Worksite Programs for Malaria Elimination

Best Practices & Lessons Learned from Cambodia
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Malaria elimination requires finding and treating every last transmittable case of malaria, and this means ensuring that those most at risk have rapid access to testing and treatment services. As the vector breeds in forests in the Greater Mekong Subregion (GMS), communities who live and work in forested areas are key groups. For transient workers who seek work in these areas, many of whom do not have the knowledge, language, paperwork or comfort-level to seek professional medical care when they are on-the-move or on site, their risk of malaria infection is compounded by a lack of accessible health services. Providing quality assured health services to these workers – often in remote areas – is also challenging.

Worksites including dams, mines and construction sites attract mobile migrant populations (MMPs), and are frequently located close to forested areas with evidence indicating that mature rubber plantations also provide favorable conditions for transmission. For worksites at a distance from forest, the risk of infection comes from mobile workers in search of work arriving from the endemic areas. Worksites therefore present an excellent opportunity to reach this moving population of workers with malaria services.

In 2013, Population Services Khmer (PSK) launched its malaria worksite program on 45 plantations in five malaria endemic provinces. By the end of 2016, the program was active in 131 plantations in seven malaria endemic provinces, with 202 embedded, stocked and trained malaria workers. This document summarizes the program’s key learnings and recommendations.

### Worksite Program Objectives

1. To support the National Malaria Control Programs to eliminate malaria among workers residing in or near plantations and other worksites;

2. To closely collaborate with plantation owners/managers to promote and protect their workers’ health.
In Cambodia, PSI/PSK launched its worksite program in 2012 with a national full census survey that screened over 1,450 enterprises, conducting in-depth interviews at 571 worksites, which together employed nearly 98,000 workers. Information was collected on health services on site or in the vicinity, the accommodation provided to permanent and seasonal workers, the type of crops grown, the owner’s nationality, and seasonal peaks in workers. Worksites were interviewed if they had more than 80 workers on site, on the basis that this represented a medium-sized workforce where the logistics to set up test-treat-track services would be cost-effective. Sites selected for inclusion in the program were determined by:

- Number of workers on site (80 or more)
- Presence of risk factors, including:
  - Proximity to a forest
  - Low availability of quality health services on site or in the immediate vicinity, including malaria test and treatment services
- Willingness of the owner/manager to participate in the program.
Successful worksite programming depends on a mutual understanding and good relationships with: (a) Provincial Health Departments and other relevant government authorities, (b) Worksite owners/managers, (c) the embedded malaria worker (MW), and (d) the MW’s supervisor. After securing government support, PSI carries out three visits with the worksite owner or manager to gain approval and build trust and good collaboration to ensure smooth implementation.

The distinct purposes of the three visits are to:

1. Build an understanding between worksite owners and the program on program rationale, benefits and clarify mutual expectations.
2. Recruit Malaria Workers who will subsequently be stocked, trained and supported.
3. Invite owners/managers, MW’s and their supervisors to a training workshop.

**Advocacy Tips**

1. **Good communication**
   - Call ahead to arrange visits at a convenient time for the worksite, and confirm. If delays or changes are expected, communicate this as soon as possible. Clear messaging and transparent communication in particular helps to gain access to unregistered worksites who may be wary of outsiders.

2. **Involve Supervisors**
   - Including the MW supervisor builds support for the MWs additional responsibilities, e.g. taking time to visit sick workers or attend trainings.

3. **Health Workers**
   - Messages to the worksite owners/managers that have proven most successful have focused on “Helping You to Keep Your Workers Healthy!”
The success of the program depends on the availability, commitment and skill of the MWs, and this begins with good recruitment. PSI recruits one to three workers depending on the size of the site.

Minimum criteria for recruiting Malaria Workers

- Able to read and write Khmer.
- Authorized by the worksite manager/owner to work as a Malaria Worker.
- Supported by his/her direct supervisor to work as a Malaria Worker.
- Committed and willing to provide malaria care to his/her fellow workers.
- Able to use a basic smart phone.
- Part of the permanent staff on the worksite.
- Agrees to work for a minimum fee.

