The Global Elimination of Lymphatic Filariasis

The Story of Zanzibar
ACKNOWLEDGEMENTS

The lymphatic filariasis (LF) elimination programme in Zanzibar is the story of the hard work and commitment, primarily of the people of Zanzibar. This document is an attempt to portray the dedication of the many people who were convinced of the importance of the LF programme and made the campaign a success. WHO is indebted to those who are mentioned within the pages of this publication, and also those not mentioned who nevertheless saw a vital role for themselves in making a difference to the health of their communities.

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Letter from the WHO LF Support Team (HQ)

Zanzibar was a challenge. Almost everyone in Zanzibar, nearly a million people, needed to be convinced that they had to swallow free but potent drugs. And they all had to do it on the same day, Saturday, 27 October 2001. It would be one of the largest mass drug administrations ever attempted. And if it worked, then 27 October would be the beginning of the end for the stigmatizing and incurable parasitic disease known as lymphatic filariasis (LF), the world’s second leading cause of disability. And with the elimination of LF, elephantiasis, the disfiguring disease caused by the filariasis parasite, would vanish over time as well.

No longer would people be anchored in life by giant legs or other horrors of the disease.

If the majority of the population did take the drugs once a year for at least five years, then transmission would essentially be stopped. The risk was that if the target was not reached, the exercise would largely be a waste of time, effort and money.

The challenges in Zanzibar were enormous and, quite frankly, more than we expected. The prevalence of LF parasite in the country is one of the world’s highest. Around 15% of people carry the parasite. In some villages, infection rates were well over 30%. The social environment also presented special challenges to a drug distribution programme. Prior to October, research revealed the presence of widespread misconceptions about LF — that the disease was caused by witchcraft or eating green coconuts. Once the campaign was launched, rumours began circulating that the free tablets were a form of birth control or had unknown side-effects. If this wasn’t enough, logistical and financial problems arose that threatened to sink the entire effort. In fact, the drugs themselves arrived in Zanzibar too close to 27 October, "F-Day".

What follows is the story of the LF campaign in Zanzibar. It is one of the most unusual health campaigns ever.

In Zanzibar, we were reminded again that WHO is a technical agency. We supply, primarily, expert advice. But no matter how good our advice is, if a health campaign is to be successful it is because thousands of ordinary people
work very hard to improve the health of their neighbours. It is also because a few people, like senior political and religious leaders, commit themselves in a public way to personally improving the nation’s health. These personal commitments were abundant in Zanzibar. So, although the programme did not go entirely the way it was planned, the success was more than was hoped for.

Given all the frantic activity and eventual success in Zanzibar, we should not lose sight of how special this moment is. After 4000 years of physical and psychological suffering inflicted by LF, we now have the tools to eliminate this disease. If nations seize this opportunity with vigour and commitment, in the way that Zanzibar did, we not only can put an end to this terrible affliction, but also can break the chains that have bound millions of people to poverty. Zanzibar shouts at us that this can be done. But it can be done only if we work hard, work in partnership and, now with the example of Zanzibar, work with the certainty that we all can make a difference.
More than 120 million people are infected with the lymphatic filariasis parasite. The lives of 40 million people are limited and disfigured by the disease. For them, there is no cure. The remaining 80 million infected people risk the same fate. These people have impaired immune systems and are at risk of developing the gross deformities.

Lymphatic filariasis does not kill, but in most countries of the world it inflicts an enormous physical and psychological destruction. LF hits hardest among the poorest people and, because its victims are rendered unable to work, they are shackled in even more desperate poverty.

A thread-like worm causes the disease that is spread by mosquitoes. LF parasites are found in more than 80 countries around the world, which means that 1000 million people are at risk.

Efforts to eliminate the disease began with an understanding of the parasite itself. Once injected by the mosquito into a human victim, the adult worm lives for several years, producing millions of immature worms called microfilariae. The worms can lodge in the lymphatic system, a network of nodes and vessels that delicately regulate the fluid balance between the tissues and blood. Damage to the lymph system causes the swelling of reproductive organs and lower limbs which are characteristic of hydrocoele and elephantiasis.

As this process of destruction continues, the mature worms produce offspring. It is these immature parasites (microfilariae), which circulate freely in the blood, that are picked up by a mosquito and passed to the next person. The efficiency of transmission is quite low in LF. One bite from a malaria-carrying mosquito can trigger the disease, but it takes several hundreds of bites to infect someone with LF. Once the infection is established, the cycle continues endlessly, from person to person, forever.
No drug exists to cleanse the body of all the adult worms, but some veterinary drugs were known to block the reproduction of the parasite. Scientists established that the co-administration of these drugs was safe and effective in humans. In fact, a single dose of the drugs blocked the production of microfilariae for a year.

These findings sparked enormous interest because they suggested a public health strategy that could eliminate LF. In theory, if the drugs could block the creation of the young microfilariae in an infected person, they would not be available to be sucked up by mosquitoes. This would stop transmission. And if the microfilariae were blocked year after year, until the mature parasite lived its full five years of reproductive lifespan, the risk of LF would evaporate.

The theory was so sound that in 1997, WHO committed itself to eliminating LF.

The Chinese validated the concept when they mixed one of the drugs, diethylcarbamazine (DEC), with ordinary table salt and distributed it to the population. Over a period of time, LF disappeared. China, however, was a unique situation. Elsewhere, public health workers do not have such direct influence over a population. Another approach was required, and subsequently WHO developed the mass drug administration (MDA) strategy.

MDA is built around dosing entire populations at risk with LF drugs once a year for five years. To be successful, it requires that a substantial proportion of a population participate for at least five years.

