



Partnerships in Action

An Integrated Approach to Combining a Measles Campaign with a Bed Net, Vitamin A and Mebendazole Campaign in Zambia

July 2004



International
Services

Malaria Case Study

Partnerships in Action:
An Integrated Approach to
Combining a Measles
Campaign with a Bed Net,
Vitamin A and Mebendazole
Campaign in Zambia

July 2004



The **American Red Cross** works with a global network of 181 national Red Cross and Red Crescent societies to serve more than 45 million people every year. International programs focus on improving the health status of vulnerable populations by increasing their access to life-enhancing and life-saving services. This is done by leveraging and strengthening the power and resources of the Red Cross global network to mobilize communities for massive scale-up and delivery of “last mile” services, building and reinforcing indigenous capacities, and brokering partnerships to maximize resources and impact.

Founded in 1966, the **Zambia Red Cross** has developed a highly responsive, cost-effective, and community-based service delivery network to address the country’s poor and vulnerable. Through its more than 15,700 volunteers and 57 branch offices, the Zambia Red Cross mobilizes communities through grassroots efforts in health-related programs, including immunization campaigns, HIV/AIDS, water and sanitation, cholera mitigation, first aid, and disaster preparedness and response efforts.

The Child Survival Collaborations and Resources Group (**The CORE Group**) is a membership association of more than 35 U.S. nongovernmental organizations (NGOs) working together to promote and improve primary health care programs for women and children and the communities in which they live. The CORE Group’s mission is to strengthen local capacity on a global scale to measurably improve the health and well being of children and women in developing countries through collaborative NGO action and learning. Collectively, its member organizations work in over 140 countries, supporting health and development programs. The **American Red Cross** is a member of The CORE Group.

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Cover photo caption: A Zambian child carries insecticide-treated bed nets home. Through an American Red Cross combined campaign, she has been vaccinated against measles as well as given a vitamin A supplement and de-worming medication.

Cover photo and all inside photos by Marko Kokic/Canadian Red Cross, courtesy IFRC.

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Acronyms

| | |
|----------|--|
| AED | Academy for Educational Development |
| ARC | American Red Cross |
| CDC | U.S. Centers for Disease Control and Prevention |
| ICC | Interagency Coordinating Committee |
| IFRC | International Federation of Red Cross and Red Crescent Societies |
| ITN | insecticide-treated bed net |
| MoH | Ministry of Health |
| NGO | nongovernmental organization |
| PDA | personal digital assistant |
| PSI | Population Services International |
| SFH | Society for Family Health |
| UNICEF | United Nations Children’s Fund |
| WHO | World Health Organization |
| WHO-AFRO | World Health Organization Africa Regional Office |
| ZRCS | Zambia Red Cross Society |

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Introduction

This case study describes how the American Red Cross (ARC) integrated a 2003 campaign to distribute free, insecticide-treated bed nets (ITNs) and provide vitamin A and mebendazole with a cross-agency¹ Measles Partnership campaign in Zambia. The campaign was developed following a successful 2002 measles/bed net distribution pilot study in Ghana and was conceived in part to assist Zambia in reaching the Roll Back Malaria Partnership goal of halving malaria mortality in African countries by 2010.

The experiences and challenges documented by both the Ghana and Zambia campaigns demonstrate that increasing support for community-level interventions is critical to ensuring the success of large and complex child survival programs in Africa.

While measles vaccination campaigns have rapidly achieved high coverage at low cost and have resulted in a 35-percent reduction in measles mortality in Africa over the past three years,² no similarly effective approach for mass ITN distribution is currently in place. In one district in Ghana, the ARC pilot study demonstrated that linking ITN promotion and free distribution to a measles vaccination campaign results in rapid, high, and equitable coverage at low cost. Once the Ghana project proved successful, ARC launched a larger scale campaign in Zambia.

In both the Ghana and Zambia campaigns, the ARC approaches included volunteer social mobilization and community education and intense evaluation. In addition, Red Cross National Societies in both countries worked with partners to develop appropriate community messages and to strengthen social mobilization activities.

