Malaria fight sees decade of progress with pitfalls ahead

By Elizabeth Blunt 3 March 2014 IRIN

Photo: UNHCR/F.Noy Safe for now, but sustaining the effort key

LONDON, 3 March 2014 (IRIN) - A lot can change in a decade. Back in 2003, many countries still relied on the increasingly ineffective chloroquine to treat malaria. Malaria testing was a job for lab technicians with microscopes, and treatment was left to professionals. And public health officials were smarting from their failure to eradicate the disease in the 1950s and 60s.

Ten years later, the field looks very different, in large part because ample funding is now available, from the Global Fund, the President's Malaria Initiative (a US government programme) and the Bill and Melinda Gates Foundation. Artemisinin-based combination therapies (ACTs) have replaced chloroquine, proving reliable and effective. Rapid diagnostic tests have brought testing and treatment down to the community level. Many millions of bed nets have been distributed. And elimination of the disease is back on the agenda.

“The news is exceptionally good,” said Desmond Chavasse, who is responsible for the malaria and child survival programme at Population Services International. “We have a one-third reduction in incidence and a halving of malaria child mortality since 2000. In sub-Saharan Africa, about 42 percent of people now have access to treated mosquito nets, so some really fantastic progress there.”

But there has been one serious change for the worse. ACTs - which have underpinned this success - have stopped working in areas around the Thailand-Cambodia border, an area where drug resistance often first appears. So far, the resistant strains have been contained, but Chavasse warns that the recent successes are “exceptionally fragile”.

“Resistance will get us in the end,” he said, “whether it is insecticide or drug resistance, so we

need an elimination goal, and that means we have to do different things, we can't just do more of the same."

Chavasse was speaking at an event in London to mark 10 years of work by the Malaria Consortium, which was founded in 2003 by teams from the London and Liverpool schools of tropical medicine. At the half-day meeting, debate focused on some of the issues that remain unresolved today: the proper use of volunteers to diagnose and treat malaria in the community, the best way to work with the private sector, and concerns surrounding drug resistance and elimination.

A thankless job

The Consortium has worked a lot with community volunteers, which Nichola Cadge, a health advisor on malaria at the UK's Department for International Development (DFID), says is essential because there is no way government health staff can fight malaria on their own.

"We all know that human resources are the biggest expenditure of any health system," she said. "We all know that the greatest proportion of people with fever treat themselves at the community level, and we all know that there aren't enough fixed-point facilities to provide care for all. So there is a big role for community health workers to play... But I do feel sorry for them. We are pretty demanding. We ask them to do so much, with often very little incentive."

Some speakers suggested that use of volunteers should be seen as a stopgap measure, with curative work being handed back to professionals when health systems are stronger.

Franco Pagnoni, from the World Health Organization's (WHO) Global Malaria Programme, disagrees. "If we move towards paid cadres, we would miss the key element of community case management, which is having a member of the community, who lives next door, providing the treatment, someone who the mother can easily approach and talk to. But we do run the risk of overburdening volunteers with more and more tasks. And nobody now, in 2014, is ready to work for a T-shirt."

The publication marking the Consortium's anniversary tells the story of a community volunteer in Uganda, Katusabe Beatrice, who administered a rapid diagnostic test on a sick girl. She told the mother - correctly - that malaria was not the problem. Malaria drugs would not help, Beatrice said, and the girl should be taken to a clinic.

"Because she didn't trust me, she went to the drug shop, bought the wrong drugs, and the child died," Beatrice said.

The story shows not only that being a volunteer can be a thankless task, but that the private sector also needs incentives to do the right thing.

The private sector

Said Pagnoni, "We cannot go large scale without the private sector... but we need to find a way to involve the private sector and, at the same time, assure quality. We need to understand the different motivations that drive the private vendor. He is not a volunteer and he never wanted to

be a volunteer. He needs to earn money for his family. We need to balance that with our needs. This is not just about dishing out drugs; it is about managing a sick child."

Working with the private sector is also an issue in the distribution of bed nets. Mass distributions are needed to get people using the nets, but handing out millions of free nets could destroy the commercial market, which is also needed to replace nets as they wear out.

Kolawole Maxwell, who manages the Consortium's office in Nigeria, told IRIN about his efforts to get mosquito net distributors to see the opportunities created by mass distribution.

"I told them they had to think like entrepreneurs, and see what other products they could offer. There might be a demand for treated window screens, or nets in different colours or to fit different kinds of beds. Or even Mickey Mouse nets for children - why not?" he said.

"As countries find malaria is much less of a burden than it used to be, and there's a lot of competition for resources, they won't be able to maintain the intensity of action that is needed for elimination, and they will be winding down just at the time when you need to be winding up." "But when they went to the manufacturers in Asia, they weren't interested in small orders. Now, we have just had a breakthrough, with one of the big manufacturers agreeing to provide quality assurance for nets manufactured in Nigeria. So we hope that having a WHOPES [WHO Pesticide Evaluation Scheme]-approved manufacturer in-country will help develop the local market."

The fight in Cambodia

Malaria elimination is a particularly major issue in Cambodia because of the emergence of artemisinin resistance there. The race is on to try to stamp out the resistant strain before it spreads to the rest of the world. Containment will only work in the short term; elimination is the only sure way to preserve drug's the effectiveness.

But there are many challenges.

Health workers need to log every confirmed case of malaria. In Cambodia, the tracking is being done with a mobile phone app, which is working well, but while this method helps record all cases in public health facilities, health officials cannot be sure they have records of all patients seeking private treatment.

Testing has a revealed a high number of people with very low levels of the parasite in their blood. Do they, too, need to be treated? No one is sure. Perhaps not in Cambodia where the vectors - forest-dwelling mosquitoes - are relatively few. It would be different in Africa, where malaria-carrying mosquitoes are everywhere.

And finally, there is the issue of sustaining efforts. Malaria is already less of a problem in Cambodia than it was, and it is far less of a problem now than dengue fever. This is the moment when enthusiasm can flag, volunteers may lose interest and funding tends to dry up.

“These programmes are not straightforward,” said Simon Brooker of the London School of Hygiene and Tropical Medicine, “And we need to be able to fund them over a long period of time. In fact, it is the last mile which is the most difficult part, and it's very hard to persuade funders to keep on funding a programme when you have nearly eliminated the disease.”

The Consortium's technical director, Sylvia Meek, says the key is good advocacy, especially at the country level, even when the burden of malaria is declining. “There's a real concern,” she said, “that as countries find malaria is much less of a burden than it used to be, and there's a lot of competition for resources, that they won't be able to maintain the intensity of action that is needed for elimination, and they will be winding down just at the time when you need to be winding up.”