



## Success Story

# The USAID | DELIVER PROJECT Helps Zimbabwe Prevent Malaria Deaths through Emergency Support to the Indoor Residual Spraying Program



*Ms. G. Moyo, a spray team member working in Lupane district, explains the spraying procedures to villagers.*

**The National Malaria Control Programme estimates that a greatly increased number of deaths, possibly into the thousands, will be averted thanks to the quick action of the USAID | DELIVER PROJECT and other partners.**

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Malaria is the second leading cause of death in Zimbabwe. For many years, one of the key malaria prevention activities has been indoor residual spraying (IRS). While Zimbabwe, traditionally, has had one of the most successful IRS programs in Southern Africa, the IRS activities nearly stopped during the past year because of a continuing severe economic decline. Previously, of the 62 health districts in Zimbabwe, 45 were identified as malaria endemic districts; under normal conditions, they would implement IRS or some form of vector control for malaria prevention. Unfortunately, in 2008, this did not happen.

Because of the economic crisis in 2008, very few national programs were working normally; health worker morale plummeted and trained workers migrated in large numbers to neighboring countries. The cholera epidemic was spinning out of control. The original estimate of 60,000 cases quickly escalated; cholera cases were found in 57 of 62 districts and in all eight provinces. The few health workers who still reported for work—despite going for months without a substantive salary—were completely overwhelmed with the cholera treatment efforts, and they were barely able to handle the health activities, including IRS.

In January 2009, a team from the U.S. Agency for International Development (USAID) visited Zimbabwe to assess the response to the cholera outbreak. It was during this visit that they noticed very few districts had implemented IRS in 2008. If this situation continued, a malaria epidemic was possible. To prevent another public health crisis, in addition to cholera, the USAID | DELIVER PROJECT, funded by USAID and implemented by John Snow, Inc., was tasked with accelerating IRS activities in Zimbabwe using \$200,000 from the project's Task Order Malaria (TO3). The USAID team also secured a commitment from the Department for International Development (DFID) for more than £200,000, which Crown Agents Zimbabwe would administer, to pay for food and cash allowances for spray operators and supervisors; rent trucks and hire drivers for the accelerated IRS operation; print IRS campaign literature; buy fuel for

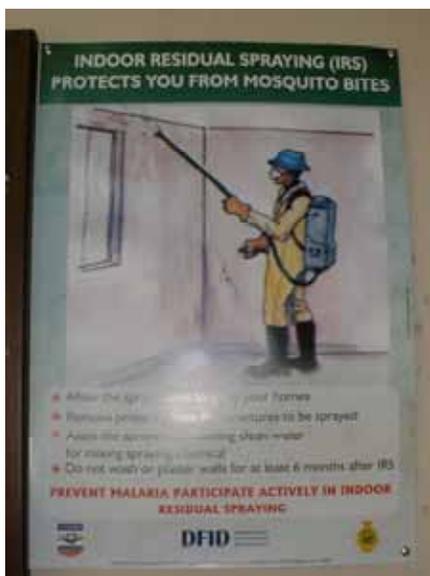
trucks and motorcycles; and provide personal protective equipment for spray operators. Other international partners, the World Health Organization (WHO) and PLAN International, participated in the emergency IRS.

In February and March 2009, the National Malaria Control Programme (NMCP) selected 20 of the most malaria endemic districts to participate in the accelerated IRS campaign. Because the chlorine that was used to disinfect areas for cholera prevention damaged much of the districts' spray equipment, the USAID | DELIVER PROJECT spent some of the emergency funding to procure 250 spray pumps, including spare parts (kits, nozzles, and nozzle caps). After the activities were completed, the project also conducted an accelerated IRS planning workshop and an IRS review workshop. Throughout the two-month duration of the emergency IRS activities, a technical advisor remained in-country to conduct monitoring visits to the 20 districts, in collaboration with the NMCP.



Heavy rains made many roads impassable; it took the entire spray team to free the truck from the mud.

Because the accelerated IRS was an emergency response, the timing was very inconvenient for door-to-door spraying in rural areas. The emergency campaign took place in February and March at the height of the rainy season. Normally, IRS activities would take place between August and December before the rainy season—which lasts from January to March—but the urgency of the situation meant that the project had to manage any weather-related challenges. Heavy rains turned many dirt roads into inaccessible mud pits and several bridges were washed away. Many of the villagers were not at home when the spray teams came; they were often out cultivating their fields or at food distribution points waiting for food aid from the World Food Programme. For several reasons, the team could not spray unless the home owner was present: indoor spraying can only begin after all belongings are removed from the home; the spray team also needs to record demographic information about the family. The team had to wait until the owner returned.



Poster explains basic safety instructions for indoor residual spraying.

The emergency IRS activities were further complicated by the ongoing cholera crisis. Managing the cholera outbreaks took priority and dominated all health system resources; it also monopolized health staff, vehicles, and fuel availability. Each of the 20 districts picked up their equipment and material in the capital city of Harare. However, most districts have only one functioning vehicle available and it was often being used to support cholera activities. Because of the lack of transport, the emergency IRS program experienced a delayed start in several places.

A shortage of human resources and breakdowns in the communication systems contributed to the challenges with data collection and reporting. Districts had a difficult time adhering to the weekly reporting schedule, consistently completing the reports, and maintaining a uniform reporting format. Some districts modified their original targets part of the way through the IRS implementation; this caused confusion as to which targets and data would be considered accurate. For most projects, coordination and communications are key components for success; but, during a disaster or emergency situation, they are essential. In Zimbabwe, two simultaneous emergency efforts were taking place: the response to the cholera outbreak and the response to the looming malaria epidemic. Both emergency efforts

were impacted by Zimbabwe's challenging environment: the rains and poor road conditions, a shortage of local health workers and adequate vehicles, and supplies that the central level had to manage. Still, both efforts recognize the need for better logistics and surveillance coordination in the future.

In spite of these challenges, the emergency IRS was successful. Overall, districts achieved 84 percent room coverage, with 12 of 20 districts achieving the 85 percent targeted room population. Approximately 930,000 people were covered by the emergency IRS—which is equal to protection for 74 percent of the targeted population in the 20 districts. The NMCP estimates that a greatly increased number of deaths, possibly into the thousands, will be averted thanks to the quick action of the project and other partners in providing emergency IRS; they are eager to prepare for Zimbabwe’s next IRS season.

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