This case study provides background on how the campaign was implemented in one underserved district in Ghana, followed by a close review of the expanded and integrated campaign in five districts in Zambia, which were underserved and showed low usage of and access to ITNs.

Key results of the Zambian campaign included:

- Household ITN coverage increased from 28.9 percent (pre-campaign) to 85 percent (with a greater than 80 percent coverage across all wealth quintiles), thereby eliminating pre-campaign inequities related to poverty.

1. The Measles Partnership is composed of the American Red Cross, the Centers for Disease Control and Prevention (CDC), the UN Foundation, WHO, and UNICEF, in collaboration with the International Federation of the Red Cross and Red Crescent Societies (<http://www.measlesinitiative.org/>).

2. WHO Press Release, April 27, 2004.

- At six months post-campaign, 97.1 percent of the ITNs were observed in the households (85%) that received them and 60 percent of the pregnant women and children under 5 years old were reported to have slept under the net the previous night.
- The percentage change in household net ownership increased by 343 percent in the poorest quintile, and by 48 percent in the least poor quintile.

Measles and Malaria: Leading Childhood Killers

Measles is one of the five major causes of childhood illness and is a leading cause of childhood mortality in Zambia. Outbreaks of measles continue to occur seasonally and sporadically in both rural and urban districts of the country. An estimated 30–40 million children suffer from measles every year, with more than half of annual measles deaths (about 450,000) occurring in Africa.

In Africa, *malaria* is the number-one killer of children: a child dies of malaria every 30 seconds. Malaria accounts for more than 40 percent of all hospital deaths in Zambia. World Health Organization (WHO) data indicate that children under five years of age and pregnant women are at greatest risk of malaria morbidity and mortality and should be targeted in malaria control programs.

Background

Ghana Pilot Study

During the December 2002 Ghana mass measles campaign, the Ghana Red Cross and its partners—the Ghana Ministry of Health (MoH), ARC, Rotarians Against Malaria, Centers for Disease Control and Prevention (CDC), United Nations Children’s Fund (UNICEF), ExxonMobil, Satelife, Inc., BASF Corporation, and the World Bank—selected the remote northern district of Lawra as the pilot site for an integrated ITN distribution effort. More than 14,600 free ITNs were distributed in seven days.

External partners provided funding for the procurement of vaccines and bed nets, and for evaluation activities. The MoH, with assistance from the Ghana Red Cross and other in-country partners, distributed ITNs via the logistics and distribution systems established by the Ghana Expanded Programme on Immunization.

Prior to the campaign, only 4.4 percent of Lawra households used ITNs. During the campaign, health workers and Red Cross volunteers distributed ITNs to caregivers who brought children in to be vaccinated at campaign sites. Post-campaign data from Lawra District showed 80 percent of children were sleeping under ITNs.

Ghana District Data and Campaign Results, December 2002

Lawra District, Ghana

- Population 145,000 (children <5 years: 29,000)
- Severe poverty = 69%
- Literacy = 10%
- No existing ITN distribution systems
- Pre-campaign ITN coverage = 4.4% (UNICEF, 2000)

Integrated Campaign Results:

- 14,600 ITNs distributed, achieving >80% coverage of households
- 1,500 Ghana Red Cross volunteers recruited for social mobilization
- Cost per net: US\$3.42
- Logistics distribution per net = US\$0.32
- Total cost = US\$3.74 *

* Data from other African countries indicate costs of US\$4.50–US\$12.50

The survey confirmed that equity was achieved among the poorest and wealthiest households, with an equally high post-distribution ITN ownership level in both groups.³

The cost of ITN distribution was low—US\$0.32 per net (for logistics only, does not include price of net)—because the Ghana Red Cross was able to use the measles campaign infrastructure as a platform for distribution.⁴ House-to-house visits by Red Cross volunteers before and after the integrated campaign were considered critical to achieving high rates of ITN household coverage and usage.