This saturation level would need to be maintained year after year for the level would need to be maintained for the entire reproductive lifespan of the worm. But when the last adult worm died in the last infected person, the mass drug administration could be stopped, and LF would be eliminated.

The challenge is in implementing such a large-scale intervention. It is not known whether such a large percentage of a population – both those infected and not – could be convinced to commit themselves to take drugs, with potential minor side-effects, for so many years.
Living with LF

Jaku Hassan Ali is a fishmonger and estimates he is about 65 years old although he is not certain. He has had elephantiasis since he was a child and believes he acquired the disease while playing in muddy water.

Today, his left leg is enormous. His toes, which stick out from the folds of his leg, are the only visible sign of feet. His pants are cut off above the knee and ripped through the crotch to accommodate the leg. A doctor recently advised him to have his leg amputated, but he declined because he needs it to ride his bicycle.

Does he feel depressed?

- "No," he says. "This is God's plan. It is from God, so I will endure it."

Jaku is one of the lucky ones, he has managed to support a wife, raised a family and now has grandchildren.

For many others, LF has a devastating psychological, economic and social impact. According to Kassim Ali, a community health nurse: "They have shame to walk among the people. Working is reduced. Wounds make offensive smell. People tend to isolate themselves."
The theory of LF elimination was given a chance to prove itself in 1998 when the pharmaceutical firm GlaxoSmithKline (previously known as SmithKlineBeecham) offered to donate its product albendazole, which in association with DEC or ivermectin will prevent the production of new, young worms. The pharmaceutical company pledged, and reaffirmed its commitment in a Memorandum of Understanding with the World Health Organization, to provide albendazole for as long as it was needed. And it would be free. This would likely mean donating 4 to 6 billion tablets over 20 years. The London Financial Times called it "the biggest single act of corporate philanthropy in any industry."

Another pharmaceutical firm, Merck & Co. Inc., which was providing its drug ivermectin (Mectizan”) to help control river blindness, announced that it too would provide its drug in African countries where the two diseases exist side by side.

The agreement between WHO and GlaxoSmithKline attracted the support of dozens of governments, universities, UN organizations, international development agencies, NGOs and philanthropists. They decided to join forces to work towards eliminating LF. This public–private partnership is known as the Global Alliance to Eliminate Lymphatic Filariasis.

The Bill and Melinda Gates Foundation provided enough seed money to the Alliance to prove whether or not mass drug administration could work.

When nations are committed to eliminating LF by working with the Global Alliance, they establish new synergies. This partnership generally includes some members of the Global Alliance, primarily WHO and the drug companies, but it is always directed by the country concerned.

Zanzibar did this and WHO decided to use the Gates Foundation funds to run the programme. Thus, Zanzibar became a high-profile test of the strategy for LF elimination.
The government of Zanzibar is part of the United Republic of Tanzania. It lies 6° south of the equator, 35 km across the Indian Ocean from the mainland. Almost a million people live in Zanzibar; they are predominantly Muslim, with a rich Swahili culture. Once the world’s largest producer of cloves, the islands today attract tourists from all over the world. These visitors enjoy the white sandy beaches, an abundance of coconut palms, emerald green coves and a kaleidoscope of underwater life. Zanzibar is home to the rare Kirk’s Red Colobus monkey, which has its own protected crossing on the main north-south highway, and a wide variety of birds and butterflies.
Zanzibar profile

It was also the home of Freddie Mercury (born there on 5 September 1946), the lead singer of the band Queen.

The archipelago consists of the two main islands of Pemba and Zanzibar, and a collection of smaller, mostly uninhabited islands. Zanzibar Island (known locally as Unguja) is 60 miles long and 20 miles wide. The largest city on these 650 square miles is Zanzibar City with 100,000 inhabitants. Stone Town, famed for its grand Arab houses with richly hand-carved wooden doors, has been designated by the UNESCO as a "world cultural heritage site".

In public health terms, Zanzibar has an extensive infrastructure of health clinics throughout the islands, and health issues, including LF, have been debated in the country’s House of Representatives. The country has participated in a number of national health campaigns including immunization programmes and a programme to control schistosomiasis and soil-transmitted helminths. But the country is also familiar with broad, international health efforts that have failed, including one against malaria. Drug-resistant malaria is endemic in Zanzibar. Consequently, people in Zanzibar were already accustomed to large-scale health campaigns.

In a sense, Zanzibar is ideal for mass drug administration. It has rigid boundaries. The public health system is strong and previous campaigns have sensitized the population to large-scale public health efforts. But nothing that depended on the cooperation of so many people on a single day had ever been attempted in Zanzibar.
When people were first told about the free drug programme for LF, they often asked: "Why are you giving us drugs for this when malaria is killing us?"

Indeed LF does not kill suddenly, but it kills slowly, gradually reducing life expectancy. And while it has been shown elsewhere to inflict a drain on that nation’s economy amounting up to $1 billion annually, in Zanzibar only anecdotal reports link LF to erosion of personal income.

Still, ending LF will have important benefits to the country’s health system. The most obvious is that children will be saved from the disease. Also, funds now used by the Ministry of Health for LF will be freed for other pressing public health needs.

As the LF campaign in Zanzibar unfolded, it became clear that the implications of ending LF extend far beyond public health.

Political leaders in Zanzibar acknowledge that if LF is pushed out of the islands, faith will be revived in health initiatives based on collaboration with international agencies and commercial donors. Also, the LF campaign could help to instil a medically-based sense of why disease develops and how it can be cured.

