U.S. President’s Malaria Initiative VectorLink Tanzania

**Project Duration**
July 2018 – June 2023

**IRS Focus Districts**
Biharamulo, Buchosa, Bukoba Rural, Bukombe, Chato, Kakonko, Kasulu Rural, Kibondo, Missenyi, Ngara, Nyang’hwale, Ukerewe, and Zanzibar

**ITN Focus Regions**
Katavi, Mara, Morogoro, Mtwara, Pwani, Ruvuma, Shinyanga, Simiyu, Tabora, and Zanzibar

**Implementer**
Abt Associates

**Partners**
- National Malaria Control Program (NMCP)
- Zanzibar Malaria Elimination Program (ZAMEP)
- National Environmental Management Council (NEMC)
- Zanzibar Environmental Management Authority (ZEMA)

Malaria is the leading cause of death among children as well as outpatient, inpatient, and hospital deaths in Tanzania. There were 7.1 million cases of malaria in 2020, accounting for more than 26 percent of outpatient visits on the Tanzanian Mainland and for more than 25,000 deaths, predominantly in children and pregnant women.

The PMI VectorLink Project is implementing IRS to reduce the prevalence of malaria in Tanzania to further the NMCP and PMI’s goal of reducing malaria-associated mortality and morbidity in selected districts. The project has also partnered with ZAMEP, NEMC, ZEMA and health districts to strengthen capacity in planning and implementing safe, cost-effective, and sustainable indoor residual spraying (IRS). The project also worked with the NMCP and ZAMEP to distribute insecticide-treated nets (ITNs) through four channels: health facilities, communities, mass campaigns, and schools. PMI VectorLink Tanzania has also promoted equity at all levels of its operations, identifying barriers to women’s participation in IRS and implementing policies to address those barriers, which led to a nearly gender-balanced seasonal workforce. The project has also focused on innovative approaches to achieve greater efficiency, such as piloting mobile data collection and mobile soak pits in year two and scaling both up in subsequent years.

In 2022, the project will spray two districts in mainland Tanzania: Kasulu Rural and Kibondo, along with their respective refugee camps—Nduta and Nyaragusu camps. This will be the last year of PMI-supported indoor residual spraying. ITN activities closed out in 2021.
Year 1 (2018/2019) Results

- Trained 2,899 individuals to deliver IRS in the 17 targeted districts. Of these, 2,442 were spray operators (949 females and 1,493 males), 69 were supervisors (19 females and 50 males), and 388 were team leaders (168 females and 220 males). Females accounted for 39 percent of the trained spray operators. Of all individuals trained for the October 2018–March 2019 IRS campaign, 35 percent (1,360) were female.

- Introduced culturally appropriate personal protective equipment (PPE) skirts for women in Pemba, Zanzibar, where there is a conservative culture. The skirts, worn on top of coveralls, are available to women who are not comfortable wearing coveralls only. The skirts were well-received and were expanded to all of Zanzibar for the subsequent IRS campaign.

- Distributed 288,000 piperonyl butoxide (PBO) bed nets and 148,550 ITN coupons to 179 health facilities in Zanzibar.

- The project employed a pregnant spray operator to cross-check data, an employment opportunity without risk of insecticide exposure.

Sprayed 595,923 structures
Spray coverage of 95 percent
2,404,010 residents protected, including:
78,203 pregnant women
436,700 children under five

Year 2 (2019/2020) Results

- Sprayed 503,567 structures
Spray coverage of 94 percent
1,915,151 residents protected, including:
56,964 pregnant women
373,976 children under five

- Introduced IRS in the three refugee camps of Mtendeli, Nduta, and Nyarugusu in Kigoma region in collaboration with the United Nations High Commissioner for Refugees (UNHCR) and the Tanzania Ministry of Home Affairs.

Woman wearing a PPE Skirt in Zanzibar. Photo credit: PMI VectorLink Tanzania
• Piloted the use of mobile soak pits in three sites in Ukerewe to ensure all accessible locations and islands were reached with IRS services.

• Piloted mobile data collection by spray operators in five hard-to-reach community IRS sites, two in Zanzibar and three in Ukerewe district, to ensure timely data collection, reporting, and data accuracy. With the success of the pilot, the project scaled up its implementation from 20 to 500 additional smartphones for SOP data collection in 2020/2021.

• In collaboration with the Zanzibar Malaria Elimination Program (ZAMEP) and district authorities, provided supportive supervision at 60 of the 179 (34 percent) health facilities of Unguja and Pemba. PMI VectorLink’s target was to visit at least 25 percent of health facilities in Zanzibar. The target was exceeded because of robust support from ZAMEP in terms of transport and personnel.

Year 3 (2020/2021) Results

- Sprayed 598,973 structures
- Spray coverage of 93 percent
- 2,285,089 residents protected, including:
  - 82,057 pregnant women
  - 433,985 children under five

- Used mobile data collection for 527 spray operators (463 in Zanzibar, 40 in Biharamulo, and 24 in Ukerewe). The Zanzibar portion of the Year 4 campaign marked the first fully mobile IRS campaign using PMI VectorLink’s DHIS2 Android capture application, demonstrating the evolution of the VectorLink Collect ecosystem and use of digital tools. This resulted in real-time data for better decision making during the spray campaign.

- Piloted a 1:2 male to female ratio of applicants during spray operator recruitment. Due to low participation of women in prior years, the project encouraged qualified women to apply, resulting in 42% of the seasonal workforce being female, achieving a nearly gender-balanced workforce.

- Closed out ITN activities in March 2021. The total number of ITNs distributed throughout the life of the project is 9,460,813 PBO ITNs.

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<thead>
<tr>
<th>Total ITN Distribution</th>
<th>Mainland</th>
<th>Zanzibar</th>
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<tbody>
<tr>
<td>Through Primary Schools:</td>
<td>5,363,533 ITNs</td>
<td>Through Public Health Facilities: 244,501 ITNs</td>
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<tr>
<td>Through Public Health Facilities:</td>
<td>3,518,680 ITNs</td>
<td>Through Community Distribution Channel: 334,099 ITNs</td>
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Year 4 (2021/2022) Results

- Trained 4,213 field staff and 51 national and sub-national representatives, using U.S. government funds to support vector control activities in the six districts.

- Used mobile data collection for all 2,463 spray operators in the Lake Zone, which resulted in real-time data for better decision making during the campaigns.

- Provided technical support to ZAMEP in conducting reactive IRS in seven selected shehias (local administrative level) of Unguja (Kizimkazi Mkunguni) and Pemba (Ukunjwi, Finya, Konde, Kwale, Kivugo, and Wingwi). The project also completed the installation of the incinerator at Kivunge Hospital and ensured that it was operational.