

# Integration of malaria prevention into HIV programming:

## the World Vision Zambia experience

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In 2004, as lead of a consortium of six major organisations,<sup>1</sup> World Vision was awarded US\$27 million by the United States Agency for International Development (USAID) to implement the RAPIDS (Reaching HIV and AIDS Affected People with Integrated Development and Support) programme. The programme focuses on mitigating the impact of HIV on orphans and vulnerable children (OVC) and providing home-based care to people living with HIV/AIDS as well as further support to other vulnerable groups. It was implemented by community caregivers as the frontline response.

As caregivers went to visit home-based care clients, they found that a good number of people living with HIV were also suffering from malaria, negatively affecting their quality of life. Malaria is one of the major opportunistic infections affecting people living with HIV/AIDS and there is a recognised relationship between the two diseases: those who are HIV-positive are susceptible to also contracting malaria as their immune system has been weakened; and conversely those with malaria can more easily catch HIV (see Box 1).

Malaria is a major public health problem in Zambia. Currently, a comprehensive malaria control and prevention approach is being implemented in the country that includes indoor residual spraying (IRS), insecticide treated mosquito nets (ITNs), intermittent preventive treatment in pregnancy (IPTp), larviciding and case management. These efforts have resulted in the prevalence of malaria declining in some places. In spite of these achievements, however, Luapula, Northern and Eastern provinces still experience high malaria prevalence (Ministry of Health, 2010). A rise in the incidence in Luapula Province was attributed mainly to the long period since the last ITN distribution.

### Partnerships for tackling malaria resurgence

A partnership with the Global Business Coalition, the US President's Emergency Plan for AIDS Relief (PEPFAR) and the Presidential Malaria Initiative of the US Government enabled the RAPIDS programme to distribute 485,000 ITNs. Another partnership saw the donation of 300,000 ITNs from the Against Malaria Foundation. These nets were distributed using a targeted approach, being taken door-to-door to those households that contained beneficiaries of the RAPIDS programme. This was done in consultation with the Ministry of Health/National Malaria Control Centre (NMCC).

The Ministry of Health/NMCC also received a donation of 1 million long lasting insecticidal nets (LLINs) in March 2011 from the UK

Department for International Development (DFID) through USAID to be distributed universally to households in all the seven districts of Luapula Province (Milenge, Samfya, Mansa, Mwense, Kawambwa, Nchelenge and Chiengi) and two districts in Eastern province (Lundazi and Chadiza).

STEPS-OVC,<sup>2</sup> a USAID-funded consortium of seven non-governmental organisations (NGOs) led by World Vision, was given the opportunity to include the distribution of these LLINs into their overall programming and cooperative agreement. STEPS-OVC partnered with the Ministry of Health/District Health Management Teams in the districts to conduct the distribution. The approach was centred on the theme of universal coverage, which targeted all sleeping spaces in all households using a door-to-door approach.

The funding of the current LLIN distribution project demonstrates the importance of strategic partnerships between cooperating agencies. This programme used the PEPFAR-supported distribution infrastructure, which reduced the cost of distributing ITNs substantially. Two staff members were recruited for the duration of the distribution programme to dedicate their full attention to ensuring that the almost 1 million nets were distributed within eight months. Salaries and other costs of supervision and support staff were not covered in full by the distribution funding as they were already supported by the PEPFAR grant, which provided for savings. It is anticipated that about 45 per cent of the initial funds

### Box 1

#### Malaria and HIV: dual infection and treatment

Malaria and HIV-1 are two of the most common infections in sub-Saharan Africa. Malaria has been associated with a rise in HIV viral load and a fall in CD4-cell count, potentially worsening the clinical course of people with HIV infection. Malaria also seems to be more common and more severe in HIV-infected adults, pregnant women and children than in people without the virus. Prevention of malaria in HIV-infected people living in endemic areas is increasingly regarded as a part of basic HIV care.

Prophylaxis with co-trimoxazole (trimethoprim and sulfamethoxazole) can reduce the incidence of malaria, as well as mortality, in HIV-infected people in Africa and is recommended by the World Health Organization. Insecticide-treated bednets also reduce the incidence of malaria and associated morbidity in children and pregnant women.

Source: Mermin, J. et al., 2006.



Bednets packaged for sale.