What is the value of eliminating LF?
"It has a social value," says Dr H. Nyanga, the zonal medical officer for the Island of Pemba. "We would like to get rid of the idea that filariasis is a result of witchcraft. We would like to eradicate that idea. It is a belief that affects other diseases as well, such as cerebral malaria and strokes. If we eliminate this idea, we will have more hospital attendees. People will be coming to the hospital instead of going to witch doctors."

And if the Zanzibar government is able to put an end to LF, it could also help rebuild the people's faith in their government. "If it works, it will show the people that government takes care of their health," says Omar Mussa, Principal Secretary of Zanzibar's Ministry of Health and Social Welfare. "They will come to conclude that government is more caring of them."

Faith in government. Faith in international health campaigns. Faith in medicine. More funds for other diseases. Healthier children. And a more robust economy. All this and more is riding on the LF campaign in Zanzibar.

"If it works, it will show the people that government takes care of their health,"

Omar Mussa, Principal Secretary of Zanzibar's Ministry of Health and Social Welfare.
ever before had a health campaign ever attempted to motivate nearly a million people to participate, by personally swallowing tablets for a disease they may or may not have. To do that, people would have to be convinced that the disease was a risk for them and their families. They would also have to believe that the drugs, which have potential minor side-effects, would be effective and safe.

"This is more difficult than curative medicine," said Dr. Hyanga Nyanga, the zonal medical officer for the island of Pemba. "If somebody is not sick and then you tell them to swallow drugs, they will not be willing."

To persuade people to take the medicine requires a well-informed public. But LF experts in Zanzibar warned that there were long-held and widely believed misconceptions about the disease. For example, a substantial number believed it resulted from witchcraft. And many people thought that elephantiasis of the legs and of the genitals were two different diseases.

To help develop a social mobilization plan, WHO sent two social mobilization experts to Zanzibar in late June 2001 to work with the local authorities. One of the advisers had originated a marketing strategy for promoting health behaviours known as COMBI (Communication-For-Behavioural-Impact).
The other adviser had experience using the COMBI approach for a polio campaign in her homeland of “Somaliland”.

COMBI begins with an intimate appreciation of the "customer". At the heart of COMBI is an intimate understanding and appreciation of the perspective of those who will benefit from the programme. That is what’s different about this. COMBI also identifies the barriers and constraints that may prevent people from taking up the treatment.

Zanzibar’s health, media and government officials working with WHO staff and consultants, designed a broad social mobilization campaign. The campaign consisted of many tasks, each of which needed to be performed in the right sequence and at the right time. If it worked, it would be a human symphony. A big failure could capsize the project. If the campaign failed to get enough people to participate then the size of the remaining reservoir of infected people would be too large to interrupt the cycle of transmission. The campaign would fail.

One of the complications facing the planners was that not everyone would be eligible to take the drugs. About 100,000 people would be unable to participate. They included the very young and very sick, pregnant women and women in the first week of lactation. So the target population in Zanzibar was not 900,000 but 800,000 persons. This meant that to protect the entire population, LF drugs had to be taken by all of the eligible population. The LF campaign would have little room for error.

A lot would be riding on the success of COMBI.

Zanzibar was split into 10 operational units. A team of four people headed by a District Supervisor were responsible for planning, implementation and co-ordination of the campaign for their districts.

The highly populated urban areas, including Stone Town, were further split into three zones.
To better understand their customers, the WHO social mobilization advisers began what they called "walking around research". They travelled to villages and talked with leaders, knocked on household doors and asked to chat. One of them met people while jogging, and they also interviewed taxi drivers and restaurant waiters. They studied the culture, politics and history of Zanzibar and what people knew about the disease. While they found there was a general awareness about the disease, they also found something that was deeply troubling. "I didn’t get a sense that people felt they were at risk of the disease," recalls one of WHO’s advisers.

Unless people felt a personal risk, it would be hard to motivate them to take the drugs. Many people did not know that LF came from mosquitoes. With this understanding, the WHO team met with members of the ministries of health and of education, and began to outline a potential campaign.

An initial proposal suggested establishing drug depots, like those that had been used in the polio vaccination programme, where people could go to get their LF drugs. WHO advised that this would not work. According to the COMBI theory, individuals made decisions based on "cost versus benefit" calculations. Distribution centres had been a success in the polio campaign, but with polio the risk was to one’s child which has a greater urgency than the risk to oneself. Moreover, in countries where the polio campaigns were operating, polio was a visible risk. Everyone was aware of it, and aware that his or her children were at risk. Consequently, because the risk was perceived as real and a risk to their children, the "cost" (time, effort, money) of going to a health centre was low.

The cost/value calculation for LF was just the opposite. The value of the drugs was already perceived to be low since most people felt they were not at risk or they could avoid the risk altogether by not eating green coconuts or taking other preventative steps. The "cost" of acquiring these drugs would be high if people were
required to leave home. The high coverage threshold would not be reached, the WHO social mobilization experts said, if it relied on drug depots.

For the LF campaign to succeed, the perceived cost had to be lowered. WHO advised and the Zanzibari authorities agreed that delivering the free drugs directly to the home would entail the lowest possible cost. With home delivery, the only need was to swallow the tablets.

In addition to lowering the cost, the campaign needed to increase the perceived value of the drugs. The government/WHO team decided that LF information had to reach into the home. People had to know that the disease was caused by parasites delivered in the bite of a mosquito, that it could lie dormant for years, that the disease was incurable when it appeared, and most importantly that everyone was at considerable personal risk.

The people of Zanzibar had to understand that the drugs could kill the parasites but in order to protect the entire community, everyone had to take the drugs.

Staff at Kizimkazi Health Centre, headed by Mr Kasim Ali, Community Health Nurse.