Monitoring and Evaluation/Ghana

During the campaign (and 5 months post-campaign), Ghana Red Cross volunteers carried out data collection by using handheld computers, otherwise known as personal digital assistants (PDAs), supplied by Satellife, Inc. Following approval of survey questions by Lawra District authorities, the Red Cross completed programming prior to shipping the PDAs to the field. A data analysis specialist oversaw training and data collection analysis. Stored assessment data were transferred from the PDAs to a database housed on a laptop computer using the synchronizing software and cradle that were supplied with the hand-held units. Transferring the data into the database required approximately 30 seconds; no errors were encountered during the process. A record was considered valid if it contained a response to at least 56 of the 58 questions. Analysis was completed using EpiInfo software. Data was analyzed in EpiInfo 6.0,⁵ and proportions were compared using chi-square tests.

The integrated effort in northern Ghana verified that measles vaccination and free ITN distribution could be delivered simultaneously to achieve high coverage and equity at low cost. Ghana offered a successful model for the Zambian Red Cross Society (ZRCS) to replicate. Working with the World Health Organization Africa Regional Office (WHO-AFRO), the Measles Partnership proposed a scaled-up ITN distribution to coincide with Zambia's June 2003 measles vaccination campaign.

3. The determination of socio-economic status was based on household assets (e.g., radio, water source). Each asset was weighted according to the World Bank analysis of Demographic Health Survey Data.

4. Based on these results, the Zambia campaign planned to increase the number of districts to assess the feasibility of a large-scale intervention.

5. EpiInfo: Centers for Disease Control and Prevention (CDC); <http://www.cdc.gov/epiinfo/about.htm>

Into Zambia: Scaling Up the Model

Following Ghana's successful pilot campaign, the International Federation of the Red Cross and Red Crescent Societies (IFRC) and its partners focused on scaling up efforts to reduce childhood morbidity and mortality from measles and malaria across five districts in Zambia.

Approximately 5.2 million children between the ages of nine months and 14 years, in districts that did not participate in the previous year's mass measles campaign, were targeted for Zambia's 2003 measles vaccination effort.

In preparation for the joint measles-ITN distribution campaign, the IFRC procured 90,000 ITNs for free distribution in five districts. Other partners contributed vitamin A and mebendazole, which were also integrated into the campaign.

The Zambia MoH and the ZRCS identified five ITN target districts through a collaborative planning process that considered:

- Underserved and difficult to reach areas;
- Areas with low ITN coverage levels; and
- Areas where the ZRCS could have an impact.

The ZRCS implemented the campaign's ITN component and took the lead in Kaputa district. UNICEF was responsible for three districts (Chilubi Islands,



In a remote area of northeastern Zambia, Red Cross volunteer Anton Chilufya takes village children to Pintu Immunization post where they will be vaccinated against measles.

Mambwe, and Myimba). NetMark (an Academy for Educational Development program) supported the fifth district (Kalulushi), through a voucher redemption arrangement. The distribution approach in the Red Cross and UNICEF districts was similar to that of Ghana’s pilot, where ITNs were distributed to caregivers who brought children in for measles vaccination. The NetMark distribution model used vouchers, which were given to caregivers at vaccination sites. These vouchers were later redeemed at nearby ITN distribution centers. The vouchers provided a 100-percent subsidy for the nets.

Resources and Pre-Campaign Planning

The Canadian Red Cross, with financial support from the Canadian International Development Agency, provided 90,000 ITNs for distribution in the five selected measles campaign districts. The Canadian Red Cross allocated funding to the IFRC for procurement of ITNs and for supporting operations. The IFRC disbursed funds to: 1) the Red Cross Regional Delegation in Harare, Zimbabwe, for technical assistance, 2) to Population Services International (PSI) for monitoring and evaluation,⁶ 3) to the ZRCS and UNICEF to support logistics and social mobilization, and 4) to NetMark for support in the voucher district.

