

Roll Back Malaria

A mosquito-borne disease, malaria affects 247 million people each year, most of them in Africa and Asia. Each year, about a million people die needlessly – 85 per cent of them children under five – from this largely preventable, curable affliction. While a concerted effort is now bringing hope to the most vulnerable, Canadians like Rick Mercer are urging more support.

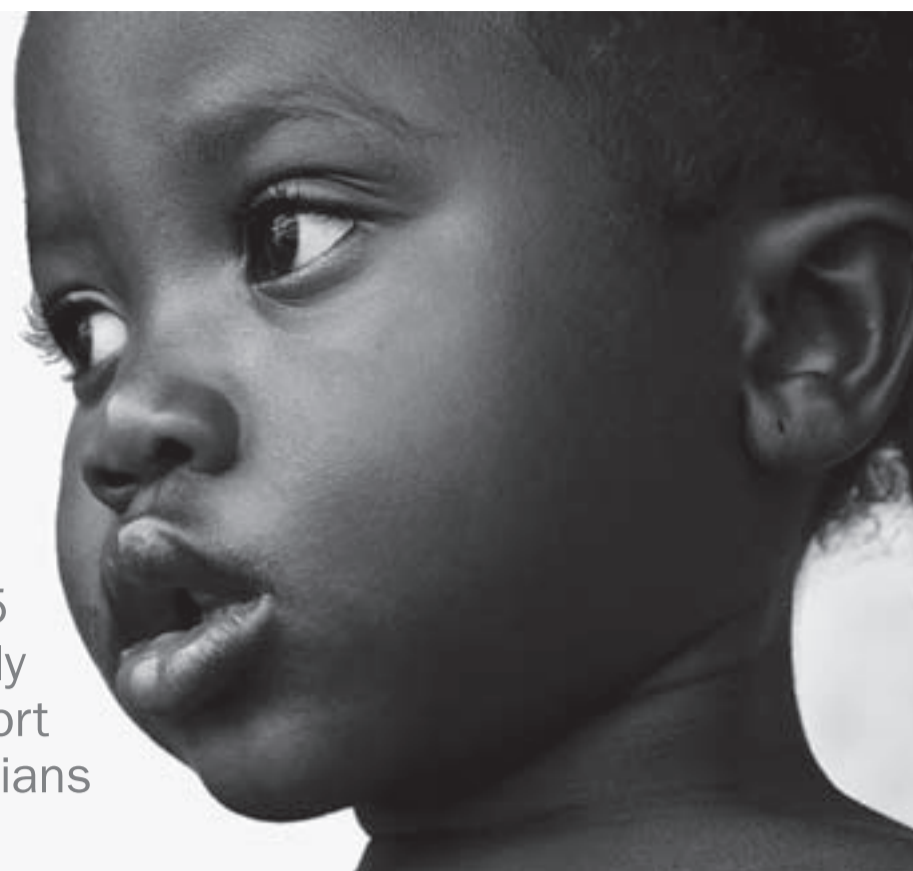


PHOTO: ISTOCKPHOTO.COM

A human tragedy of epic proportion, malaria also takes an enormous economic toll on the most vulnerable countries. According to the Roll Back Malaria (RBM) Partnership, a global framework of more than 500 partners, founded in 1998 by WHO, UNICEF, UNDP and the World Bank, the direct economic cost of malaria is \$12 billion US each year.

Starting as a small project within the UN, Roll Back Malaria has become a global movement of NGOs, private sector organizations, academia, foundations, donor countries, and more important, the endemic countries themselves. "This framework helps all the partners work in a co-ordinated way," says Professor Awa Coll-Seck, executive director. "There has been a harmonization of strategies; we all work together."

Roll Back Malaria's partners have achieved heartening success through concerted effort. In Eritrea, Rwanda, and Sao Tome and Principe, for example, the number of cases and deaths declined by 50 per cent or more between 2000 and 2007. "By 2015, our target is to have near-zero deaths, and beyond that, we want to eliminate and then eradicate malaria," says Professor Coll-Seck.