Recruitment Tips

1. Positioning
PSI has found that MWs who are already regarded as leaders on site or have other key responsibilities (e.g., salary distributors) are particularly effective MWs, as they are well known and tend to move around the site more.

2. Commitment
PSI’s highest performing MWs are those who feel a deep personal commitment and pride in being able to help others and improve the health of those around them.

3. Curiosity
An interest in learning and a natural curiosity are good traits to look for in a MW.
Mutual understanding, trust and good communication are important factors for a successful worksite program. A formal half-day workshop is recommended for the worksite owners/managers, MWs and their supervisors to build a clear understanding of PSI and its Malaria Worksite Program, and the roles and responsibilities of worksite management, the MWs — and PSI. This understanding is formalized by the signing of an agreement between the worksite representatives and PSI to officially outline the collaboration.

### Orientation Tips

1. **Government participation**
   Inviting relevant government representatives from the NMCP, and appropriate local government departments, such as health, labor, training and commerce is key in lending additional weight and officially recognizing each partners’ commitment in public.

2. **MW recognition**
   Providing new MWs with a physical symbol of their new role (e.g. a t-shirt, cap, raincoat, certificate etc.) can go a long way to building the pride and commitment of a strong MW. Certificates signed by the government can also be a powerful tool.

3. **Social interaction**
   A workshop dinner is a great opportunity to allow the worksite, government and PSI representatives to get to know each other socially and build relationships.
Malaria Worker Training

As MWs often have very little medical experience and have varied educational backgrounds, training is a critical step to ensure that they understand their responsibilities and are able to perform them with confidence and to the standard required.

### To Test, Treat and Refer

- Your job is to test every person who comes to you with fever using a RDT.
- Your job is to treat the positive cases with the correct drug.
- Your job is to refer any pregnant women, children under 5 years old, or people with symptoms of severe malaria to the nearest health facility.

### To Provide Clear Information

- Your job is to instruct all positive cases to take the full 3-day course of drugs.
- Your job is to explain to workers the benefits of sleeping under a treated net every night.
- Your job is to explain why drug cocktails are dangerous and do not make the patient well again.

### To Collect Data

- Your job is to keep the malaria drugs and tests in a safe, dry place.
- Your job is to clearly record each patient seen in the Malaria Patient Register.
- Your job is to give the Malaria Patient Register to a PSI staff member monthly.

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**Malaria Case Management**

The PSI training ensures that MWs can recognize malaria symptoms and assess danger signs, can correctly and safely use an RDT, read the test results, dispense the appropriate antimalarial drug with proper counseling to the patient to (a) complete the full 3-day course, (b) return if symptoms persist or worsen, and (c) prevent malaria by consistently sleeping under a treated net. Accurate and complete case reporting, either on paper and/or smart phone, is also a vital part of the training, as is correct completion of referral slips and directions for severe cases. As cases drop, treatment and advice for non-malaria fever is now being added.

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**Are you working in the forest or plantations?**

*You are at risk of Malaria!*

If you have a fever

**ALWAYS get tested FIRST!**

If positive only take MOH recommended drug

COMPLETE the full 3 days course

NEVER take cocktails for malaria

Protect Yourself from Malaria, Always sleep under a treated net!
Informed, motivated and engaged MWs will be the most effective and reliable at testing and treating malaria appropriately, and reporting their data accurately and regularly. A worksite program can support its MW volunteers in a number of ways which will underpin the program’s success.

Appropriate Incentives

MWs are volunteers, however material incentives are appreciated and PSI provides support in the following ways:

- **Phone credit and $15 stipend** for performance-based results, e.g. at least 5 tests conducted and reported each month
- **Material recognition**, such as t-shirts, caps, raincoats, and certificates.
- **Signs or stickers** that the MW can use to promote their location and services.