Also present are Mr Khalfan Mohamed, LF Programme Manager, and Mr Mohamed Mkenga, Acting Director for Health Education Unit, MOH.
Delivering the tablets to the home would require thousands of people. A quick calculation revealed that if one person was to reach 50 homes in one day, then the campaign would need to recruit and train 3,000 Filaria Prevention Assistants (FPAs). The FPAs were like the door-to-door "personal sellers", who have helped build giant corporations including Hoover and Avon. Similarly, the FPAs would play the most critical role in the LF campaign.

Zanzibar’s personal sellers had to be special. People taking the drugs had to have confidence that the drugs were safe and effective, and that, in turn, depended on the confidence they would have in the drug distributors. To establish trust, they had to be seen as a neighbour but more than a neighbour. They had to be of good character, respected in their communities and committed to eliminating LF. The FPAs also had to be knowledgeable about the drug and disease, which meant they had to be trained, and trained not only in the technical aspects of the disease and the drug but also in how to communicate with others in their homes. They had to be able to engage people inside the homes they visited.

So, as part of the design of the training programme, the FPAs were to participate in role-playing exercises. This would help them understand what a customer might be thinking. In fact, half their training was designed to be in repeated role-playing exercises.

Finally, they had to be identified as a part of the LF campaign with LF badges, tee shirts and caps. And they would be supplied with tools for their work including tape measures (since the number of drugs given was based on a customer’s height) and note-
books to record who participated (vital for validating the total number of participants). For nearly a week’s worth of work, the Ministry of Health decided the central players in this programme would be given the equivalent of US$16 for food and transportation. This would consume nearly half of the campaign budget.

The FPAs would make three visits to each home. The first visit, three weeks before Filaria Day or "F-Day", was to establish a bond, to register eligible family members and explain the purpose of F-Day. They would inform people that everyone would need to take the tablets every year for the next five years. They would also talk about possible side-effects like headache or pain in the stomach or genitals. If this happened, they said, it would mean the drugs were working to clear the parasites. Mostly importantly, the FPAs would listen and respond to the concerns of their "customers".

On the second visit, two weeks before F-day, the FPA would go over the same messages, give each family member a pencil with the F-Day logo and date as a reminder, and show the tablets. Showing the tablets was important so that people could see and hold the tablets they would be taking on Filaria Day. On this second visit too, the FPAs would inform those in the home that each FPA would be required to watch each person swallow their tablets, as well as answering any questions or concerns.

The third visit, on F-Day, would be to deliver the drug and leave behind a small flag to display to the community that this household had played it’s role to keep everyone healthy.

“I am happy to protect my people from this disease.”
Issa Hassan Haji, age 20
Filaria Prevention Assistant.
Kiembisamaki, West District
Whose campaign is this?

The World Health Organization supplied technical assistance, negotiated with pharmaceutical companies to have the drugs provided without cost, and channelled the Gates Foundation’s donation to finance the project.

Beyond that, this programme belonged to Zanzibar.

This is an important key to success. It helps explain why the LF programme team worked far into the night to overcome the obstacles that arose. And it explains why thousands of drug distributors visited 50 to 90 homes time and again, even when the reception was sometimes hostile.

"They were motivated," says Zanzibar’s Principal Secretary of Health, Omar Mussa. "They felt this project was their own. It was not owned by WHO. This was our project."

And the benefits, including building a stronger relationship between the government and the governed, are Zanzibar’s as well.
The messages delivered by the FPAs during the home visits could be reinforced by the media, advised the WHO consultants. A series of radio, and television messages was planned. The campaign also called for banners to be stretched across roads and dangling from lamp-posts. The COMBI advisers said that for new product introductions to be effective, the consumer had to be hit with a product-related message about six times a day. That would be the goal for the Zanzibar campaign.

Schoolchildren would provide a conduit to funnel LF messages into the home. Teachers would distribute LF fact sheets to students, and the students would be required to read the material to their parents. To verify that they had done this, the parents were to sign the fact sheet and the student would return it to the teacher.

The plan also established two "Filaria Prevention Riders Bicycle Touring Teams" for the country's two main islands. Each team, comprising ten riders, would be dressed in orange, the F-Day colour. The teams would circle each island, stopping in as many villages as possible where they would be greeted by local political leaders, called Shehas, and the religious leaders (Imams). The riders would mingle with the audience and distribute F-Day information sheets. They would also answer questions about the drugs and side-effects. With luck, the media would print and broadcast reports about the rides and

Supporting the personal sellers

The banner reads:

Fight the disease of filaria and the hydroceles in Zanzibar on the 27th October 2001.

Remember that anyone can get filariasis. To get rid of it, take the tablets.
thus deliver another LF message into the home.

A lottery was also included in the plan. During the second home visit of the FPAs, residents would be allowed to enter their names in a lottery. Those selected and their FPAs would receive prizes of donated colour television sets, bicycles and mopeds.

Closer to F-Day, a new series of events would be launched. The village political leaders would be asked to spread the LF messages at community meetings. Imams would be asked to include a mention of the programme as part of their sermons in the mosques on Friday, the day before F-Day. Sound trucks would announce that F-Day had arrived. And on F-Day itself, radio and television would broadcast the news of Zanzibar’s President swallowing the tablets himself.

Not to be announced, but still part of the strategy, was a “mopping up” day, on the day following F-Day, to get at those people who had somehow been missed.

