



U.S. President's Malaria Initiative



Technical Brief

The Proof Is In Planning, Monitoring and Supervision

PMI VectorLink Ensures Efficiency, Quality & Efficacy in Vector Control Operations

Vector Control Operations require rigorous planning, supervision and monitoring. The PMI VectorLink Project has developed a cadre of planning tools, job aids and supervision and monitoring checklists to ensure efficiency, quality, and effectiveness at the national and district levels to help host-country governments carry out IRS and other vector control activities.

Planning Tools

Determining quantities of resources and where to distribute them requires significant planning efforts. The PMI VectorLink Project uses a **Quantification Tool**, developed under the PMI Africa Indoor Residual Spraying Project (AIRS) to calculate the total



amounts of the various resources, such as seasonal workers, spray equipment, insecticide, and Personal Protective Equipment (i.e. overalls, gloves, masks, helmets), required for a successful indoor residual spray (IRS) campaign. This tool is used at government and stakeholder meetings to support planning efforts at both the national and sub-national levels, and contributes to annual work planning efforts for the country programs.

Once the total amounts are decided, micro-planning meetings are held at the district level with all the relevant stakeholders, including technical officials, political leaders, and other key influencers to determine where and how resources will be allocated. A **Micro-Planning Tool**, developed under PMI VectorLink, guides the process. This tool is more detailed than the Quantification Tool as it calculates the quantities of each resource needed at each spray operation site by district. The Micro-Planning Tool

also determines the number of seasonal workers needed to carry out the campaign – spray operators, team leaders, supervisors, storekeepers, washers, security guards, pump technicians, etc.

As the date for the launch of the spray campaign approaches, logistics preparations intensify. To support in-country teams, AIRS developed the **Race to the Starting Line Tool**, which lists the critical milestones that must be achieved in the final eight weeks before the start of a spray campaign to ensure it begins on time.

PMI VectorLink developed **Spray Calendars** to reduce the length of spray campaigns by providing spray teams with daily itineraries. Daily transportation of spray teams is one of the biggest contributors to the cost of IRS operations in all countries. Spray Calendars enable field teams to draw up transportation plans, which for example, ensure that vehicles are rented only on days when they are absolutely required.

Capacity Building & Training

The PMI VectorLink Project has made major strides in capacity building for planning, implementation and monitoring of IRS to prevent malaria. Leaders and managers at all levels of planning and implementation (central, regional, district and community) have acquired skills and knowledge to effectively conduct high quality IRS campaigns. In addition to the leaders, tens of thousands of community-level workers have been equipped to deliver IRS at the household level.

The project has developed and rolled out various tools to support the impartation of skills. Key among these was the development of a new advanced

Training Curriculum for IRS for all levels of implementation. The curriculum contains modules for all the different activities and positions involved with the planning and implementation of IRS. For the first time, training modules were developed for



leadership and supervisory positions such as District IRS Managers. All the modules contain accompanying training materials, such as facilitator guides and participant handouts. The curriculum takes into account the latest global best practices and developments. It incorporates modern teaching techniques, such as adult learning methods.

The PMI VectorLink Project has made initiatives to build and leverage capacity across different IRS programs. One vehicle through which this is happening are the **Capacity Building Workshops (“boot camps”) for IRS Managers** that the project has conducted in several countries, with participants representing all the relevant stakeholder groups and partners in each country.

Supervision

VL trains and supports district officials and other relevant stakeholders in the supervision of spray activities in the communities. **Supervision Checklists** were developed for supervisors of spray campaigns. The supervisors include project staff and Government/District officials. The user-friendly checklists cover all the key aspects of spray operations, such as compliance with safety procedures, spray personnel conduct in the community, and insecticide application techniques.

The checklists, which come in both paper and digital (e-) formats for use with mobile phones, include:

1. Spray Operator Morning Mobilization & Transportation Vehicle Inspection
2. Storekeeper Performance
3. Homeowner Preparation & Spray Operator Performance
4. End-of-Day Cleanup



The PMI VectorLink Project recognized the importance of supervising spray activities by direct observation. The project mandated the practice of supervising directly observing spray actors at work, and developed a tool to support this. The **Directly Observed Supervision (DOS)** checklist is administered by Spray Team Leaders and other supervisors as they work with teams in the community.

