sub-Group Co-Chairs: Dr. Richard Tren/Dr. Patrick Moonasar

Purpose of group work is to continue to expand the network on individuals and institution to participate actively and contribute ideas, suggestions regards problems, challenges, solutions and in contributing to scaling and sustaining high quality IRS for malaria control and elimination. The group should review progress in the IRS work stream sub-group-IRS **Advocacy & Financing** products and plans for 2011 and develop products and plans for 2012.

2011 Objectives & Activities:

- To increase the financing for IRS
 - Private sector IRS workshop raising profile of IRS in the private sector, increasing commitment to IRS
 - Increase public funding for IRS from Global Fund & other donors
 - Increase domestic funding for IRS
- To raise the profile of IRS (Mobilize AU, SADC, ECOWAS and other sub-regional groups on IRS)
- To enable the use of public health insecticide (Ensure ongoing availability and use of DDT and other insecticides for IRS)

- IRS network and champions
- Who are the champions for IRS?
- How do we keep an IRS network active? E-mail, Blogs, Monthly scheduled teleconferences, annual conferences, secretariat?
- Case studies on IRS progress and impact
 - o Is there sufficient information on the successes of IRS programs if not, which case studies would best educate the public, funders etc. and advance the IRS agenda?
- Private sector IRS:
 - o How to build on and expand private sector initiatives in Southern Africa?
 - How to establish a private sector hub for West Africa?
 - What should we be asking and expecting of the private sector? What should the private sector ask of RBM, donors etc?
 - Do we know how much IRS is conducted by private companies? If not, what sort of survey needs to be done?
 - AngloGold Ashanti in Ghana and Mozal-BHP Billiton in Mozambique are working models, are there opportunities for other mutually beneficial arrangements between national programs, private companies and major development partner
 - Are there new/different models for delivering IRS? e.g. NGOs, Private vector control companies, franchises etc?
- Difference between long term IRS national programs and short term IRS projects



- IRS Funding and commodities gap analysis
 - How many people are currently protected by IRS? Do we have a target for increasing people protected?
 - Has any national program or organization done a needs assessment or funding and commodities gap analysis? If not, how should this be done, when and where? Can it be funded?
- Tracking and advocating for increasing domestic financing for IRS
 - Do we know the level of domestic funding for IRS? If not, can it be measured? Do we want to set a target for domestic IRS funding?
 - O Who can be a champion for increased domestic IRS funding?
- Mobilizing additional international IRS financing from GF and DFID
 - o Can we find champions for IRS funding from new/different donors?
- What are the threats to IRS and what can advocacy do to fix them?
 - o Rising costs of insecticides, access to insecticides
 - Lack of trained personnel
 - Lack of domestic funding for IRS from African nations.
 - Global Fund focus on more effectiveness and efficiency and performance in investment
 - o Uncertainty about continued donor funding from major G8 donors
- Public perceptions of IRS –What should IRS advocacy goals be?
 - o Do we want to change perceptions in malarial countries or in donor countries?

Evidence & Reporting Sub-Group

Co-Chairs: Dr. Raj Maharaj/Dr. Immo Kleinschmidt

Purpose of group work is to continue to expand the network on individuals and institution to participate actively and contribute ideas, suggestions regards problems, challenges, solutions and in contributing to scaling and sustaining high quality IRS for malaria control and elimination. The group should review progress in the IRS work stream sub-group **Evidence & Reporting** products and plans for 2011 and develop products and plans for 2012.

2011 Objectives & Activities:

- IRS systematic reviews of entomological/epidemiological impact
- Retrospective multi-country review of selected IRS outcome and impact indicators
- Review and update list of insecticides currently used in IRS
- Review and update standard M&E procedures for IRS

- Can we advise countries on when to start IRS, how long to continue IRS and the circumstances under which IRS can be scaled back or stopped?
 - In areas where there has been a rapid reduction in malaria transmission, are LLINs sufficient to sustain low malaria cases?
 - Can elimination or pre-elimination be achieved without IRS? If so, where, when and under what circumstances?
- Targeting IRS ecologically, entomologically and epidemiologically (Why, Where, When and How)
- IRS systematic reviews on evidence of impact