Across Zambia, the MoH, through the Interagency Coordinating Committee (ICC), provided the framework for pre-campaign planning among all partners.⁷ ICC campaign planning for the measles vaccination component began in January 2003. The ZRCS participated actively on the ICC throughout campaign planning exercises and began working with the national malaria working group once the decision to add ITNs was made in April 2003. The ZRCS assumed responsibility for social mobilization in eight

Zambia Campaign: Funding and Procurement Paths

Primary Funding Sources

Primary funder:
Canadian Government (CIDA), through the Canadian Red Cross

Primary fund recipient:
IFRC/Geneva, Switzerland

- Secondary fund recipients:
- IFRC Regional Delegation/Zimbabwe
 - Zambia Red Cross
 - American Red Cross Suppliers

- UNICEF/New York for UNICEF/Zambia: measles and malaria operations
- Vestergaard-Fransden: ITNs
- Sanavita: Mebendazole
- AED/Washington: local net procurement from NetMark, Zambia
- PSI/Washington: survey support and services from Society for Family Health , Zambia

6. An integrated approach to morbidity and mortality reduction in Zambia; A discussion paper on lessons for future NGO Partnering, December 2003.

7. Partners in the Zambia campaign included: ZRCS; Canadian Red Cross; IFRC-Geneva; IFRC Regional Delegation-Harare; IFRC Country Delegation-Zambia; American Red Cross; MoH malaria control and immunization programs (national and district); WHO-HQ; WHO-AFRO; WHO-Zambia; UNICEF-HQ; UNICEF-Zambia; U.S. Centers for Disease Control and Prevention; Academy for Educational Development; Population Services International; NetMark; Society for Family Health; Right to Play; and others.

measles campaign districts where more than 1.2 million children were registered prior to the campaign. In one of these districts (Kaputa) the ZRCS also took the lead for ITN social mobilization and distribution. Developing a targeted, inclusive communications strategy for social mobilization was an important campaign objective but posed challenges. Different districts required different strategies and messages in local dialects. Messages about the delivery of multiple health interventions in varied combinations required careful training of volunteers.

Key social mobilization messages

- Children under 5 years of age need a measles vaccination.
- Children under 5 years of age need to go to a vaccination session.
- Children under 5 years of age and pregnant women are at high risk of getting malaria.
- One way to prevent malaria is to sleep under an insecticide-treated bed net every night.
- A free bed net will be given to each mother of a child under 5 years of age who is brought to the vaccination site.
- Children who come to the vaccination session will also receive vitamin A supplementation and deworming medicine to make the child stronger.

At the global level, conference calls among donors (MoH, ZRCS, IFRC, ARC, CDC, WHO, and UNICEF) were an important planning tool and ensured the sharing of critical information. These calls focused largely on funding, procurement, and technical assistance. Participants regularly updated one another on schedules and resource details, and tasks were distributed evenly among the group. UNICEF obtained measles vaccine and supplies, the IFRC procured ITNs, the ARC and CDC supported the evaluation components, and the ZRCS worked with in-country partners on social mobilization. The MoH provided overall coordination and monitored partner activities to ensure timelines and delivery dates were met.

Because an integrated public health intervention of this magnitude had not been attempted previously in Zambia, the campaign offered a number of challenges. While the measles campaign had been in the planning stages since January 2003, the option to add free bed net distribution was a late “add-on,” made possible when donor funds became available less than eight weeks before the start of the measles campaign. This 8-week window necessitated an unusual level of expedited coordination and consensus-building among all partners.

Implementation

Overcoming Challenges

Because bed net distribution was a late addition to the Zambia campaign, partner flexibility and ability to meet deadlines were critical to timely implementation. Due to a relatively long planning period, the campaign's three additional components were in place. As time passed from April to May 2003, however, the ITN delivery seemed to be within days of missing its target. Major barriers to bed net distribution included:

- Difficulty transferring funds to the field;
- Insufficient time to plan with partners;
- Transportation difficulties between ports to distribution sites;
- Breakdown of vehicles during in-country transport; and
- Fluctuating currency rates affecting billings (i.e., the Zambia Kwacha's appreciation against the U.S. dollar).

One major obstacle emerged when an ITN shipping container went missing in late May. Campaign partners quickly developed a contingency plan whereby a PSI-funded Zambian nongovernmental organization (NGO), the Society for Family Health (SFH), offered to loan its supply of ITNs to the campaign if the container was not discovered in time. Fortunately, the shipping container reappeared, and the bed nets were delivered to Lusaka, the capital city, by the June 3rd deadline.