That was the plan. It was built around personal sellers who were backed by a broad advertising campaign, community leader involvement, promotional incentives and intense media coverage.
"LF is endemic in our country. Everyone is at risk. About 15% have the parasites, worms, which are transmitted from one infected person to another by mosquitoes. You know the problems of the disease. Once you have the disease there is no cure. These worms in the body cause the disease, and the worms can exist in your body without any effect on you for years. You will be as normal as everyone else, even with the worms in you. But a person infected with the worms will most likely get the first signs of filaria in about five years or longer. If we kill these worms, then we don’t get the disease... We should assume that we all have the worms in us. If we can eliminate all the worms in everyone in our community, then we can get rid of the disease. We have the drugs to do just this. For adults, just four tablets taken once a year for five years will destroy the worms, which cause filaria. "The Ministry of Health will begin a campaign to eliminate filaria on 27 October.

Our health workers will come to your home with the pills, which will destroy the worms that cause filaria. These pills are free. They are usually very expensive, but the World Health Organization is making them available to us free. They are small tablets, easy to swallow. Yes, like every drug you take, some people may have some side-effects such as headache and nausea. These are all temporary and will go away. People who are infected with the worms will probably experience more of the side-effects as the drugs begin their effect of killing the worms. Everyone must join in taking the pills. If only some do, the mosquitoes can still transmit the worms from the infected who did not take the pills to those who did take the pills.

On Filaria Day, welcome our health workers, take the pills and swallow them. Protect yourself and your family and your neighbours from the disease of Filaria and destroy the Filaria worms."
The WHO advisers had finished the most difficult part of their work and left the island. Now it would be up to the people and government of Zanzibar to discuss, adapt and execute the plan, with continued support and advice from the WHO team.

The COMBI plan had been developed by members of the Zanzibar community, staff members of the Ministry of Health, and the technical advisers from WHO. Senior government officials endorsed the plan, but dropped some of the proposed activities.

The areas dropped were thought of as the "glitter" components of the plan. They included the cycling tour, the flags to be hung from houses of participants, the dangle banners and, most importantly, the lottery.

Government officials would later explain that the nation had just finished an intense political campaign that did not use any of these promotional activities. What, they asked themselves, would people think of such an extravagant effort to provide tablets to them? The officials worried that such an intense effort might itself create suspicion. ("If the programme was so good, why spend so much effort?") And they didn’t want to confuse a health campaign with political trappings.
Finally, they thought that several aspects of the plan would produce a festive atmosphere rather than sensitize people to fight an unpleasant health situation.

More threatening was bureaucracy. Typically, requests for funds are passed through a series of intermediaries from the country to WHO headquarters in Geneva; the money itself flows through these same intermediaries from Geneva back to the country. The system of accounting procedures is designed to prevent abuse and waste, and those involved in financial matters (WHO and counterparts) need to have an understanding and comply with these procedures. In this case, the flow of the funds lagged behind the need to fund activities as F-Day rapidly approached and the budget breakdowns submitted were not detailed enough. The system was also jammed when estimates for printing posters seemed to be extraordinarily high. Dialogue, cooperation and transparency between WHO and the Ministry of Health has since ensured that a new system is in place which promises clarity and speed in financial accountability.

For a time, the LF campaign was unable to purchase anything. Just three weeks before F-Day, there were no posters, banners, tee shirts, badges, or balloons. And the FPAs were also left without the tools they had expected. Perhaps most threatening of all, with less than two weeks to go before F-Day, the drugs had not arrived. Actually, they had been transported to Dar Es Salaam, but they were held there for a month. When the shipment was finally cleared, the drugs were put on a boat for Zanzibar. But when the regular ferry arrived, no drugs were on board. In fact, the drugs had been sent on another boat and when no one claimed them at the dockside, they were returned to the mainland. More telephone calls followed, and the shipment finally arrived in Zanzibar to be claimed the following day, just 11 days before F-Day.
hen one of the WHO advisers returned to Zanzibar in early October, two-thirds of the COMBI plan had not been completed. Immediately, she was asked if F-Day should be postponed. But first she conducted an assessment of her own, by meeting with FPAs from rural and urban areas and finding out what people knew of the programme.

The Zanzibar media campaign was going well. The radio station, for example, had done several talk-shows about the campaign and regularly mentioned the campaign just before and just after the regular, widely broadcast news programmes as well as incorporating it into the most popular programmes.

A bigger problem was the impact on the FPAs. They did not have their tee shirts and caps to identify them as part of the LF campaign in their communities. They also were not provided with the registration books to record the names of individuals eligible for the treatment.

However, items in the campaign that didn’t require a cash payout had been accomplished. A National Task Force was formed along with a National Technical Committee. The Task Force set 27 October as F-Day. It was a Saturday, so most people would be at home. The Zanzibar LF team met with every community leader, known as shehas, on both islands. Meetings with teachers were held and the teachers agreed to participate in the campaign by distributing the information sheets and balloons to pupils under 10. No balloons or information had been printed, however, because of the disbursement snag. Members of the Task Force and Technical Committee visited the main Islamic institutions in the country and won their support as well.

The work of selecting and training drug distributors had been completed. Many were teachers, which led to some professional jealousy with regular health staff. Because initial estimates of households were based on unreliable census data, it soon became apparent that more FPAs were needed. The corps of FPAs, which was initially set at 3,000 persons, rose to 4,077 in October. The training
The programme was robust enough to absorb over 1,000 unplanned FPAs, but the budget remained fixed. These dedicated people then decided among themselves to keep within the budget by reducing their own reimbursement for expenses from an equivalent of US$16 a person to just under $12. In this way, everyone could be paid and the programme would not be jeopardized.

Essentially, the WHO adviser found that there was a high awareness of the programme in the country and the FPAs had carried out the first visit. So, the decision of those involved in the programme was not to postpone but to rapidly unfreeze the funds, do what could get done, and continue with F-Day as planned.