## Box 2

### Combining co-trimoxazole prophylaxis, ART and ITNs reduces malaria in HIV-infected adults

Results from a 2006 study in Uganda suggest that:

- A combination of co-trimoxazole, antiretroviral therapy and insecticide-treated bednets was associated with a 95 per cent fall in the frequency of malaria from 50.8 to 2.1 episodes per 100 person-years in HIV-infected adults.
- The addition of ART to a cohort of HIV-infected people already receiving co-trimoxazole prophylaxis was associated with a 64 per cent fall in malaria incidence.
- The magnitude of malaria reduction associated with ART supports a link between the immunosuppressive effects of HIV and vulnerability to malaria.
- The potential efficacy of protease inhibitors against plasmodium might further reduce malaria risk for people already taking cotrimoxazole prophylaxis and ART regimens that do not include protease inhibitors, but the number needed to treat or to prevent a case of malaria would be high.
- ART treatment can take more than a year to achieve its full effect on the immune system.

Source: Mermin, J. et al., 2006.

will be saved. Other savings were made on transportation and storage costs. Government-owned storage spaces were utilised at national and district levels. Transport was provided by World Vision trucks that were donated by a private corporation in the United States, HASBRO Inc., and the only expenses were in relation to fuel and costs of the drivers. In areas where trucks could not get through because of swamps or rivers, the Ministries of Defense (Zambia National Service), Education and Health contributed boats to the exercise.

In addition, Communications Support for Health (CSH), a USAID-funded programme, took on the role of informing the community through the local media of the universal coverage ITN distribution exercise and the importance of the use of the ITNs. They covered the costs of this, providing further savings to the distribution programme.

## The importance of community involvement

Community involvement was vital for the programme to succeed. Community volunteers distributed the nets in the districts through a door-to-door programme, covering all bed spaces. In previous World Vision ITN distribution programmes, ITNs were targeted at HIV-affected households: those with OVCs and people living with HIV/AIDS. This targeted distribution brought about disunity in communities as well as stigma for those who were receiving nets. With the availability of ITNs and following global guidance, it was decided to aim for universal coverage as all people in a community can suffer from malaria, which has negative effects on both the community and national development.

Malaria Task Forces were created that included all health sector stakeholders in a district: government ministries including Education, Defense, Community Development and Social Services and NGOs such as World Vision, Africare, Catholic Relief Services, Lutheran Foundation, the Anglican Church and CSH. Traditional and other community leaders were engaged from the onset of the programme during orientation meetings so that they encouraged the community members to use the nets in the right way.

The actual distribution of nets was conducted by community volunteers who were primarily mobilised to conduct home-based care and other HIV-related care at community level. They were trained by the Malaria Focal Point persons in the District Health Management Boards in the 10 districts.

## Government leadership and coordination

The ownership of the ITNs by the Government was established by the hand-over of the nets from DFID and USAID to the Minister of Health and not World Vision, even though the funding was given to World Vision for the distribution. From the onset of the programme, the Ministry of Health provided needed leadership, as projects like this one have a short time frame and continuous monitoring of the usage of the ITNs is important. The Government's involvement, through the responsible ministry, will ensure that the distribution and usage of the nets are monitored. The central role taken by the government has been critical to the effectiveness of the programme and the coordinated approach.

World Vision provides periodic progress reports to the Ministry of Health through the NMCC. The NMCC has thematic groups – information, education and communication (IEC), ITN, IRS and others – whose membership includes private companies working towards malaria prevention. The Government has embraced these partnerships, providing leadership and annual plans that are developed with stakeholders, ensuring that there is one plan being implemented by various players to enhance harmonisation and monitoring. All stakeholders are also providing reports to one coordinating body for malaria prevention, the NMCC, so the Centre is aware of what is happening and can monitor progress through various impact studies.

## Recommendations

- Monitoring of usage of the ITNs needs strengthening.
- Nets need to be replaced within a reasonable timeframe to prevent recurrence.
- Monitoring and evaluation tools and systems need to capture the impact of HIV programming integrated with malaria prevention.

## References

Mermin, J. et al. (2006). Effect of co-trimoxazole prophylaxis, antiretroviral therapy, and insecticide-treated bednets on the frequency of malaria in HIV-1-infected adults in Uganda: a prospective cohort study. *Lancet*, 367: 1256–61.

Ministry of Health (2010). Zambia national malaria indicator survey 2010. Lusaka. Available at <http://nmcc.org.zm/>

## Endnotes

<sup>1</sup> The other organisations were Africare, CARE International, Catholic Relief Services, Expanded Church Response and the Salvation Army.

<sup>2</sup> Sustainability Through Economic Strengthening, Prevention and Support for Orphans and Vulnerable Children, Youth and Other Vulnerable Populations.

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