



Mosquito Nets Save Lives

Mozambicans tell their stories



Awareness is rising about malaria prevention among rural women



Never been to school, but knows how to prevent malaria

Isabelle Fernando lost her two children, one she believes to witchcraft. "My daughter died at six months. She had a problem with her backbone, so I took her to the traditional healer. It was then I learnt she had been bewitched," she says in Macua, the local language. "My son died of diarrhoea when he was five months old."

Isabelle has never been to school, does not know how to read or write, and does not know her age. But she does know how to protect herself and her unborn child against malaria.

She is five-months pregnant and it is her second visit to her local health unit, a 20-kilometre walk from her remote village. "I left home before the sun rose (about 4a.m.) to get here for my consultation." She concedes she might not have made the effort for that first trip, if she hadn't heard of the free distribution of nets for pregnant women. "I had heard about the nets," she says. "I hoped to receive one". Asked whether she would have asked if she was not given one, Isabelle smiles coyly. "No, I wouldn't be able to ask."



Isabelle Fernando
coming out of the health centre



She was given a net during that first visit, and she says she is using it. Although Isabelle has not had the chance to go to school, she explains clearly in Macua why insecticide treated nets prevent malaria and the dangers of malaria especially to pregnant women and infants.

The government with the support of partners like Malaria Consortium has used a variety of means to transmit messages in Portuguese, the official language, as well as in local languages, about the free net distribution for pregnant women at antenatal clinics. Due to high levels of illiteracy, the communication is mainly through word of mouth, the radio or through visual explanations, such as flip charts, which are used by nurses, who have been specially trained on malaria control, at the antenatal clinics.

Ansha Lurdes, the nurse at the health centre which Isabelle attends, in the rural district of Monapo, some 125 kilometres from the city of Nampula in the north of the country, says that the pregnant women who come to the centre, "all know about the nets and most of them will ask for them."

The challenge is to access even more women living in remote areas, like Isabelle. A team from the health centre go out on a mobile unit up to 90 kilometres away from the centre, three times a week to reach communities.

It is not an easy journey. Out of the 21 districts in Nampula, only three districts are accessible by tarred roads, points out Armando Matos, the assistant programme officer in Nampula for Malaria Consortium. "Most of the roads are very bad dirt roads."

60% of pregnant women sleeping under nets

The aim is to have 60% of pregnant women countrywide sleeping under nets by the end of 2007.

The nets are a proven means of malaria control, and could drastically reduce the high mortality rates in Mozambique. Some 408 women die due to complications during childbirth out of every 100,000 pregnant women. More children die of malaria in Mozambique than of any other disease, accounting for 60% of the child paediatric hospital admissions and 35% of hospital deaths.

Isabelle heard about the bed net distribution during a talk given by a health worker in her remote community. She is convinced of the importance of the net. Although she and her husband are subsistence farmers, and have little income to spend, she says, that she knows that the nets are basic items that she needs. "I don't want to be without a net now."



Malaria takes devastating toll on pregnant women and children



A bad Start

Belinda's short life did not get off to a good start. Her mother had malaria while pregnant with her, which probably contributed to Belinda's low birth weight of only two kilogrammes.

During her seven months of life, Belinda has had an uphill struggle to survive.

She lies in her young mother's arms, looking frail. Her arms and legs are emaciated and her hair is thin and brownish.

"She has been sick for two months with diarrhoea, fevers and now she has malaria too," says her mother, Isaura Paulina, in the local language Macua, as she sits on the hospital bed, rocking her baby.

Belinda's father is no longer with them. "When Belinda fell sick, my husband abandoned me," adds the mother softly.

However, since Belinda was admitted two days ago in a rural health centre in Rapale district in the northern province of Nampula, she has improved slightly. There is hope that Belinda will not be one of the child mortality statistics in Mozambique. Some 125 children die of malaria each day, which accounts for 35% of all child hospital deaths under the age of five years.

Lost baby to malaria

Twenty-year old Paulina is clinging to that hope, but there is fear in her large eyes. "I lost my first child to malaria when he was just one month older than Belinda," she says.



Isaura Paulina
cradling her baby Belinda
who is sick with malaria



"I also had two miscarriages before, each time I had malaria." Malaria while pregnant can result in miscarriages and can cause life-threatening anaemia. Such deaths contribute to the country's high maternal mortality rate. An estimated 408 women die due to pregnancy-related complications out of every 100,000 live births.

