



PRESIDENT'S MALARIA INITIATIVE



INDOOR RESIDUAL SPRAYING FOR MALARIA CONTROL

Quarterly Report

Indoor Residual Spraying (IRS) for Malaria Control
Indefinite Quantity Contract (IQC) Task Order 1

January 1–March 31, 2010

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Liberia

Background

The year 2010 marks the second year of IRS implementation in Liberia. This report, covering the period January to March 2010, describes the activities undertaken in preparation for the second spraying campaign. For 2010, six districts in three counties are scheduled to be sprayed at the beginning of April 2010. The target is to protect 50,000 households with IRS. The previous IRS round was held from June 4 to August 9, 2009.

This year's activities are being designed and implemented by RTI International, under its objective of improving human health by turning knowledge into practice. This mission blends well with this year's World Malaria Day theme of Count Malaria Out—turning knowledge into practice will enable the world to eradicate malaria. For 2010 IRS, RTI introduced a new approach of using participatory methodologies as a way of stimulating community participation. IRS partners are the National Malaria Control Program (NMCP), Ministry of Health and Social Welfare (MOHSW), local governments in the counties that were sprayed, Firestone, Mentor Initiative, and the Anti-AIDS/STI/Malaria Awareness Movement (ADAM).

Current Activities and Accomplishments

This quarter, the work focused on establishing operational sites and training people involved in IRS. The program's notable achievements included

- Establishing seven operational sites
- Conducting the first ever applied entomological training in Liberia for 44 participants, who are now capable of conducting vector surveillance activities
- Establishing an insectary at Liberia Institute for Biomedical Research (LIBR)
- Training 21 IRS mobilization trainers
- Conducting IRS training of trainers (TOT) for 45 participants
- Mounting a display stand at the USAID Mission Health Fair
- Conducting pre-spray environmental compliance inspection

Planning and Assessment

The year's activities have been streamlined into eight key result areas.

1. Program Management
2. Planning and Assessment including Geographical Reconnaissance
3. Environmental Compliance
4. Procurement including Supply Chain Management
5. Information, Education and Behavior Change Communication
6. Spray Operations
7. Entomological Surveillance

8. Supervision, Monitoring, and Evaluation

The program conducted a detailed assessment of the new operational districts and subdistricts in January 2010 that required multiple field visits over several weeks. The assessment focused on collecting demographic, geographical, physical, and epidemiological characteristics of each target district. This vital information has been used to select operational sites and quantify commodities including human resources requirements. Table 1 shows the districts, subdistricts, and locations of the operational sites. The IRS program will use the assessment of the administrative districts and subdistricts to plan spray rounds. For microplanning purposes, the program will use a clan-based approach that will encourage clan participation in attending meetings, developing spraying schedules, and recruiting mobilizers and spray operators.

Table 1: County, District, and Subdistrict of IRS Operation Sites

County	District	District/Subdistrict	IRS Operational Site
Grand Bassa	Kporkon (District #1)	1. Compound #1	Bokay's Town
		2. Owens' Grove	
		3. Worr (Timor)	Jacob Larth Town
	District #2	4. Camp Wood	Garneo Town
		5. Compound #2	St John River City
		6. St John River City	
	District #3	7. District #3 A	Compound #3
		8. District #3 B	
		9. District #3 C	
Margibi	Firestone	10. Firestone	Duside
	Mamba Kaba	11. Mamba Kaba	Schefflin
Montserrado	Careysburg	12. Careysburg	Careysburg

The program is targeting six districts for the 2010 IRS campaign. However for IRS planning and data capture purposes, we have divided the districts into 12 subdistricts. The majority of stakeholders know these locations as subdistricts, which are also well defined for operational purposes. The number of households per district ranges from 2,600 to 12,000 (see Table 2 below).

Table 2: Households per IRS District

District	No. of Clans	No. of Towns	Big Towns and Cities	No. of Households
Camp Wood	5	356	0	7,167
Compound #2	6	244	1	3,338
Subtotal	11	600	1	10,505
St John River City	3	0	4	2,678
District #3	13	535	3	12,641
Subtotal District #2	16	538	7	15,319
Worr	5	291	0	5,274
Owens' Grove	3	149	1	3,123

District	No. of Clans	No. of Towns	Big Towns and Cities	No. of Households
District #1	3	0	3	6,707
Subtotal Kporkon	11	440	4	15,104
Careysburg	0	175	6	6,818
Mamba Kaba	5	0	4	11,986
Grand Total	43	1,750	22	59,732

The data exclude that of Firestone.

Procurement and Logistics

The final choice of pyrethroid class insecticide was made on February 15, 2010, by the MOHSW and an order was placed immediately after. The procurements have been divided into local and international procurements and orders have since been placed. The delivery of internationally procured items is expected any time and the local procurements were completed during the reporting period.

Environmental Compliance

The program has established seven operational sites. Each has a warehouse, soak pit, and washing and bathing facilities. A total of five new soak pits have been established at five new sites and two old sites are being renovated.