"This is a solvable problem," says Dr. Renee Van de Weerd, UNICEF Chief of Maternal, Newborn and Child Health. "We have proven interventions that can be replicated for huge impact on com-



Professor Awa Coll-Seck says the Roll Back Malaria Partnership's goal is to reduce malaria-related deaths to near-zero levels by 2015, and beyond that "to eliminate and then eradicate malaria." PHOTO: SUPPLIED

munities and families. We have the tools to help even the most fragile, difficult countries."

Canada continues to play an important leadership role in this effort. In 2007, Prime Minister Stephen Harper announced an investment of more than \$100 million in a

partnership with UNICEF, the Bill and Melinda Gates Foundation, the World Health Organization, the World Bank and other donor countries, known as the Catalytic Initiative to Save a Million Lives.

Through its Catalytic Initiative-funded Child Survival Program in Ethiopia, Ghana,

Malawi, Mali, Mozambique and Niger for example, UNICEF and its governments and partners have trained more than 25,000 community health workers to diagnose and treat malaria, pneumonia and diarrhea. Through integrated campaigns, they also distribute insecticide-treated bed nets, measles vaccine, deworming tablets and vitamin A, and ensure pregnant women get antenatal care and essential micronutrients.

While policy leadership is essential, Spread the Net, a Canadian organization founded by former MP Belinda Stronach and famed comedian Rick Mercer, is an example of the power Canadian citizens have to make a difference.

"I interviewed Belinda

Stronach for my show, and off camera, she told me about the work of economist Jeffrey Sachs. A few months later, we were in Africa," says Mr. Mercer. "I told her before we left that I would not come back as one of those people on TV who doesn't shut up about Africa, but of course, that's what I've become."

The turning point was a visit to two villages in Ethiopia. In one, "corn was growing, there was a school, children were healthy and there was a small economy," he says. In the second village, not far away, "there was no economy, no food growing, few children. The village had no soul, because the children were dying. People were clearly sick."

Professor Sachs explained the difference between these two villages: the first had access to bed nets; the second did not.

Since then, in partnership with UNICEF, Spread the Net has collected donations for almost 490,000 nets, many of them funded by children and students. "We are very fortunate to live in a country where most people can wrap their heads around spending \$10, and that is all it takes. Ten dollars doesn't only save one life – in most of these villages, two or three children will sleep under a bed net," says Mr. Mercer.

To continue this successful intervention, further funding is urgently needed. "We've made great progress, but as the leaders of the G8 gather this year in Canada, we urge them to meet their financial commitments to these programs. Global financing has increased to about \$2 billion US per year, but we need about \$6 billion. We have an opportunity to control this terrible disease. If it isn't eliminated, it comes back very quickly," says Dr. Van de Weerd.

"We must ensure that global leaders recognize that reducing the burden of malaria is an effective way of resolving other problems such as maternal mortality, child mortality and poverty," says Professor Coll-Seck. "If you want to help countries develop, you need to continue to fund the fight against malaria, because we know that malaria can be beaten." ■

World Malaria Day – act now

April 25 is a day of unified commemoration of the global effort to provide effective control of malaria around the world.

This year's World Malaria Day marks a critical moment in time. The international malaria community has less than a year to meet the 2010 targets of delivering effective and affordable protection and treatment to all people at risk of malaria, as called for by UN Secretary-General Ban Ki-Moon.

World Malaria Day represents a chance for everyone to make a difference. Whether it's a government, a company, a charity or an individual, all can roll back malaria and help generate broad gains in multiple areas of health and human development.

Reducing the impact of malaria would significant-

ly propel efforts to achieve the Millennium Development Goals, agreed by every United Nations member state. These include not only the goal of combatting the disease itself, but also goals related to women's and children's rights and health, access to education and the reduction of extreme poverty.

Hundreds of Roll Back Malaria partners – governments, international organizations, companies, academic and research institutions, foundations, NGOs and individuals – are already gaining ground against malaria. Diverse partner initiatives are guided by a single strategy, outlined in the Global Malaria Action Plan. Join the effort.

Learn how you can support Roll Back Malaria at rollbackmalaria.org.

