



Summary of Indoor Residual Spraying in Zanzibar

AFM summarized indoor residual spraying (IRS) activities occurring in African countries based primarily on reports from the World Health Organization (WHO), Global Fund and the President's Malaria Initiative (PMI). Little information was available from other sources. AFM hopes IRS activities will be sustained and expanded as appropriate, and that all donor agencies supporting IRS with public funds will make available detailed and accurate reports in the future. Below is the summary of IRS activities in Zanzibar.

Year of Initiation^a	1950s
Operational Coverage 2006-2007^a	96% targeted structures sprayed
Population Covered 2006-2007^a	1.02 million people (85% of population at risk)
Insecticide(s) Used^{a,b}	Lambdacyhalothrin
PMI FY08 Population Targeted^b	Difficult to determine (see text below)
PMI FY08 IRS Budget^b	\$6,695,000 (20% of FY08 PMI budget)
PMI FY08 IRS Operational Research^b	1) integration of IRS and ITNs 2) quantification of repellent and irritant actions of DDT and pyrethroid insecticides
Global Fund Support^c	No IRS funding

a. Implementation of Indoor Residual Spraying of Insecticides for Malaria Control in the WHO African Region Report:

http://www.afro.who.int/vbc/reports/report_on_the_implementation_of_irs_in_the_african_region_2007.pdf

b. President's Malaria Initiative, Malaria Operational Plans: <http://fightingmalaria.gov/countries/mops.html>

c. The Global Fund to Fight AIDS, Tuberculosis and Malaria: <http://www.theglobalfund.org/en/>

Zanzibar was awarded two Global Fund malaria grants: a Round 1 grant in 2003 and a Round 4 grant in 2005. Neither of the Original Proposals requested funding for IRS.

Tanzania is entering its third year of PMI program funding. There are an estimated 36.7 million people at risk for malaria in Tanzania (35.6 million people on the mainland and 1.1 million people on Zanzibar). The PMI has supported one round of spraying on the mainland and three rounds of spraying on Zanzibar. ICON was the insecticide of choice for all three rounds of spraying on Zanzibar as well as spraying activities in Muleba. In Year 2, the PMI sprayed approximately 40,000 households in Muleba benefiting an estimate 200,000 residents. Both the mainland and Zanzibar's IRS plans are still in draft form. In Year 3, a total of \$3.97 million, \$2 million of which is unspent FY07 funding, will likely support a third IRS campaign in the Muleba district (42,000 households) and a second campaign in the Karagwe district (95,000 households) of Northwestern Tanzania. These areas are characterized by "seasonal, stable transmission." The National Malaria Control Program is also considering spraying an additional 10,500 households on Mafia Island for a total of 147,500 households throughout these three districts. Elsewhere in the FY08 Malaria Operational Plan, the targeted number of households is listed as 120,000 for the mainland.

On Zanzibar, IRS campaigns were conducted on the two main islands of Unguja and Pemba: the first campaign was from Jul-Sep 2006, the second was from Jan-Mar 2007, and the third was from Jul-Sep 2007. IRS coverage (percent of households targeted for IRS actually sprayed) reached 96% in the first round (203,754 households) and 91% in the second round (196,978 households). Early indications are that the third campaign is achieving the same coverage as the previous two. In Year 2, approximately 200,000 households in Zanzibar were sprayed benefiting

an estimated one million residents. In Year 3, the PMI will continue to support spraying on Zanzibar depending on epidemiological and entomological data. The PMI will dedicate \$1.5 million targeting approximately 200,000 households. The costs per household sprayed have been estimated at \$10 per household.

As DDT was de-registered in Tanzania, IRS will be conducted using ICON since re-registration can take up to two years. The PMI will also assist the mainland with the re-registration of DDT (\$150,000 budget) as well as continue to support behavior change communication activities promoting IRS. Total proposed PMI funding for Year 3 is \$34 million, of which 20% or \$6,695,000 will go toward IRS.

The National Malaria Control Program in conjunction with the Ifakara Health Research and Development Center plans to conduct operational research into the cost-effectiveness of integrated IRS and insecticide treated nets using experimental huts and extrapolations based on malaria transmission models. Further operational research will be conducted on the repellent and irritant modes of insecticides.

According to the WHO's 2006-2007 summary of IRS activities in Zanzibar, IRS was interrupted from 1958-1965 due to a policy change. It was re-initiated in 1966 and again ceased in 1987 due to a lack of funds and the appearance of vector resistance to DDT, which caused program failure. The IRS campaign was re-introduced in 2006 with financial support from the PMI and has achieved a dramatic impact on malaria transmission and burden. Being fully partner-funded, a strategy must be devised to sustain the gains made against malaria when donor support ceases in the coming few years.