Malaria Consortium’s experiences on mHealth in Cambodia

Pengby Ngor
JITMM Conference, Bangkok, 11-13 Dec 2013
Background

• Cambodia has set a goal of eliminating malaria by 2025. Malaria Consortium has played a important role in supporting the surveillance system to National Malaria Centre of Cambodia since 2009.

- To move towards pre elimination and eventually elimination there is a need not only for case based reporting but case based reporting in real time to allow for direct response to each case as it is detected rather than waiting until the end of a particular ‘reporting period’.

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>PRE-ELIMINATION</th>
<th>ELIMINATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALE UP INTERVENTIONS, REDUCE ARTEMISININ RESISTANCE AND BRING MALARIA TRANSMISSION BELOW 2 CASES PER 1,000 POP. (2011-15)</td>
<td>INITIAL FOCUS ON P.FALCIPARUM (2016-20)</td>
<td>ELIMINATION OF ALL FORMS OF MALARIA (2021-25)</td>
</tr>
</tbody>
</table>

Monitoring & Evaluation plus Operational Research
Surveillance system

- Malaria Information System (MIS)
- Day 3 positive alert system
- Malaria Alert System (Day 0)
- Referral System
- Stock Out Alert System
Cambodia Day 0 Malaria Alert System

- Uses the model piloted by the Day 3 positive system
- Web based system – more robust than FrontlineSMS
- Malaria cases reported using very simple code
- Simple SMS (5 digit) are sent by VMWs and health centre staff

<table>
<thead>
<tr>
<th>VMW</th>
<th>HC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species (F, M, V, N)</td>
<td>Age</td>
</tr>
<tr>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

- Ex: F23M0
- Implemented in 5 ods with 298 VMWs and 23 health centre staff provided with basic phones
Day 0 – A unique public / private partnership between CNM, InSTEDD and Mobitel

InSTEDD

Mr. Khouy Long, Operations Manager
InSTEDD Innovation Lab
Phnom Penh Center, 4th Floor,
Teou Beacc, Phnom Penh

Date: Mar 10, 2011

Ref: Proposal for SMS with Mobitel

Dear Mr. Khouy Long:

As per your request on the proposal for SMS with Mobitel, we are pleased to offer InSTEDD in cooperation with the Ministry of Health and the National Center for Parasitology, Entomology and Malaria Control (“CNM”) our support to its efforts in the elimination of Malaria by providing the Ministry and CNM access to our network services.

Included in the service we will provide the following:

- Free SIM cards to health workers, provided that they submit to CNM to certify and return to CamGSM the complete registration forms
- One shortcode accessible within the Mobitel network
- Free on-net messaging between the group

The above offer is subject to terms and conditions set out in a separate Agreement.

In order to facilitate this project, we will be more than pleased to collaborate with the InSTEDD and/or any representative thereof for the technical processes related to setting up the above services.

Through this partnership, we hope that our contribution would be significant enough to help accomplish the InSTEDD and CNM’s task at hand, and ultimately lead to a common goal of providing meaningful services to the Cambodian people.

Sincerely,

KAY LT. (CAMBODIA) Co., Ltd

CC: His Excellency Duong Socheat - CNM Director
Day 0 reporting by SMS from village malaria worker and health centre
VMWs being trained in the day 0 alert system in Koh Sla HC in Kampot
Day 0 web based interface – message centre

Use this to send a free SMS message to VMWs in Khmer
Day 0 web based interface – mapping of cases
Challenges and next steps

**Challenges**

- Difficult for training them on how to use the phone
- Some phones are broken or lost
- The coverage area network of mobile company that we are collaborating is limited.

**Next steps**

- Deals with other mobile operators
- National Malaria Control Program will implement this system in other Operational Districts in next year.
- Day zero software would require some minor modification
- Replace basic phone with smart phone?
Lessons learned

• Introduce the new technology to community level
• Get information from remote area in real time with low cost
• Effective low cost communication system linking all VMWs and health centres with national and district staff
• Cost effective ($100 per user setup costs) uses simple phones with minimal ongoing costs
• Deal signed with Mobitel to provide free SIM cards to all VMWs with no restrictions and free messaging within the group
• Deal signed with SMART and MOBITEL to provide free short and long code SMS
• Phones use Khmer script and software can send SMS to all, or defined groups of users (such as health information messages to all VMWs in a province) for free.
Thank you