The plan was triaged. The most important items were re-ordered into a list of those items that could be accomplished in the three weeks remaining. Quickly 7,000 posters were printed and distributed to the urban areas only. The posters announced the programme and showed a mosquito biting a human and a man swallowing white tablets. The 150 banners, asking people to participate and support the programme, had already been printed and were waiting to be hung across roads and junctions throughout the Islands. Two hundred thousand information sheets were produced and distributed to schoolchildren (some parents refused to sign them, fearing that the tablets were dangerous and signing relieved the provider from liability). FPAs were given the answers to the questions that had stumped them on their home visits.

Everything was now rushed: printing of extra posters, tee shirts, registration books, badges and distributing materials, as well as the drugs.

With the critical support and facilitation of the WHO office and the MOH, time lost would be gained.
Politics

The LF campaign unfolded during a politically sensitive year in Zanzibar. There were minor misunderstandings between the ruling (CCM) and opposition party, and allegiance to one’s party is high. Hence the government could count on getting less than the majority of the population required to support the programme. However, reconciliation was high on the agendas of both parties.

"We don’t have such bad politics to go so far as to hurt the health of the people," said Ismail Jussa Ladhu, an official with the opposition Civic United Front (CUF). "We want our people to be healthy to take part in the political developments of the country."

The success of the programme rested on the cooperation of both parties and the reconciliation conference that took place during October was the ideal opportunity for a public display of unity. A chance for both parties to show that they had resolved their differences and were working together for the future of their people.
"This disease doesn’t know the difference between the opposition and the government," says Uledi Mwita Kisumku, the Ministry of Health’s Deputy Principal Secretary. "It affects everybody. In the war against any disease, we have to collect all our forces. This is not really a political issue. It is a common problem for the whole country."

It is becoming apparent in Zanzibar that public health is an issue outside the boundaries of politics. After working together last year, the Principal Secretary of Health has pledged to give a more prominent role to the opposition in this year’s mass drug administration campaign. In fact, senior members of the ruling party have suggested that both the Chief Minister and the leader of the CUF be televised taking the pills together on the next F-Day.

In its own way, the LF campaign is helping to repair tension in the country’s political system.
The vital link

The FPAs, originally envisioned as the heart of the project, had indeed turned out to be the dedicated people the LF campaign needed. The local officials had chosen people who were generally highly regarded in their communities, often teachers or health workers. Yet the job they faced was tougher than anyone envisioned. Some FPAs had to cover not 50 homes as planned, but 60 or 70. (On F-Day, some would be asked to reach as many as 90 homes.) The FPAs sometimes ran into hostile sentiments in the homes they entered. And they worked long hours; sometimes walking through rural areas at 11 p.m., to reach all the homes they were responsible for.

"This is the first programme in which we worked so hard and received so little," said one FPA, Mzee Saleh Abdalla, a physical therapist from Pemba. "But this is our place. This is for the benefit of our people."
The FPAs had attended a six-hour training programme and they had conducted their initial visits. Without funds to pay for the registration books, the personal sellers had to use their own funds to buy school exercise books for the record-keeping.

After the first home visits, the FPAs found that they needed further training. They were asked questions they could not answer. Why are the drugs free? Why not test our blood first? Why you, and not a medical doctor? Why LF, and not malaria? Why do I have to take the drug in front of the distributor? What effect would the drug have on people with diabetes, high blood pressure, heart problems, and ulcers?

A number of activities were undertaken to support the FPAs.

The WHO team asked the media to increase their coverage and boost the number of LF ads running everyday. The BBC Swahili World Service prepared a report on 22 October for broadcast before F-Day. Press releases produced news stories about the LF programme and interviews with officials in the Ministry of Health. Even the President of Zanzibar followed the LF programme through the media.

The FPAs conducted their second home visits, still without their tools. During the final week, the shehas held extra community meetings about LF. On Thursday, 25 October, all school-children were asked to carry the message home that the Saturday would be F-Day. During Friday sermons (khutbah) in the mosques, the Imams encouraged people to participate in the mass drug distribution.
Everything was focused on 27 October. This was the day the programme had to get the majority of the population to participate and take the tablets.

The social mobilization campaign did its job of mobilizing the entire population. A substantial percentage of Zanzibaris had heard the LF messages through radio and television, at community meetings, or from their children, and seen the posters and banners. The people were informed and motivated.

By 9 a.m., the stage was set in Kizimkazi for the official launch of the campaign. Villagers lined the road as the officials’ cars streamed past, delivering the Chief Minister, the Deputy Minister of Health, the Regional and District Commissioners, the WHO Representative, and guests from other agencies such as UNICEF and the Aga Khan Foundation. The media covered the event, which included beating of drums and dances specially commissioned for the day. Throughout the day, radio and television broadcast the message: "Take your tablets. Support the campaign."

Many other districts had also prepared their own ceremonies to inaugurate F-Day. Various political and community leaders were also seen taking the tablets.

Some people had even postponed their journeys until after the distribution day, according to Himudi Ali, a sheha (community) leader for Matude. His daughter, Mwanakheir Hassan, the local school teacher and a full-time FPA during the campaign, said: "Everyone took the tablets except one man. He ran away twice, but I will go back for him."

At the local health centre in Paje, Zaila Abdulfatah Muse, an FPA, and health worker Amour H. Amour were catching up with the situation in their district. It is lunchtime and Zaila has already visited all her 50 households. "Generally people are accepting the tablets," she says, "However, some people are suspicious because the drugs are free."

Problems had begun to surface.
"The main difficulties are that people are scattered," according to Amour, "There are people working in hotels that have not been registered at all." His solution was to quickly dispatch an FPA to register and distribute the drugs to all workers in the hotels and restaurants in the area. Also, seasonal fishermen who were registered in their home villages with their families, but were working on the East coast and staying in temporary accommodation also had to be registered and given their tablets.