Paulina's life might have been different if she had benefitted from the government's free distribution of treated bed nets for pregnant women through the public health service supported by Malaria Consortium and its partners. The nets are a cost-effective way to prevent malaria. As well as stopping a mosquito biting the person under the net, the insecticide on the net repels or can even kill the mosquito.

The net distribution to pregnant woman as they attend antenatal clinic has the added advantage of protecting a baby for the first two years, who traditionally sleeps with his or her mother while breastfeeding.

By the end of February 2007, the health centre had distributed 6,050 nets throughout Rapale district. Unfortunately Paulina did not attend

the antenatal clinic in time. "I only went to the health centre when I was sick with malaria," she concedes.

In the three provinces of Nampula, Cabo Delgado and Inhambane, where Malaria Consortium-DPS partnership is present, the aim of this DFID-supported programme is to distribute 411,000 bed nets through the public services. By the end of February 2007, some 245,000 nets had been given to pregnant women coming in for pre-natal consultations.

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Pregnant women eager to receive net

Gradually women are becoming more aware of the free net distribution. "More pregnant women are now coming in the first term of pregnancy for ante natal examinations, because they want a bed net," says Minakumary Pratasinh, the nurse in charge of the programme in the Rapale Health centre. "Some pregnant women walk 50 kilometres, crossing rivers, over hills and through the bush to get to the health centre because they have heard about the net distribution. Before the net distribution, it was difficult to entice pregnant women living far off to come to the health centre in their first term of pregnancy."

To avoid women selling the nets, they are given to them with the package already open. "I don't see any indication of the women selling them," says the nurse. "When I visit the homes to monitor, I always find the nets there." However, she adds that in a few cases, some women have put the net away saying, "they are waiting to use it when the baby is born. We explain again that they must use it while pregnant as well."



Malaria takes devastating toll on pregnant women and children

The educative part of the programme has been central to the success of the programme. The Ministry of Health, the Malaria Consortium (MC), and its partners, provided a four-day training of trainers on how to prevent malaria in pregnant women for four health workers in each district in Nampula. The participants in the workshop included a director of the health facility, a doctor or clinical nurse, and the nurse working in the pre-natal clinic.

The training focused on the proper use of nets as well as prophylactic treatment for pregnant women. They then carried out training with their staff at the health centre. "The training was a success," says Vasconcelos Mario, the Malaria Consortium programme officer in Nampula. "When we monitored the health centres, we found that all the staff were able to explain clearly about the importance of the nets and how to use them." To help the health workers with their educational work with the mothers, MC has provided financial and technical support to the Ministry of Health to develop and produce flip charts with drawings and key messages.

"The net protects you and your children against malaria..."

Lessons have been learnt too, says Mario. "We have even run out of nets now because we under estimated the number of pregnant women coming for consultations. The nets have made



more pregnant women come for check ups. It is an increase of 20 per cent.”

“Communication needs to improve between the health centre and the provincial health department, so that they are advised in time to make orders before the stock runs out.” says Mario. In addition regular analysis and review of the district and provincial statistics is needed for improved and needs-based planning in the future.

Paulina knows the importance of the bed net.

“The net protects you and your children against malaria. I bought a net after my first child died of malaria, but after a few years, it got old and torn. I didn’t have money to but a new one,” she says not taking her eyes off Belinda.



Global:

- Malaria causes over 1 million deaths per year
- There are 300 million cases of malaria annually
- Malaria kills one child every 30 seconds

Africa:

- 90% of all deaths from malaria occur in Africa, mainly in young children.
- Malaria costs Africa more than US \$12 billion annually in lost GDP.
- Malaria slows economic growth in African countries by an estimated 1.3% each year.
- Malaria hits the poor and keeps them poor.
- A poor family living in malaria-affected areas may spend up to 25% of its annual income on prevention and treatment of malaria.



Mozambique: Insecticide Treated Bed Nets make Business Sense



Expanding company's distribution and sales

It is never easy paying off a loan but getting malaria just makes it worse.

A group of rural women complained that they could not pay back the money they borrowed because they had lost too many working days due to malaria. It was probably true. Malaria is

endemic in Mozambique, responsible for 40% of all outpatient consultations.

The microfinance company, the former Menomite Economic Development Agency (MEDA), responded by issuing vouchers to the women to buy insecticide treated nets (ITNs) as part of their credit; that was the first direct contact with the private sector for Nelson Nkini, the managing director of Proserv, a family-run private company. He sold the nets to the women, who were willing customers.