Warehousing

Finding warehousing facilities has been a challenge because many buildings were destroyed during the war. The program was able to find old buildings that required renovations, such as the ones shown in Figure 1. They are centrally located and will be used as regional warehouses to serve Grand Bassa County and can be used to serve Grand Gedeh or Nimba counties, should the program move to these areas. The building on the left was the only option available in St. John River City. Three such buildings have been identified and renovated in each county. The picture on the right shows one of the field warehouses.

Figure 1: IRS Warehouses



St John River City Warehouse



Garneo Town Warehouse

A new warehouse that was built using local materials was established in Worr subdistrict.

Pre-spray Compliance Inspection

Dr. Gaspard Bikwemu, senior environmental compliance inspector, conducted a pre-spray compliance inspection. He made recommendations to improve the compliance of the sites.

Waste Incineration

A suitable incinerator that meets the required specifications has been found at the United Nations Mission in Liberia facility. Efforts are underway to secure the required permission to use this incinerator to incinerate this year's and last year's IRS waste.

Information, Education, and Communication (IEC)

The program will use government Community Health Volunteers (CHVs) to gain acceptance in the communities that will receive IRS, which is critical for IRS to succeed. The program has introduced participatory approaches in malaria education into its operations. The IRS program has also developed an appropriate spray operators' manual, adapted from the current manual.

Each CHV will operate from his/her clan of origin and will be deployed one week before the IRS campaign begins. They are expected to work for a maximum of 12 days, broken down into 6 days before the campaign and 6 days during the campaign. Each CHV is expected to cover at least 20–30 households per day or to mobilize the towns based on the spraying schedule. The CHVs are expected to conduct house-to-house mobilization, as well as address community or other meetings. Messages for posters, T-shirts, caps, and the radio have been developed. Radio messages will be in four languages (simple English, Kissi, Kpelle, and Bassa).

IRS Mobilizers' TOT

Twenty-five participants attended a two-day TOT workshop on IRS mobilization in February 2010. Participants were drawn from the NMCP, MOHSW, Environmental Protection Agency (EPA), Ministry of Agriculture (MOA), Ministry of Internal Affairs (District and Town Administration), Firestone, County Health Teams (CHTs), Mentor Initiative and another local nongovernmental organizations (NGOs), and ADAM. ADAM is an implementing NGO under Mentor Initiative. During the workshop, attendees welcomed the introduction of participatory methods of training. A manual on how to promote this approach at the community level was adapted and is now in use. Liberia requires that trainers undergo standard 10-day training in the use of participatory approaches.

IEC materials that were used last season were reviewed and mass production is in progress to distribute to households.

Training of Mobilizers

CHVs from all the targeted districts were given priority to receive mobilization training. They were selected by clan and based on the number of households and towns in that clan. In preparation for the upcoming IRS campaign, a two-day training course for 225 mobilizers was conducted at seven sites in March 2010. Trainers were from NMCP and the CHTs.

Spray Operations

The period under review saw the acceleration of preparatory activities for spray operations. IRS personnel were recruited by the NMCP with guidance from RTI. Candidates were initially selected by the Commissioners in close consultation with the District Health Officers. An IRS TOT was conducted for 45 participants during the week of March 22 in the IRS areas. Participants were drawn from EPA, MOA, NMCP, CHT, the American Colonization Society, and from the private sector (Firestone and Arcelo Mittal).

Building the Capacity of the Ministry of Health and Social Welfare

Twenty-one participants were trained to use participatory methods in malaria education in March 2010. The use of participatory approaches has enhanced the understanding and presentation skills of NMCP and CHT staff. The CHVs have been educated about malaria in general and on IRS in particular. For the majority of these CHVs, this was their first training since being selected to be a CHV. Therefore, the IRS program has managed to impart both knowledge of and skills in malaria, and IRS in particular, to these community volunteers.

Monitoring and Evaluation (M&E)

No major M&E activities took place other than monitoring the refurbishment of the operational sites. Malaria data was collected from the health facilities in the new areas targeted for spraying.

Project Management and Administration

In order to speed up the procurement and distribution of IRS logistics, the program hired a temporary logistics/administrative officer, Mr. Prince Barbor, as one of the IRS supervisors. Dr. Gaspard Bikwemu conducted the pre-spray inspection and Mr. Moses Pamhare, training consultant, supported the IRS TOT for spray operators and ran special training on maintenance of sprayers.

The memorandum of understanding between RTI and NMCP has been signed.

Partnership and Collaboration

In an effort to promote public-private partnerships, the IRS program met with Arcelo Mittal, a private steel mining company, in March 2010. The company is planning to start IRS within its mining complex. Three representatives from Arcelo Mittal attended the IRS TOT. In addition to spraying its company premises, the company is going to spray houses occupied by noncompany employees and will eventually expand their spraying to cover nearby communities as part of their corporate social responsibility.

Also in March 2010, IRS staff held another meeting with Dr. Mabhandi, chief medical officer of Firestone, to check on progress of the IRS program. Firestone sent four participants to the IRS TOT.

Outstanding Activities

- Finalize renovations at operational sites
- Arrival of IRS commodities

Upcoming Activities for April to June 2010

- Train spray operators and support staff
- Conduct spraying campaign
- Commence entomological surveillance activities
- Incinerate solid waste from IRS operations
- Conduct IRS round starting April 2010