One woman had walked to her local health centre for the drugs because she had been away from home in the morning. She had been visited twice by her FPA and had also heard about the programme through the radio and television. Some of her family and friends had accepted the programme, but others were reluctant.

By late afternoon, one sheha after another, in urban and peri-urban districts, were reporting that they had run out of drugs. The FPAs were sitting under trees with no drugs to deliver. People were flocking to the health centres and sheha headquarters and leaving empty-handed. This was the situation in the urban and peri-urban areas of Unguja.

"The registration did not tally with the required amount of drugs," said Shambani Mwiny Mzee, the leader of Sheha Fuani. "There are still 2–3000 people without tablets. We have already run out of tablets to cover the population." By early evening, the radio and television station began broadcasting news from the campaign officials that F-Day was formally being extended to the next day. Everyone would get their tablets.

Later that evening, district supervisors met to figure out where there was an oversupply of drugs and how to get those tablets to districts that had exhausted their supply. Cars were dispatched to shehas and health centres to try and estimate the shortages. Khalfan Mohamed, the MOH Programme Manager, visited the chief pharmacist, who was at home having dinner with his family, to provide access to the medical stores the next day.
Throughout the day, constant phone calls were made between Khalfan and Ali Rashid, the Coordinator in Pemba. There had been problems related to the selection of FPAs. A substantial number were chosen from the ruling party. However, these difficulties were resolved by the public support from the opposition party.

The experience of Mzee Saleh Abdalla, an FPA from the island of Pemba, illustrates the concern. "People were not ready," he told a WHO staff member months after the campaign. "They were opposed to it. Because it was free, they asked a lot of questions. They thought that maybe there was something behind it. They said, "We don’t need these drugs. Please don’t come here. If it is something beneficial to us, you would never bring it to us."

However, phone calls confirmed that the people of Pemba were participating in the programme.
Early on Sunday morning, a motorbike was buzzing through Zanzibar’s biggest city, Stone Town, delivering drugs. The programme managers had spent the night locating unused tablets and planning ways to distribute them, including by motorbike in areas where the streets and alleys were too narrow for cars.

Some people had refused to take the tablets the previous day. Their suspicions were aroused by two components of the programme: The drugs were free and they were delivered to the home. On F-Day those suspicions had kept this group of people who had been offered the drugs from actually taking them.

On Day Two, however, media reports and personal accounts began reaching the reluctant population with word that national and village leaders had taken the drugs. This was a practical endorsement of the drug’s safety and value.

And something else started to happen. Those who had been keeping the drugs now swallowed them. And those who had rejected the drugs went searching for them. It was a mass movement. Crowds surrounded the homes of many FPAs and local community leaders. They all wanted the drugs.

As hoped, the people of Zanzibar had made a rational cost/value decision at some point between day 1 and day 2. Zanzibar needed high coverage. Initial reports, based on the drug distributors’ own registration, indicated that the majority of the eligible population had taken the drugs. An independent survey confirmed this number to have reached 76% of the total population. Zanzibar was on its way to eliminating LF.

One of the benefits of the treatment is that it also destroys intestinal worms. In Pemba, some schoolchildren discharged intestinal worms through stools and vomiting. This validated the potency of the drugs. Most importantly, there were no severe adverse reactions that endangered anyone’s life.

The number of people with side-effects in some villages was quite high. In Kizimkazi Dimbani (Unguja), a place highly endemic with the disease, 136 people in a population of 248 reported to the health clinic with side-effects. However, they had been prepared by the FPAs and the mild effects were treated with paracetamol.

"Even now people are asking for the tablets," says Saada Ali, the nurse in charge of Kizimkazi Dimbani’s health clinic. "This programme should continue."
Keys to success

The nation’s sense of ownership motivated thousands of people. They were making life better for themselves and their neighbours.

A massive health campaign, based on the COMBI principles and modified to meet cultural conditions, engaged with individuals, families and communities.

Dedicated personal sellers, who visited every home to promote the programme, brought the COMBI lessons into the home.

Involvement of every sector of influence, including district commissioners, religious leaders, widely respected teachers, and the entire public health staff, eventually generated confidence in the campaign.

Political commitment and personal involvement of senior officials in the ruling and opposition parties also built confidence in the safety of the drugs.

And most of all, dedication to making this campaign a success - no matter what the challenges were - compelled people to work long, hard hours to improve the health of everyone in Zanzibar.
Public-private partnerships at global level have been promoted by WHO’s Director-General, Dr Gro Harlem Brundtland, since the beginning of her mandate. Dr Brundtland is convinced that a strong, broad-based partnership between the private and public sector is one of the most efficient ways to increase and diversify additional investment in public health leading to sustainable health interventions. Influential donors have come to adopt this view as well, and the number of partnerships keeps multiplying.

In the context of communicable diseases, a number of global partnerships are advocating political and public commitment to eliminate or eradicate targeted infectious diseases, by giving to the poorest in the world greater access to affordable and effective treatments. They also pool research expertise, raise financial resources, and support governments to acquire new tools and strategies against communicable diseases.

Today, partnerships that include civil society, NGOs, academic and research institutions, governments, UN agencies, private businesses and philanthropists are among the most widely used means to achieve sustainable health outcomes.

The Global Alliance to Eliminate Lymphatic Filariasis has a strong global commitment, a major component being a private–public partnership where two pharmaceutical companies have committed themselves to providing substantial drug donations to LF endemic countries. The goal is to eliminate the disease within a specific and limited timeframe.