Incentives should be in line with government policies, as well as any incentives provided by other implementing partners working with volunteers on worksites and elsewhere to ensure the system is consistent and fair.
Supervisor support

- MWs report that an important factor in their effectiveness and enjoyment of their responsibilities is having the support and understanding of their supervisor. This may include offering more flexible working hours to allow them to visit patients or to attend training workshops.

Supervisory support visits

- At least one visit per month ensures that MWs feel supported and have a chance to ask questions and receive updates.
- Support visits should also include intermittent quality assessments on the MW’s skills and the care they are providing.

Refresher training

- Following the initial training, annual refresher training is recommended to keep skills sharp, and bring MWs from different worksites together again. This allows them to share experiences, and creates a comaraderie as well as some healthy competition.
- The distribution of visual job aids on correct RDT use and ACT dosage by age or weight, as well as recognizing danger signs are key to help each MW’s learning curve and serve as a useful reminder aid.

Trusted supply chains

- MWs cannot work without a secure, uninterrupted and regular supply of malaria RDTs and ACTs. Regular stocking is absolutely critical.
- Providing other health products is also recommended, including condoms, ORS plus zinc and basic first aid kit supplies.
Quality Assurance

The Quality Assurance App

PSI’s Health Network Quality Improvement System (HNQIS), is a tablet-based app for staff to plan, assess, monitor and continually improve the quality of care provided through networks of providers. A malaria HNQIS was rolled out in Cambodia in late 2016, and also in Lao and Myanmar in early 2017.

The app is used during supervisory support visits and using a checklist, the provider is scored as he/she takes care of a patient suspected of having malaria, or by simulating a case. The following key areas of correct case management are assessed with a standard inbuilt feedback script to highlight why it’s important to test, why it’s important to correctly fill out a report for each positive case etc.

- Recognition of severe malaria symptoms
- Correctly using an RDT
- Prescribing treatment according to national guidelines
- Appropriate patient counseling
- Work place assessment.

Remember!

Assessments are used to help the MW to continually sharpen their skills. They are not a “test.” PSI teams report that assessments result in faster improvements in quality when the provider feels relaxed and supported. They are also a useful opportunity to help PSI staff learn more about the constraints that the MW is working under in order to improve support to the MW.

Emerging Ideas

Based on its experience to date, PSI is considering some new ideas to continue to improve provider service quality.

- An incentive for increasing scores, recognizing good performers and promoting friendly competition?
- A worksite-based QA score based on LLIN coverage, BCC, support for the work of MWs?
- A help line to call with any questions on the QA app?
Quality Assurance Tips

PSI’s quality assurance component rests on the following principles:

**Partnership**
Assessments are carried out in the spirit of support, learning, mutual understanding and ensuring the best possible health care is provided to the patient. They are not done to penalize the MWs.

**Regular assessment against best practices**
Assessments are objective (not subjective) measurements against standardized best practices.

**Immediate feedback**
A belief that learning happens best when positive feedback as well as areas needing improvement is provided immediately after an assessment is completed.

**Benchmark performance**
As all assessments use the same measures, MWs can be categorized into Class A (high), Class B (average) and Class C (poor) to track the quality of service across a full network and how this changes over time.

**Tailored support**
Benchmarking providers allows the program to concentrate on behaviors that need improving and support visits can be more efficiently scheduled (for example, an A-class provider does not need visiting every month).
The goal of setting up services on worksites is to test and treat as many cases as possible. Pro-actively creating opportunities to boost testing rates has been found to be important and the following five ideas are ways that PSI has successfully increased testing rates from 2013 to 2016.

1. Link incentives to testing
   While testing suspected cases was always a key responsibility of a MW’s work, incentivizing the MW to test by linking their monthly stipend to a minimum of five tests in the last month has proved very successful. It should be noted that as malaria cases fall, some MWs may see very few suspected cases, but this approach encourages a more pro-active ‘get out there and look for suspected fever cases’ behavior.

2. Integrated health services
   As malaria drops across the region, malaria services alone do not ensure the relevance of the MWs. By offering other services that are in demand on the sites, MWs have the opportunity to also offer malaria BCC messages, and other screening services. Additional health services should be determined in consultation with the worksite, PSI’s strengths, the country’s policies and may include reproductive health products, treatment for diarrhea, colds, headaches and basic first aid.