Net distribution by UNICEF to the districts of Myimba, Chilubi Islands, and Mambwe went as planned, but the northern districts of Kaputa and Kalulushi presented logistical challenges due to bad roads and remote distribution sites. To solve the problem, campaign workers approached the Zambian military, who agreed to deliver the ITNs to the north. After driving in difficult road conditions and arriving only hours before the vaccination sessions, the military reached their destination with the needed nets.

Flexibility and resilience among campaign partners also resolved a shortfall in the supply of mebendazole. With the understanding that a future Red Cross shipment would replenish the UNICEF stock after the campaign, UNICEF advanced its in-country supply to the Red Cross. This enabled critical campaign activities to move forward, while other supply sources were identified.

Success depended on agreement on strategy, inclusive and transparent management, strong in-country partners, close coordination with the underlying measles campaign, free distribution and extensive assessment.

— Mark Grabowsky,
MD, MPH, Senior
Health Advisor to the
American Red Cross



A Zambian Red Cross volunteer distributes insecticide-treated bed nets to a village mother.

Key Campaign Activities

The campaign's four key activities were focused on measles vaccination, Vitamin A and mebendazole provision, and ITN distribution. Specific objectives included the following:

1. Vaccinate all children 9 months to 15 years against measles.
2. Provide an age-appropriate dose of vitamin A supplement to all children under the age of 5 years.
3. Provide an age-appropriate dose of mebendazole to all children 1–5 years of age.
4. Distribute one free ITN to every family in the target districts with one or more children less than 5 years of age, and provide for one free re-treatment cycle at 6 months.

Objective 1: Measles Vaccination

The Zambian Ministry of Health facilitated the national measles campaign in addition to meetings of all ICC partners. These meetings were followed with multiple face-to-face discussions among ICC subgroups for logistics, social mobilization, communication, and operations.

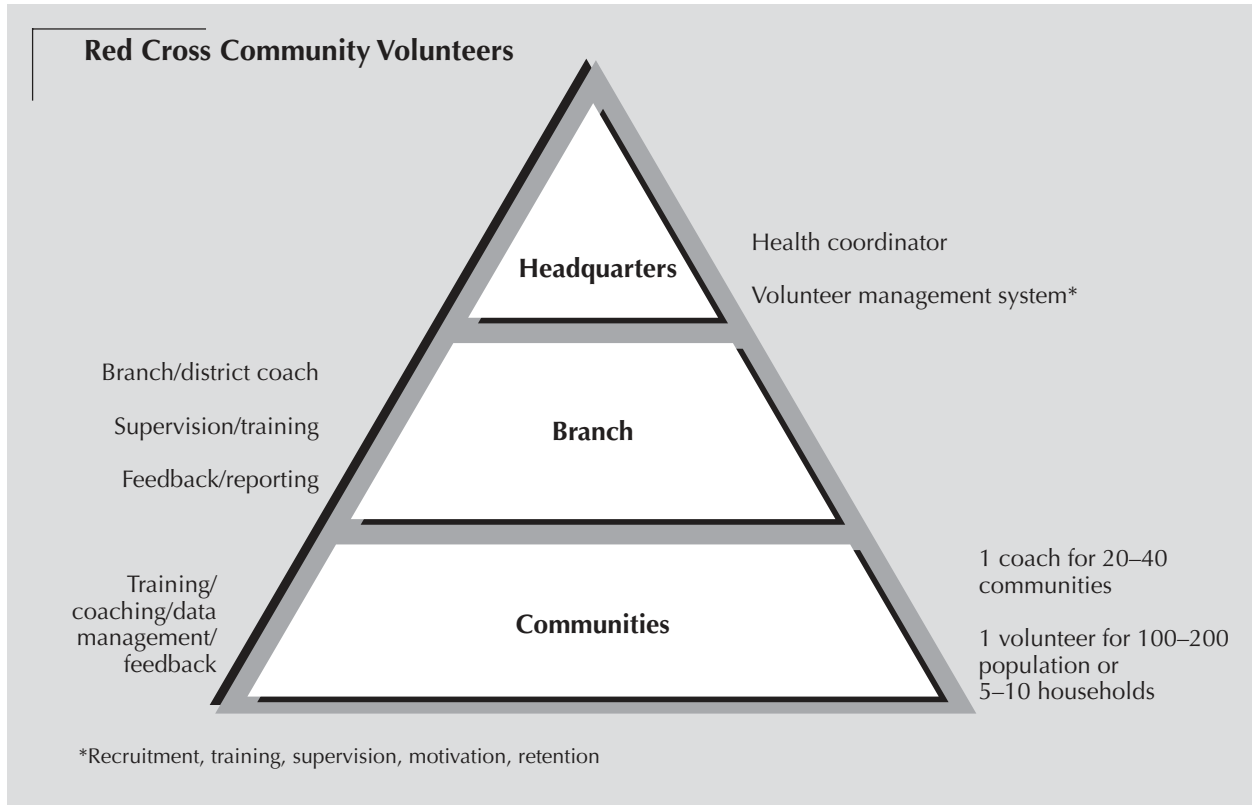
ZRCS community volunteers worked hard to create awareness in the villages and identify households with children. The volunteers were based in their own communities, received orientation on campaign components, and worked with local government health workers to provide social mobilization at vaccination sites. ZRCS volunteers were not compensated. Training, coaching support, and recognition, however, were important motivational factors throughout the campaign.

