

**MINUTES OF THE INDOOR RESIDUAL WORK STREAM (IRS) WORK STREAM  
6<sup>th</sup> RBM VECTOR CONTROL WORKING GROUP MEETING  
11.00 AM to 1600PM  
WEDNESDAY 9<sup>th</sup> FEBRUARY 2011  
IFRC, GENEVA, SWITZERLAND**

**WORK STREAM LEADER: Shiva Murugasmpillay**  
**RAPPORTEUR: Hmooda Toto**

**1. INTRODUCTION**

At the 2010 VCWG meeting it was decided that an IRS work stream was needed to ensure that support be provided to countries that are implementing IRS and for those countries considering this intervention for malaria vector control. VCWG members were invited by the secretariat to participate in the IRS work stream and identify key areas that needs addressing. The key areas that were proposed were synthesized into sub work streams. The key work streams that were identified include: IRS Evidence and Reporting, IRS supervision reviews and evaluation, IRS training and Capacity Building, IRS Procurement and Supply Management and Advocacy and Financing for IRS. Experts were invited to lead each of the work streams. The work stream members will collaborate using electronic means and through meetings, to develop and implement an action plan- which will be shared with the VCWG.

**1.1. Objectives of the IRS working stream**

The key objective of the RBM Vector Control Working Group IRS work stream (VCWGI), is to facilitate alignment of partners on strategy and 'best practice' to rapidly scale-up malaria vector control particularly, Indoor Residual Spraying (IRS) in order to meeting RBM GMAP targets for malaria Vector Control.

**1.2. Sub work streams and Facilitators:**

The work stream facilitators were selected based on expertise and interest generated by them to fulfill their relevant role. The work streams and the facilitators are tabulated below.

<b>Work stream</b>	<b>Facilitator</b>
IRS Evidence and Reporting	Rajendra Maharaj/Immo Kleinschmidt
IRS supervision reviews and evaluation	John Govere
IRS training and Capacity Building	Manuel Lluberas
IRS Procurement and Supply Management	Rabindra Abeyasinghe
Advocacy and Financing for IRS	Richard Tren/Patrick Moonasar

**2. KEY FOCUS AREAS OF IRS WORK STREAM**

The focus areas of each of the work streams are a synthesis of inputs from the VCWG members that were suggested, these are highlighted below:

**2.1. IRS Evidence and Reporting and M&E**

- Need for strong evidence that IRS adds to current malaria control strategies in both efficacy and cost effectiveness.
- Intervention with some longevity in relation to resistance development.
- Feasible intervention that can be scaled up in areas where it is most needed, which are often also resource poor settings.
- Need for robust evidence as published evidence on IRS is inadequate
- IRS Programs need to ensure that they are adequately reported in a manner than can provide robust evidence?
- That very few papers actually exist that really prove the efficacy of IRS, despite many years of use and many publications.

## **2.2. IRS supervision reviews and evaluation**

- Pre-intervention surveys such as malaria parasite prevalence,
- Monitoring of disease incidence
- KABP surveys on community attitudes, support and acceptability.
- Entomological surveys and monitoring
- Development of resistance
- Changes in species distribution
- Behavioural changes such as peak time of biting and indoor/outdoor preference.
- Documenting for evidence based IRS
- Spray quality
- Spray coverage
- Stronger supervision of IRS campaigns
- Joint evaluation of performance of some ongoing IRS programs.

## **2.3. IRS training and Capacity Building**

- Technical capacity for quality IRS implementation
- Need for increased technical capacity
- Country capacity development plan
- National and regional network of IRS experts.
- Pool of consultants to support IRS
- Training on how to be consultant in IRS
- IRS training of trainers
- Training of team leaders.
- Training of spray operators.
- Training for proper application of insecticides.
- Orientation of policy makers

## **2.4. IRS Procurement and Supply Management**

- Selection and procurement based on highest international standards
- Need for clear WHOPES specification for hand compression pumps
- Problems with procurement of agricultural pumps
- Mapping and demographics to provide adequate quantification of equipment requirements;
- Need for good stock control of equipment and maintenance program.
- The health system through which IRS is run needs to be strong and efficient.
- IRS requires good planning with objectives
- Control of costing and financing to get maximum benefit from the investment
- Logistical planning – Mapping and demographics to provide forecasts of insecticide/equipment requirements;

## **2.5. Advocacy and Financing for IRS**

- Political advocacy at ministerial and presidential level
- Policy level advocacy for long-term local and national government/public sector commitment and financing for sustainability.
- Popularization of IRS among donors as a cost-effective tool.
- Complimentary private sector cooperation increased financing for IRS.
- Myth or reality that IRS is expensive and not sustainable
- IRS documentation of success and best practices

### 3. IRS WORK STREAM COUNTRY CASE STUDIES

Country Presentations were made by

1. Ghana, scaling up IRS for malaria control in moderate to high transmission areas  
Constance Bart Plange & Steve Knowles
2. Sudan sustaining IRS in low transmission areas  
Hamooda Toto
3. Uganda piloting IRS in high transmission areas for malaria control  
Michael Okia & John Rwakimari
4. Sri Lanka sustained IRS for control and now moving to elimination  
Rabi Abeyasinghe
5. South Africa sustained IRS for control and now moving to pre-elimination  
Patrick Moonasar