Monitoring Performance

IRS requires strict supervision and monitoring to ensure spray activities are carried out safely, efficiently and successfully. The PMI VectorLink Project introduced a performance culture in the implementation of IRS operations among spray personnel to guarantee the objectives of spray campaigns are achieved. The introduction of the performance culture has resulted in operational efficiencies, such as the overall reduction of the length

of spray campaigns (which in turn has resulted in lower overall costs of items such as vehicle and warehouse rentals).

The **Spray Performance Tracking Sheet** was developed to enable supervisors and spray teams at an operation site to measure their performance against set targets on a day-to-day basis. The tool allows all cadres of spray campaign supervisors, including Team Leaders, to have access to performance data in real time. This enables them to promptly address any issues that may arise in the course of a spray day, and to take relevant remedial actions to ensure the success of a spray campaign.

The Spray Performance Tracking Sheet measures performance against key performance indicators:

1. The number of structures sprayed per spray operator per day,
2. The number of structures sprayed per unit (sachet or bottle) of insecticide, and
3. Spray progress and coverage rates.

The project developed and rolled out an electronic version of the performance tracker. The **Performance Monitoring Tool (PMT)** enables daily monitoring of spray performance and the insecticide stock by all partners and stakeholders involved in supervision of spray activities, including district and MOH officials. The PMT enables prompt decision making during spray campaigns.

Logistics & Warehouse

The project's logistics, supply chain, and warehousing procedures conform to the guidelines and requirements of the PMI Best Management Practices. On average, a country will have around 30 stores spread across the target spray area. The **IRS Storekeeper Pocket Guide** contains checklists for all the day-to-day tasks of IRS storekeepers. The storekeepers are trained to promptly record all stock movements, and to ensure that insecticide stock balances on the ledger and stock cards are accurate at all times. The project developed and implements a

supervision checklist dedicated to assessing and monitoring the performance of storekeepers, including the administration of spot stock counts. The project uses an **e-Inventory** tool, developed under AIRS, to enable logistics and warehouse managers to track day-to-day stock movements to avoid stock-outs during spray campaigns. All insecticides receive a unique serial number to monitor stock movement between team leaders and spray operators – the insecticide supply chain’s ‘last mile.’

Job Aids

With 400-900 spray operators in the field during a campaign, standard procedures are essential to ensuring success. The project uses job aids for the different positions held by temporary employees of spray campaigns to achieve a higher level of standardization in operational performance. The **Spray Operator Pocket Guide, Team Leader**

Guide, and the **IRS Storekeeper Pocket Guide** can be referenced quickly in the field should any operational or safety questions and concerns arise, and help personnel perform their jobs successfully.

Alternative Models for IRS



The project uses alternative models of IRS implementation to ensure cost-effectiveness and sustainability. With the new models, alternative transport means have been explored, such as having spray teams travel through the community on foot and by bicycle; and using horse-drawn carts to transport spray teams. The project has leveraged Community Health Volunteer networks to deliver IRS in some countries.

ITN Activities

PMI VectorLink conducts insecticide-treated mosquito nets (ITN) durability monitoring; assessments of and technical assistance for continuous and/or mass ITN distribution; and supports social behavior change communication to promote the correct use and handling of nets. We work closely with donors, partners and National Malaria Control Programs (NMCP) and the growing cadre of local vector control and ITN distribution experts to facilitate joint planning, implementation, supervision, monitoring and evaluation of activities, supporting NMCP and in-country malaria partner capacity building, national ownership, and sustainability.

The image shows the cover of the 'IRS Storekeeper Pocket Guide' from July 2018. At the top, there are logos for USAID (FROM THE AMERICAN PEOPLE), CDC (Centers for Disease Control and Prevention), and the U.S. President's Malaria Initiative. Below the logos is a dark blue banner with the text 'IRS Storekeeper Pocket Guide July 2018'. The main image on the cover is a photograph of a woman wearing a white protective helmet, a white face mask, and a blue long-sleeved shirt. She is holding a red clipboard. The background of the photo is a rural outdoor setting with trees and a building. At the bottom of the cover is the VectorLink logo, which includes the text 'U.S. PRESIDENT'S MALARIA INITIATIVE' and 'vectorlink' in a stylized font, with the tagline 'INTELLIGENT > INNOVATIVE > INTEGRATED' below it.