Criticisms of partnerships have been that, in most developing countries, public health systems are poorly equipped to provide even the most basic health services to meet the main health needs of the population. Global partnerships are therefore entering an arena of under-financed health services, with poor surveillance and reporting systems. Furthermore, economic factors such as debt burdens, and adjustment policies also contribute to a fragile health infrastructure. The result is a failure of sustainability. Why? Because, critics argue, programmes are dependent upon external drug donations, and scarce national health resources could be diverted from established priorities and lead to the creation of phantom health agendas. The critics also say that partnerships often generate vertical programmes, which do nothing to enhance a nation’s existing public health infrastructure.

These are legitimate concerns as the biggest challenge facing many governments in developing countries is to find new solutions and strategies to improve the nation’s health, against the onslaught of infectious diseases and a background of dwindling resources. More effective use of national resources, the creation of local partnerships based on sharing of resources and expertise between private and public...
sectors, and the widespread inclusion of civil society are becoming increasingly vital to address the needs for improved and expanded health care. And this means introducing changes and diversifying at a pace appropriate to each country’s capacity, while planning longer-term improvements.

The challenge of the Global Alliance is not only to provide resources, but equally to work alongside governments to facilitate and support the formation of self-supporting new partnerships and synergies within countries. Based on the experiences of the first year, the LF elimination programme in Zanzibar is poised to make such progress based on a number of features, such as:

- LF was accepted as a national health priority when the Zanzibar government created a special unit to deal with the disease in 1995. Since then, the government has undertaken several activities to control the disease. The LF elimination programme is being delivered through the existing health structure, and an important part of the strategy will be the inclusion of activities addressing the prevention and alleviation of morbidity related to LF infection, as well as the rehabilitation of those who already have the disease. Morbidity prevention, control and rehabilitation will be developed with communities and delivered through active participation of the patients, households, and the existing local health systems.

- LF has long been high on Zanzibar’s public health agenda and been debated many times in its House of Representatives. When the opportunity arose to eliminate LF, a calculated decision was made by Zanzibar’s public health officials. Moreover, the majority of the programme was paid for by donor grants, and WHO provided its technical experts without cost so that national health resources were not diverted. The LF programme is also strengthening integration with other services, for example, the intestinal parasite control programme and the malaria control programme.

- While the claim on Zanzibar’s resources was comparatively small, it was still a significant contribution for Zanzibar. Through the FPAs more LF sufferers have been identified and these people can now be helped. The elimination of LF from Zanzibar could have far-reaching economic implications, given the perceived link between the disease and poverty. Although no research exists on the economic benefits of the LF programme in Zanzibar, India claims that LF costs the economy $1 billion a year.

Vital to the success of the programme was the strong and committed leadership of the government and civil service, the dedication of health workers, teachers, and young people, as well as the ownership of the programme by local communities. A strong foundation has been laid in Zanzibar which can be further enhanced by attracting and tapping into local resources, talent and expertise, and through creating meaningful partnerships with other stakeholders, private businesses, individuals and social groups.

The personal and collective responsibility and ownership shown by the people of Zanzibar in the first year of the programme has to be maintained and extended for the next four years. If this happens, and there is no reason why it should not, LF should be eliminated from Zanzibar in five years, leaving behind a legacy of an enhanced health system capable of delivering other health interventions through mass campaigns.
The future

Everyone is excited about the results of the 2001 campaign, and modifications are being made to make the 2002 campaign even better. A total observed coverage rate of 76% of the entire population is an excellent achievement and there are also partnerships being forged with other programmes.

Much of the success of the 2001 LF campaign in Zanzibar was due to personal commitment. But health workers in Zanzibar have experienced two very different broad public health initiatives and they know that commitments can change.

In the first, an international campaign supported by WHO and UNICEF began focusing primarily on reducing the mosquito population. The programme had spectacular results. Within ten years, malaria rates had plummeted to 7.6% and 1.7% in the two major islands. However, in 1968, the malaria programme stopped most of its activities and the disease quickly rebounded. Today, the rates are high, making malaria one of the major public health problems in Zanzibar.

Secondly, government commitment to the schistosomiasis and soil-transmitted helminth control programme has yielded benefits for a generation of children who are now adults leading active and productive lives. The programme, which began in 1986, with strong collaboration between the Ministry of Health and Ministry of Education, regularly carries out deworming of schoolchildren. The effect has been a reduction in the intensity of infection, improvement in nutritional uptake, and a positive impact. Children are learning better and growing better. As a result, this programme has laid a solid foundation for sustaining health interventions and has changed people’s perceptions namely, a disease without outward signs of illness can be treated.
However, people in Zanzibar who have worked in these and other large public health campaigns in the past know that one outstanding year does not ensure continuing success.

Success will only be achieved if commitment is maintained at the political and community level and through the continued support of the Global Alliance Partnership.

"We don’t want the malaria experience to come back," says one experienced health worker. "We are afraid of that. If we stop the programme, the vectors are there (to continue spreading the disease). People fear that this (commitment) will not be sustained."

Zanzibar has completed one year of the campaign and faces four more years. The present high coverage rate has to be maintained. To achieve that, an all-out effort will be required by all the players year after year.

Then and only then can the LF campaign in Zanzibar be declared a success.
United Republic of Tanzania

Zanzibar (Unguja)

Pemba
ABBREVIATIONS

CCM  Chama Chama Mapinduzi (The Revolutionary Party)
CUF  Civic United Front
COMBI  Communication for Behavioural Impact
FPA(s)  Filaria Prevention Assistant(s)
LF  Lymphatic filariasis
MDA  Mass Drug Administration
MOH  Ministry of Health
WHO  World Health Organization
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