Red Cross volunteers in most districts used drama and songs for social mobilization, which drew a lot of interest among women and children. Village leaders, schools, religious groups, and area authorities were involved in the planning and implementation of social mobilization strategies at the district and community levels. Some volunteers went further and visited vulnerable children (i.e., orphans, children with ill parents) on the day of the measles campaign. In some cases, volunteers accompanied children to the vaccination site.

During the campaign, four ZRCS volunteers were assigned to each of the 412 vaccination posts and provided logistical support in specific areas (such as crowd control and registration). For supervision, 116 ZRCS "coaches" were identified and eight district residents were selected to monitor district

wide volunteer activities. Eight motorcycles, 116 bicycles, 1,800 Red Cross volunteers and 72 megaphones were used for social mobilization before and during the campaign. All volunteers were drawn from the ZRCS networks, which are otherwise engaged in community health activities or on standby for disaster response.

One important NGO contribution involved community social mobilization through sports. The NGO “Right to Play” sponsored campaign-related sporting events and meetings that drew up to 20,000 enthusiastic young people. Measles vaccinations given at some of these events helped contribute to increased coverage.



Objective 2: Vitamin A Supplementation

During pre-campaign social mobilization, ZRCS volunteers and government health workers provided messages about the benefits of vitamin A supplementation through house-to-house visits. Red Cross volunteers also assisted (where needed) in administering the oral supplement, which was provided at all measles vaccination sites.

Objective 3: Mebendazole Administration

As in the other activities, Red Cross volunteers assisted with pre-campaign social mobilization efforts to explain the value of mebendazole. They also assisted in the administration of the de-worming medication at the vaccination posts. During a micro-planning meeting, a shortage in the mebendazole supply was discovered. Again, the partnership proved useful. In an agreement between the IFRC and UNICEF, 2 million doses of mebendazole were advanced for the campaign. The IFRC replaced this stock for use in a subsequent operation.

Objective 4: ITN Distribution

Based on MoH joint planning among all stakeholders, and a request to procure ITNs, partners identified five target districts. One district (Kalulushi) promoted a “voucher” reclaim system, while the others (3 UNICEF and 1 Red Cross) focused on direct, free distribution.

The IFRC’s Geneva Secretariat undertook an accelerated bid process to procure 75,000 ITNs for the campaign. The Secretariat coordinated logistics from the manufacturer to in-country distribution sites, where health and Red Cross personnel dispersed the ITNs to targeted families. The IFRC also provided funds to purchase 15,000 bed nets in-country from NetMark/AED. These bed nets were not insecticide-treated and required special dipping, using the insecticide kits that were included with the nets. The nets were then distributed in the Kalulushi district using the voucher redemption system.

Post-Campaign Activities

Following the campaign, stakeholders began planning a “Child Health Week,” which resulted in the re-treatment of bed nets in December 2003, 6 months following the integrated campaign. Thus, re-treatment was scheduled for these nets along with the NetMark bed nets that were distributed in Kalulushi. Re-impregnation kits were procured, made available to the MoH, and subsequently distributed to the target districts for the December free re-treatment efforts (in which Red Cross volunteers actively participated).

