Larval Source Management Work Stream
4th Meeting

13.00-15.00h, 30th January 2013
Salle V, IFRC, Geneva
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.20 – 13.35</td>
<td>How to make LSM work for IVM</td>
<td>Dr Silas Majambere (IHI)</td>
</tr>
<tr>
<td>13.35 – 13.50</td>
<td>LSM for malaria elimination</td>
<td>Dr Birkinesh Amenshewa (WHO-ASFRO)</td>
</tr>
<tr>
<td>13.50 – 15.00</td>
<td>Discussion: Next steps for LSM</td>
<td>All</td>
</tr>
</tbody>
</table>
Main points from 3\textsuperscript{nd} Meeting, Geneva, 7\textsuperscript{th} February 2012
What was discussed

1. Update on Cochrane Review – Lucy Tusting

2. 2012 Work Plan:
   • Country case studies – Steve Lindsay
   • LSM Operational manual – Shiva Murugasampillay
   • Decision-making framework – Steve Lindsay

3. LSM in Khartoum, Sudan – Hmooda Toto Kafy

4. Discussion
Next steps agreed

- **Country case studies:**
  - Case studies to be produced for four of the following:
    Khartoum, Sudan; Malindi, Kenya; Dar es Salaam, Tanzania;
    Zambia, India, Mauritius, Swaziland, Niger, the Amazon,
    Angola, Nigeria, Cape Verde

- **Decision-making framework:**
  - Booklet to be produced for program managers to use to decide
    whether LSM should be considered

- **LSM Operational manual:**
  - To be based around four chapters:
    i. Introduction
    ii. LSM policy
    iii. Management of programs
    iv. Implementation
  - Draft to be circulated among nominated members of the work
    stream for input/feedback
Update on Cochrane Review of LSM
Progress on Cochrane Review

February 2012: Preliminary analysis complete; entomology data to be added.

March 2012: Analysis completed; first draft submitted for peer review.

July 2012: Peer review and editors comments received. Major revisions required.

October 2012: Search updated to include studies published since first search in October 2010; further work on finalising analysis begins with financial support from Cochrane Infectious Diseases Group.

Spring/summer 2013: Submit next (final?) version for peer review.
2012 Work Plan: Progress since last meeting
# 2012 Work Plan

<table>
<thead>
<tr>
<th>Activity</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1. Follow-up with 2011-12 deliverables</strong></td>
<td></td>
</tr>
<tr>
<td>1. Finalise first draft of LSM Operational Manual</td>
<td>Apr-12</td>
</tr>
<tr>
<td>2. Support process of review, publication and dissemination of Operational Manual</td>
<td>Dec-12</td>
</tr>
<tr>
<td>3. Finalise and disseminate LSM case studies</td>
<td>Oct-12</td>
</tr>
<tr>
<td>4. Finalise and disseminate LSM decision-making framework</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>Objective 2. Maintain LSM network</strong></td>
<td></td>
</tr>
<tr>
<td>1. Secretariat to maintain up-to-date list of WS partners &amp; inform as necessary</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
1. Country case studies
Four case studies produced:

http://www.rbm.who.int/mechanisms/vcwgWorkstream6.html

1. Khartoum, Sudan – Hmooda Toto Kafy (NMCP, Sudan)
2. Dar-es-Salaam, Tanzania – Prosper Chaki (IHI, Tanzania)
3. Mauritius - Shahina Aboobakar (MoH, Mauritius)
4. India - Rajander Sharma (NVDCP, India)

• Information on LSM in Malindi from Charles Mbogo is also available at http://www.rbm.who.int/partnership/wg/wg_itn/docs/ws6/ChMbogo-LSMinUrbanMalindi.pdf
2. Operational manual
Progress so far

March 2012: It was agreed that the LSM manual would be better as a WHO document; funding offered by GMP.

May 2012: First draft completed and submitted to WHO and four reviewers for preliminary review.

October 2012: Draft manual circulated to LSM work stream members nominated in February 2012 to give input.

December 2012: Revised draft of manual submitted to WHO for further review.
Our thanks to...

Charles Mbogo (KEMRI)
Chioma Amajoh (NMCP, Nigeria)
Egon Weinmueller (BASF)
Gerry Killeen (IHI)
Hmooda Toto Kafy (Khartoum MFI)
Jason Clarke (VBC)
Jo Lines (LSHTM)
Michael Macdonald (USAID)
Peter DeChant (VBC)
Rose Peter (Arysta)
Shiva Murugasampillay (WHO)
Uli Fillinger (LSHTM)
3. Decision-making framework
Progress so far

• First draft complete: ‘When and where to use Larval Source Management (LSM) for malaria control and elimination in Africa.’

• 27 page A5 document designed for program managers to decide when and where to use LSM.

• To be completed once the LSM Operational manual is finalised, so that the two documents exactly correspond
Larval control is mentioned for the 1\textsuperscript{st} time in a World Malaria Report in 2012

Larval source management strategies

WHO recommends that in a few specific settings and circumstances, the core vector control interventions of IRS and ITNs may be complemented by other methods, such as mosquito larval source management. Anti-larval measures are appropriate and advisable only in a minority of settings, where mosquito breeding sites are few, fixed, and findable (i.e. easy to identify, map and treat). Reports received from national programmes indicate that 27 malaria-endemic countries worldwide use larval control in certain specific foci of malaria transmission, including 9 countries in the African Region, 5 in the Region of the Americas, 3 in the Eastern Mediterranean Region, 6 in the European Region, 2 each in the South-East Asia and Western Pacific Regions. Various larval control strategies were reported, and many countries engaged in more than one type of larval control activity. In 2011, 9 countries reported activities involving habitat manipulation (temporary changes to vector habitats) and 9 reported some form of habitat modification (long-lasting physical transformations to reduce vector larval habitats). Larval control through chemical larviciding was reported by 16 countries, while 13 reported biological larviciding activities. Reports from endemic countries give an indication of the range of larval control methods employed, although the scale of efforts are not quantified and the impact on individual country malaria burden is not easily measured.
Discussion: next steps for LSM...

1. Is there further need for operational indicators of success? We have described how to evaluate LSM in the Operational Manual, but is there a need for further guidance here?

2. Should we recommend specific branded products for LSM? WHOPES currently only has a list of recommended formulations, so for specific products one has to delve into the WHOPES meeting reports.

3. What (if anything) should we be doing to encourage LSM? Such as capacity building for environmental management (e.g. training courses for program managers run by entomologists and engineers).

4. What (if any) further research on LSM is needed?

5. Anything else?