- What are the priorities for improving documentation? Are we trying to show that IRS works or are we trying to show where, when and how IRS works best?
- O Who are we trying to convince with publications on IRS?
- What are the shortfalls? Is there a lack of data or a lack of capacity to analyze and publish the data?
- How to ensure routine annual country reporting on IRS, access, coverage, impact and quality and supporting development of regional data bases on IRS?
- How do we evaluate impact of IRS impact (Defining end points and methods of data collections)
- What are the strategies for managing insecticide resistance within IRS programs?
- What is the evidence on use of combinations of IRS with LLINs, larviciding and space spraying for maximum vector control?
- When is the time for transitioning from IRS for malaria vector control to generic mosquito control

Training & Capacity Building Sub-Group

Co-Chairs: Dr. Manuel Lluberas

Purpose of group work is to continue to expand the network on individuals and institution to participate actively and contribute ideas, suggestions regards problems, challenges, solutions and in contributing to scaling and sustaining high quality IRS for malaria control and elimination. The group should review progress in the IRS work stream sub-group **Training & Capacity Building** products and plans for 2011 and develop products and plans for 2012.

2011 Objectives & Activities:

- Review/develop IRS Program Managers Regional Training Programs
- Produce national training program for spray operators
- Provide guidance on building structures, system and capacity building

- IRS Operational manual & IRS Training manual and training materials
 - What are the minimum standards/ bench marks and guidance for delivery of national IRS programs?
 - Can training tools be upgraded can video & animation be used?
 - O What is min. standard of capacity by level for national IRS programs?
 - o Has a needs assessment been done? If not, can it be done and at what cost?
 - Can we develope and use IRS capacity building assessment tools
 - O What are main gaps? Who can fill them?
- IRS Southern Africa & West Africa regional training and support centres
 - o Is a bricks & mortar centre needed?
 - Would a roving team and/or database of IRS trainers/supporters be more efficient & effective?
 - O What sort of sponsorship could make these centres a reality?
- How can national programs be supported by simple IRS Planning and proposal development tool to support more effective long term strategic and annual IRS program planning and management



- How can programs systematically conduct IRS Funding and commodities gap analysis to support resource mobilization?
- Innovation in IRS delivery (private sector, NGOS etc.)
 - O Does IRS have to be done by an NMCP?
- How to strengthen country IRS program coordinators-TOR and Training
- How to strengthen country IRS Working groups (TOR, Chair, Secretariat, Composition, Functioning etc).

<u>Supervision, Monitoring & Evaluation Sub-Group</u> Co-Chairs: Dr. John Govere /Dr. John Bosco Rwakimari

Purpose of group work is to continue to expand the network on individuals and institution to participate actively and contribute ideas, suggestions regards problems, challenges, solutions and in contributing to scaling and sustaining high quality IRS for malaria control and elimination. The group should review progress in the IRS work stream sub-group, **Supervision, Monitoring & Evaluation** products and plans for 2011 and develop products and plans for 2012.

2011 Objectives & Activities:

- Develop standard supervisory checklist
- Standardize minimum operational, entomological, epidemiological and social indicators for monitoring IRS
- Standardize tools, checklists for IRS program review, pilot in 2 countries.

Key issues for discussion for 2012 products and work plan

- IRS program and spray operation supervision tool
- IRS Program evaluations-audits
 - O What sort of peer-to-peer reviews can be done on IRS programs?
 - Is funding available for IRS program reviews what regional/domestic funding could be leveraged?

Commodities, Procurement & Supply Management Sub-Group Co-Chairs: Dr. Rabindra Abeyasinghe/ Dr. Gerhard Hesse

Purpose of group work is to continue to expand the network on individuals and institution to participate actively and contribute ideas, suggestions regards problems, challenges, solutions and in contributing to scaling and sustaining high quality IRS for malaria control and elimination. The group should review progress in the IRS sub-group products-IRS Commodities, Procurement & Supply Management and plans for 2011 and develop products and plans for 2012.

2011 Objectives & Activities:

- Develop lead time of 4 months supply planning for IRS chemicals & compression sprayers
- Simplify specification and standardize tender format for IRS chemicals & compression sprayers.



- How can all program and partners be supported to work to use WHOPES specifications for insecticides and hand compression pumps?
- How program can be supported to developed five year and annual quantification of need in insecticides and equipment to support resources mobilization and timely ordering and supply.
- Quality control of insecticide and pumps
 - Is there sufficient quality control & oversight at domestic level? Is quality of insecticide and/or pumps compromising IRS? If so, what can be done to improve oversight?
 - Are WHOPES approved quality assurance and quality control centres being used by countries and partner?
 - o How do we address reported quality problems by manufacturers?