Post-campaign activities included strengthening the capacity of the ZRCS, especially in the areas of program implementation and volunteer recruitment for future health campaigns and potential national disasters. Partners also planned for and conducted post-campaign assessments, which took place in December 2003.

The integration of malaria into mass measles campaigns has been tested and shown to be not only feasible but also one of the most cost-effective public health interventions for reducing child mortality and morbidity. Using the platform of measles immunization activities, an ITN can be delivered to a child for an operational cost of less than \$0.50. In addition, we can capitalize on the mobilization of the population to achieve a broader health impact, reaching poorer and more isolated communities not reached by conventional distributions.

— Nick Farrell,
head of the IFRC Africa Health Initiative

Monitoring and Evaluation

During the six-day campaign, observers from NGOs and other agencies monitored various components of the campaign. Observers included representatives from:

- Canadian Red Cross
- ARC
- IFRC (Geneva, Switzerland and Harare, Zimbabwe)
- WHO
- UNICEF
- CDC
- The United Nations Foundation
- BASF Corporation
- Right to Play, and
- Other in-country partners

The monitors tracked implementation activities, identified areas needing mid-campaign correction, reported major findings to district health management teams or the MoH, and provided support to the many health workers and volunteers.

The IFRC's Health and Care Department and the Regional Health delegate provided technical assistance to ZRCS to fully develop and implement a plan of action that supported the national effort.



A community health worker enters measles/ITN campaign data into a personal digital assistant.

For the purpose of evaluation, campaign participants answered the following questions:

- What was the pre- and post-campaign coverage for measles vaccine, vitamin A, mebendazole and ITNs?
- Was there an impact (positive or negative) on measles vaccination coverage by other interventions?
- Were the Abuja targets (60% of pregnant African women and young children are protected by ITNs by 2005) met?
- Was the ITN distribution equitable or did it differ among socioeconomic groups?⁸

The methodology for this evaluation, much like that used in Ghana, employed PDAs that were pre-programmed at ARC. The Zambia MoH, CDC, NetMark, and ARC developed the questionnaire with input from other interested parties. SFH was contracted “in country” to coordinate the recruitment and training of the surveyors who completed the surveys. To avoid bias, Red Cross workers were not part of this evaluation. The use of this technology facilitated rapid, high-quality data collection and allowed for immediate and error-free transfer of data to laptop computers.

8. ARC used World Bank data and methods for assessing socioeconomic status by quintile.

Campaign Results

The Red Cross presented preliminary results⁹—including equity and coverage data—to the MoH on August 7, 2003, less than 45 days from completion of the campaign and less than three weeks from the survey. A follow-up cluster sample (500 households per district) using a similar methodology was carried out six months later during the second week of December 2003.

| Zambian Ministry of Health Coverage Surveys | | | |
|---|-----------------|----------------|-----------------|
| <i>Intervention</i> | <i>Targeted</i> | <i>Reached</i> | <i>Coverage</i> |
| <i>Measles Vaccine</i> | 4,600,916 | 4,955,647 | 107.7%* |
| <i>Vitamin A</i> | 1,713,923 | 1,864,818 | 109% |
| <i>Mebendazole</i> | 1,421,056 | 1,537,583 | 108% |
| <i>ITNs</i> | 65,745 | 77,579 | 118% |

**Administrative coverage of more than 100 percent reported by the MoH can be attributed to: 1) population movements, especially mothers from neighboring areas coming in for vaccination and ITNs, 2) underestimates of target populations during pre-planning and house visits, and 3) vaccinating and providing vitamin A and mebendazole to children outside of the target age groups.*

Key Achievements

- Household ITN coverage increased from 28.9 percent (pre-campaign) to 85 percent (with a greater than 80 percent coverage across all wealth quintiles), thereby eliminating pre-campaign inequities related to poverty.
- At six months post campaign, 97.1 percent of the ITNs were observed in the households (85%) that received them and 60 percent of the pregnant women and children under 5 years old were reported to have slept under the net the previous night.
- The percentage change in household net ownership increased by 343 percent in the poorest quintile, and by 48 percent in the least poor quintile.
- Children who received an ITN were 16 percent more likely to receive a measles vaccine.
- The logistical cost for delivering an ITN in the direct distribution districts was US \$0.36 per ITN, versus US \$3.90 for the voucher district. (Based on using logistics and resources already mobilized for the measles campaign.)