Nelson Nkini
managing director of
Proserv talks to one
of his net vendors





It was this experience that gave Nkini the idea to expand his company's distribution and sale of bed nets, not only to NGOs, who he was already supplying, but also to shops. It has proved successful both for him, the retailers and undoubtedly the customers who have bought cost effective protection against malaria, which is the main cause of death for children in Mozambique and is responsible for many days of sick leave.

Yet as with all successes, it has meant persistence on Nkini's part. "It was not easy to convince retailers, as they always want products that they already know are fast moving and cheap," he says.

He acknowledges the key role Malaria Consortium played in his success. The international organization supports Proserv and other companies to distribute ITNs in the private sector as part of a five-year programme, ending May 2010. The aim of the programme, which is funded by the British Department for International Development (DFID), is to develop a sustainable market for ITNs, as well as distributing them free to pregnant women through the public service. Malaria is especially dangerous for pregnant women, as it can cause

potentially fatal anaemia. It also increases the chance of a miscarriage or an under weight baby.

The private companies, Proserv, and more recently Agrifocus and Vestergaard-Frandsen in collaboration with Moçambique Distribuição e Serviços Ltd take part in the programme's goal to distribute over 220,000 ITNs through the private sector in Mozambique.

Public Sector and Private Sector Complementing Each Other

Malaria Country Director, Kate Brownlow, says that the public and private distribution complement each other. "The public sector is very important, especially as a safety net for those who cannot afford to buy. But I am convinced that the commercial sector has a role, the demand is there and there are people who have the purchasing power."

The companies will look at different markets; for example, Agrifocus, aims to incorporate the nets in their agriculture products package, which is provided to farmers on credit until they harvest.



Mozambique: Insecticide Treated Bed Nets make Business Sense

“Such healthy competition among the companies will be good for the future when Malaria Consortium has to phase out its support. The aim is also to develop the national structure sufficiently so there is not only a sustainable distribution but organizations will even be able to procure bed nets locally,” adds Brownlow.

To kick-start the private sector development Malaria Consortium advances the companies money to buy the initial batch of nets. A second component of the support to the private sector is the price support, to allow a reduction of the retail price to consumers; the support amounts to 1,25 \$ for an ITN and 2,50\$ for a LLIN. The companies also receive a marketing subsidy of 70% of an agreed fixed amount during the first year, and 50% in the second year, and support for distribution costs.

Nkini says the support for marketing was key. “We needed to change people’s mentality so they choose to spend money on a net instead of something else.” Proserv used a range of marketing techniques, including radio spots, pamphlets and it hired Ndyoko, a youth group, which put on cultural activities in schools and markets. “It is crucial that people know the importance of the bed net, so that they value them and use them,” says Nkini.



Proserve has 14 barracas (market stalls) and a shop in Maputo and Nampula as well as a dynamic network of street vendors. The street vendors have received training on basic market skills and information about the importance of using nets to fight malaria. "They were taught about what they were selling, so that they knew how to convince the buyer," says Nkini. "At first the vendors were asking for 5 nets to sell in a

day but now they want 150 each day." They sell at 120 Meticaís (less than five dollars) each."

The two Proserv shops offer more variety than the street vendors, selling nets of all sizes, and different materials and colours, ranging in price from 150 Meticias to 1,200 Meticaís. "The tourists and the larger organizations like the expensive ones because they are made of pure cotton and are cooler," explains Sarifa Badura, who sells at the shop in the capital, Maputo.

Rural Areas are Challenge

The main challenge now is to reach the more remote rural areas. Roads are poor, most people live in sparsely populated homesteads and they only congregate for market days a couple of days a week in some areas. Moreover, adds Nkini, "there are no banks, so the people selling the nets have to travel with a lot of money. You need to trust them."

Yet, the hard to reach people are a top priority. "Malaria Consortium is offering additional incentives for innovative ideas to reach the more remote rural areas," says Brownlow.



Street Vendors convince clients nets are essential items

Widow uses all her savings to buy net

Joaquina Muaciganno, a widow with five children, has been saving the little money she gets from selling fish to buy insecticide treated bed nets. "This one is for me," she says admiring the net she is about to buy from the street vendor in the heart of the city of Nampula in the north of the country. "Last month, I bought a net for my children. Now all my savings have gone."

The net cost 100 Meticaais, just a little less than 4 dollars. It is a lot of money for Muaciganno, but she says it is money worth spending. Just before she bought the children's net, her 10-year-old daughter, Benildine, got malaria. "She was very sick," says Muaciganno, who is also aware she cannot afford to fall sick herself. It is already a struggle when she is in the best

of health to care for her five children, aged between 7 and 14 years, who depend solely on her for their survival. Besides the serious harm malaria can do to her health, she would be too ill to work for about four days losing much needed earnings. She would also have to pay money for transport to reach the health post.