3. De-worming days
   De-worming days are an easy, safe and inexpensive way to attract workers and their families to receive a popular service and create an opportunity to offer voluntary malaria screening and treatment. In 2016, PSI/PSK conducted two deworming campaigns in all plantations, which tested 2,928 workers, and found 11 positive cases. This may sound low, but in an elimination setting, every case counts.

4. Screen and treat on arrival
   Worksite owners are being encouraged to test workers as they arrive on site and provide BCC messages as well as alert them to the fact a MW is on site providing free malaria and other services. Screening and treating workers as they arrive (and exit if possible) means “malaria free” worksites are protected from re-infection and onward transmission to other sites, is reduced.

5. Cash for fevers
   An innovative system which offers workers with fevers to get tested by giving them a small cash incentive is being piloted with an additional cash incentive if they bring co-workers or family members to be tested who may also be at risk.

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<tr>
<td>2013</td>
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<tr>
<td>2015</td>
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<td>2016</td>
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Reporting every single case back to PSI/PSK is vital to ensure each positive case reaches the NMCP’s national database. The reporting system needs to strike a balance between being timely, accurate and robust – and being user-friendly for the MW to maintain on a regular basis. PSI recently switched from paper to phone app reporting, and the transition so far has been smooth, with data entering directly into PSI’s DHIS2 database for analysis and a verification period to compare the app data against the paper records and cross-checking with the used RDTs.

**Reporting Tips**

1. **Training and support**  
   Provide initial and regular refresher training on how to correctly report and why it’s so important. Use regular visits to check any regular reporting errors that need fixing. Ensure that the MWs understand why each piece of information is being collected, and its significance to the national elimination strategy.

2. **Simple systems**  
   Keep documents and the number of data fields to a minimum to reduce the time burden and opportunities for error. A phone app can make the process simpler and less burdensome.

3. **Incentivize reporting**  
   Link a material incentive system with the data reporting, e.g. payment of stipends.

4. **Verification**  
   Ensure that staff have a way to verify data reported, e.g. through checking any paper records or counting used RDTs.

5. **Feedback loops**  
   Give MWs a way of seeing the data that they have reported so that they know their data is important and does not disappear into a big black hole!
Key Takeaways

1. Advocacy
   Build a transparent and trust-based relationship with worksite owners/managers from the beginning and maintain open communication lines by responding to questions quickly and by providing answers that make sense to them.

2. Recruitment
   Ensure that selected MWs are reliable, trusted and motivated workers who will maintain committed to their responsibilities, and have the support of their supervisor.

3. Training and support
   Provide initial and ongoing training and support to MWs to ensure they feel valued, confident and motivated throughout their engagement.

4. Quality assurance
   Use standardized quality assurance assessments as an opportunity to improve provider performance and sustain their commitment to learning.

5. Increase testing
   Employ a variety of activities and approaches appropriate to each worksite to build and maintain the visibility, relevance, accessibility and reliability of the MWs’ services to all worksite workers.
GEMS is a PSI program that partners with the National Malaria Control Programs in Cambodia, Lao PDR, Myanmar and Vietnam to strengthen case management and surveillance in the private sector to accelerate each country’s progress towards their ambitious malaria elimination goals. GEMS brings together PSI’s longstanding experience working with the private sector in the region, malaria achievements globally, cutting edge technological tools, a solid logistics infrastructure, strategic partnerships, and a new thinking in disease surveillance. GEMS is supported by the Bill & Melinda Gates Foundation.

**What is GEMS?**

- Mapping private sector health care providers and worksites attracting mobile workers.
- Comprehensive training and routine supervision to ensure high quality malaria care and data reporting.
- Securing supply chains for quality assured RDTS and first line treatments.
- Establishing routine reporting systems for all suspected and confirmed cases and promoting data use.
- Actively finding and investigating cases and contributing to molecular surveillance.

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