#### Key issues

- All programs need to ensure that there is epidemiological monitoring of impact of IRS when it is used in different transmission settings. This is especially applicable to US-PMI supported programmes which only seem to focus on output and outcome.
- IRS programs such as Ghana conduct post IRS spray cycle review of performance and in some cases a full program audit is conducted as example of the private sector Angola Ashanti programme.
- IRS in Northern Sudan is being used in cross-border control with Egypt and for elimination on *An. Gambia spp*
- IRS programmes in West Africa appear to face high level of pyrethroids and DDT resistance and have to use short acting chemical such as carbamates and organophosphates.
- Some old programs seem to have well established national IRS training centres( Sennar in Sudan)
- PMI supported IRS program in Uganda is a model regards clear objectives and strategies with a focus on efficiency regards use of insecticides, appropriate transport and village health teams providing spray operators, monitoring of spray operators performance.
- Sri Lanka programme is good example of focussing IRS to target areas and groups and using it in combination with other vector control interventions.
- New IRS programmes need to plan for sustainability with the use of domestic funds to supplement international development funds.
- IRS programme are in some cases decentralized to state level with the states procuring their own insecticides and pumps and paying for the spray teams. This requires more supervision and support from the central level
- National regulatory bodies and specific laws govern IRS chemical registration and use.
- Ghana IRS programme is a model for public and private collaboration with US- PMI towards a national scale up.

### 4. IRS WORK STREAM PLANNED OUTPUTS FOR 2011

#### 4.1. IRS Advocacy and Funding Sub-Group

Richard Tren, Patrick Moonasar, Tom McLean

##### 1.1. Financing for IRS

- Private sector support for IRS
  - GBC – CAMA & VCWG/IRS Work stream;
  - Private sector IRS conference – Southern Africa, October 2011;
  - Leaders – Anglo Gold Ashanti,
- Outreach to Global Fund
- Securing domestic funding for IRS.

## 1.2. Raising the profile of IRS

- Donor nations – outreach to legislators & appropriators in US - Potential assistance from GHTC – global health technology coalition;
- WHA resolution on IRS & PHI;
- AU & ALMA & Sub-regional groups (SADC, ECOWAS etc.) – development of targeted advocacy materials, (possible consultancy opportunities).

## 1.3. Enabling insecticide for public health use

- Mostly focused on DDT but pyrethroids, OP also targeted by anti-insecticide campaigns.
- Top level – focus on regulators
- Mid level – responding to research papers, newspaper stories on insecticides
- Lowest level – Planned perceptions study on insecticide risk.

## 4.2. IRS Evidence & Reporting

Immo Kleinschmidt , Tarekegn, Abeku Rose Peters , Constance, Birkinsh Amenshewa

- 2.1. Systematic review of published IRS studies on epidemiological/entomological impact (Cochrane like) – No cost (LSHTM)
- 2.2. Retrospective multi-country review of selected indicators of IRS impact - \$40,000
- 2.3. Review and update standard monitoring and evaluation procedures and tools for future IRS implementations - \$10,000

## 4.3. Training & Capacity in Malaria Vector Control

Manuel Lluberas, Steve Knowles, Awaiting names

- 3.1. Evaluate and consolidate existing training manuals (2nd ½ of 2011);
- 3.2. WHO Establish a training program (2nd ½ of 2011; national or regional) to address :
- 3.3. Provide management training to IRS program managers after an IRS-specific program (1st ½ of 2012);

## 4.4. Supervision, Monitoring and evaluation/ review

J Govere, Sam Awolola, J B Rwakimari

- 4.1. Standardize IRS supervisory checklist and minimum frequency of supervision from district and national
- 4.2. Standardize minimum operational, entomological, epidemiological and social indicators for monitoring IRS program
- 4.3 Standardize tools/ checklists for IRS program review and pilot in 2 countries

## 4.5. PSM issues relating to IRS

Andy Bywater, Steve Hawkins, Gerhard Hesse, David Mcguire

Rabindra Abeyasinghe,

- 5.1. Determination of a lead time amounting to a minimum of 4 months before spray programs commence for contract signature with manufacturers.
- 5.2. Convening of a meeting with key stakeholder participation for agreement of lead times
- 5.3. Development of a planning tool to facilitate the above process

## 5. CONCLUSION

The IRS Work stream functions through 5 sub-groups supporting country and partners needs for scaling up and sustaining high quality IRS. This provided the first opportunity for face to face meeting and to be able to recruit more participants. The work stream started with a plenary with country presentation with an attendance of around 30 participants. This was followed by group work .Priorities were identified and draft work plans for 2011 were developed. The work plans are to be finalized by group leaders and submitted to the RBM vector control work stream chairs and secretariat and partners for funding. The country presentations are to be developed into cases studies on IRS.

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