Muaciganno is in a similar predicament to most Mozambicans. Malaria significantly reduces productivity in one of the world's poorest countries and is responsible for 40% of all outpatient consultations. Pregnant women are especially vulnerable and so are children under five years old. Malaria accounts for 35% of all child hospital deaths under the age of five years.

ITNs save lives

Most of these deaths could be prevented, and earnings lost to malaria saved by the simple act of sleeping under an insecticide treated bed net (ITN). The mosquito that carries malaria generally bites late at night. The net provides a physical barrier and prevents the mosquito from biting the person under the net. The chemical, while safe for humans, at least repels the mosquito, or can kill it if the quality of the insecticide is good and the amount ingested sufficient, gradually reducing the mosquito population.

The government considers malaria control a top priority. Ongoing free net distribution to

Fernando da Costa
selling nets to people in
the street





Joaquina Muaciganno

pregnant women has undoubtedly saved lives of many women and their babies. But it does not cater for all in need, so others, like Muaciganno need to buy them.

In the recent past that would have been difficult. In 2005, there were no major net distributors in the country. The few nets that made it to the markets, came from neighbouring Tanzania and Malawi.

However, a project supported by the Malaria Consortium, with funds from DFID, assists the private sector to distribute and set up a sustainable network to sell affordable nets. By March 2007 there were three commercial partners supplying insecticide treated nets with support from the programme.

Quality nets available in market

Quality treated nets are now widely available at affordable prices in the city of Nampula and even in some of the more remote rural areas of the province. An estimated 43,000 nets had been sold in Nampula by the end of February, says Brighton Masaki, a representative of a local distribution company, Proserv, based in Nampula.

The aim of the DFID-supported five-year programme is to support the sale of 200,000 ITNs in the private sector countrywide by

November 2007. By the end of February 2007, some 122,000 nets were sold, the majority of them in the populous Nampula province.

The street vendors in Nampula, most of whom are poor and have had little formal education, have played a major part in the successful sales record, says Masaki. They have tapped into a vibrant market and moreover have become expert sales people. The street vendors received training facilitated by Malaria Consortium, which included business tips, such as how to persuade your customers, explanations about the why the net is being sold and how to use it.

The vendors took up the challenge and have not looked back. "There has not been one vendor that has stopped selling the nets. What I have seen is that they keep demanding even more nets to sell and are expanding their sales areas," says Vasconcelas Mario, the programme officer for Malaria Consortium in Nampula.

Reaching remote rural areas

Fernando da Costa is one of the vendors who benefitted from the training and is expanding his sales into the remote areas. He did not need much convincing about why nets are important. His four-year-old son, Fernando Junior, was admitted into intensive care last year with life-threatening convulsions caused by malaria. "I



Street Vendors convince clients nets are essential items

was shocked. After that I bought a net, and Proserv asked me to sell for them.”

Da Costa is one of Proserv’s most valuable vendors because most of his sales are in the remote rural areas. His wife works in Lalaua district some 280 kilometres away, so when he visits her he takes a supply of nets to sell on the way. In one month he sells around 375 nets in the rural areas and about 125 in Nampula city.

He concedes it is tough. “I travel long distances on very bad dirt roads sitting on the back of trucks. Last Sunday I started waiting at 6am for

the Chapa (an open public truck) to Nampula. It only came at 3pm, it rained, I got wet and I only arrived after 2am the next day. I have to leave Fernando, who lives with me, with relatives while I am away.”

But he says it is worth it. Besides seeing his wife, he is doing good business. “The demand for the nets is even greater in the countryside than in the city,” adds da Costa.

The reason for the success is simple. Although Mozambique is one of the world’s poorest countries, with most rural people depending on subsistence farming, they are beginning to see the nets as an essential item. “Our message is to tell people how important it is to use a bed net every night, and preferably a long lasting impregnated one. The insecticide used on those kill the mosquito, they do not need retreatment, even if washed regularly, as the product remains active up to 20 washes,” says Mario of Malaria Consortium.

Muaciganno, the widow, is one of those who sees the net as an essential item. She is now beginning to save more money to buy another net. “It is a squash for all five children to sleep on the mats just under one net,” she says. “When I have saved more money, I will buy another one. I need it.”

Fernando da Costa
with Fernando Junior
who recovered from
severe malaria