9. Unpublished data, Mark Grabowsky, MD, MPH, Senior Health Advisor, American Red Cross.

NGO Lessons Learned

Planning:

- Early planning, good communication at all levels, pooling of resources, working in partnership, and an intense focus on assessment are major components for successful integrated campaigns.
- Red Cross National Societies and other NGO capacities should be assessed as part of the planning process. Tasks can be divided according to each group's strengths.
- Red Cross National Societies and NGO participation in the ICC enhanced information sharing and resulted in a plan of action that was well understood by all.
- A short time frame to implement the ITN integration limited broad-based collaboration. Future campaigns should look for greater inclusiveness, especially from in-country NGOs in the planning, implementing, and evaluating processes.

Partnering:

- With understanding and trust, funds from other partners can be used to fill interim gaps and help to avoid unnecessary delays.
- In-country NGOs, community-based organizations, and other groups possess valuable resources including logistics, personnel, commodities, funds, and delivery systems that can substantially support large public health efforts.

Monitoring and Evaluation:

- Red Cross National Societies and other in-country NGOs can play a valuable role in post-campaign follow-up activities and evaluations (such as SFH for surveys).

Social Mobilization:

- Some partners, such as "Right to Play," are present in both urban and rural areas and can be used to complement and strengthen social mobilization activities.
- There is a greater chance of success if local community leaders and groups participate in the social mobilization efforts for their districts.
- Visiting households prior to the campaign was useful and enabled volunteers to register children and follow up on those same children when they did not show up at the vaccination site.
- Red Cross and NGOs can play an important role in accompanying orphans and other vulnerable children to vaccination sites.

Campaign Summary

In 2002, Ghana became the first African country to pilot a program demonstrating the safety and feasibility of integrating free ITN distribution with a mass measles vaccination campaign. Building on Ghana's success in achieving high coverage in a cost-effective way, the ARC and its partners implemented a larger scale effort in Zambia in 2003. This effort became the first Zambian public health campaign to cover four important interventions simultaneously: vitamin A, mebendazole, measles vaccination, and ITN distribution, in five high-priority districts.

In carrying out the integrated measles/ITN campaign, the ARC made a significant contribution to Zambian national efforts to reduce the burden of childhood preventable diseases. The campaign also serves a model for public health partnership. The ZRCS played a lead role in social mobilization and community education, while other partners worked in close collaboration with the MoH. The IFRC provided some 90,000 ITNs for the campaign; ZRCS volunteers distributed 23,000 of these nets in Kaputa, NetMark distributed 15,000 nets in Kalulushi district, and the MoH and UNICEF distributed all remaining nets.

Red Cross volunteers worked closely with national and local health personnel to ensure consistency among social mobilization messages and to reach remote areas. Volunteers sensitized mothers and caregivers, registered all eligible children in households, distributed ITNs, and followed up with those children who did not appear for their measles vaccination. A total of 1,800 Red Cross volunteers supported campaign activities before, during, and after the campaign.

As a result of this campaign, Zambia proved that a large-scale, integrated effort to achieve high coverage for measles and ITN distribution can be successful while keeping costs low. PDAs, accompanied by appropriate training, proved to be an effective tool for rapid and high-quality field data collection. Lessons learned in Zambia will now be taken to Togo, where a nationwide integrated measles vaccination and ITN distribution campaign is planned for December 2004.

When NGOs such as the ARC and the IFRC use disaster response models to address silent, everyday African emergencies, they can influence and improve overall goals for equitable health. The system will work if:

- Communities are informed about and participate in meeting local health needs;
- Volunteers agree to participate in ongoing community health activities;
- Local partners (e.g., health centers, church groups, women's associations) are available to work with volunteers in their own communities; and
- Supervisors, coordinators, and coaches are available and willing to be active participants on the team.



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