Canadian pharma workers take up malaria fight overseas

In 2009, Mike Lazarovits, a manager at Novartis Pharmaceuticals Canada, travelled to Tanzania to help make life-saving malaria treatment available when needed, even in the most remote regions.

The program that made his work possible is part of the company's many efforts to make medicines available to people in developing coun-

tries and a key element of its overall social responsibility strategy.

The Novartis Access to Medicines programs reached over 79 million patients globally in 2009, providing medicines valued at \$1.5 billion US to people who wouldn't otherwise have been able to afford them. In the developing world, Novartis provides leprosy, tuberculosis, cancer and

antimalarial treatments through partnerships with local and international NGOs.

Coartem, a combination treatment for malaria, provides a cure for 95 per cent of the patients even in areas of multi-drug resistance, says Tom Rossi, president and CEO of Novartis Pharmaceuticals Canada. "So far, we've provided 300 million treatments and helped to save the

lives of about 750,000 people with malaria in sub-Saharan Africa and parts of Asia."

"We are very proud of our Access to Medicines program and, in particular, the Novartis Malaria Initiative. It is an important way for us to give back to society. At Novartis, we want to create value for all patients, including those who cannot afford treatments," says Mr. Rossi. "The fact that Novartis is ranked among the top four World's Most Ethical Companies in the biotech and pharma sector by Ethisphere, and by Fortune Magazine as third among the World's Most admired pharmaceutical companies, means that we are on the right track."

As an extension of its Global Social Responsibility program, Novartis Pharmaceuticals Canada pays the expenses of an employee who volunteers his or her vacation time to participate in a social responsibility mission in a developing country and shares the experience with fellow



Through Novartis Access to Medicines programs, employee Mike Lazarovits of Novartis and others helped contribute \$1.5 billion of medicines to people in developing nations. Pictured above, Mr. Lazarovits demonstrates SMS phone technology that enables local health workers to automatically order supplies. PHOTO: SUPPLIED

employees and other audiences upon their return.

SMS for Life, the program that Mr. Lazarovits participated in, is a public-private partnership of Roll Back Malaria, Novartis, Vodaphone, IBM and local health organizations. "Our mandate was simple – to help people get the medication they need when they need it," says Mr. Lazarovits. "Coartem provides a very high cure rate – the challenge is ensuring it is available. In Tanzania, there are about 5,000 individual health posts, and as many as half of them could be out of stock at a given time."

Through the SMS for Life website, stock levels at health facilities are uploaded using text messaging, and reports are produced for regional authorities and the Ministry of

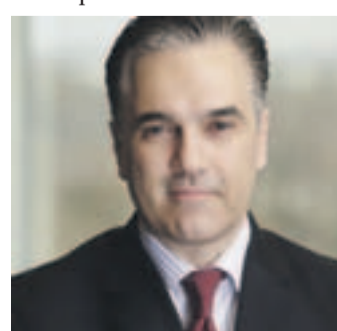
Health. "This triggers quick action so stock can be shipped where it's needed," says Mr. Lazarovits, noting that he trained 75 health facility workers during his visit. "I also met many malaria patients, knowing that with treatment, they would experience a positive, healthy outcome."

Sharing his experience with other Novartis employees has also been a rewarding experience, says Mr. Lazarovits. "I am proud of my employer for believing each one of us can make a real difference, and the response from my fellow employees has been outstanding. It's motivated them to think about other ways they can make a difference, abroad or in their own communities, and created a new awareness of the importance of the work we do." ■

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MALARIABITES.NET Canadian Red Cross



Tom Rossi, president and CEO of Novartis Pharmaceuticals Canada, says the company has provided 300 million malaria treatments. PHOTO: SUPPLIED

Despite odds, non-profit medical group making strides against malaria

Medicines for Malaria Venture (MMV) is a non-profit foundation created to discover, develop and deliver new, affordable anti-malarial drugs through public-private partnerships. **Dr. Tim Wells**, Chief Scientific Officer, explains the group's potentially life-saving work.

What is the difference between the original goal of "malaria control" and the newer concept of "malaria eradication"?

Control refers to treating the individual patient, making the patient well; eradication is concerned with also stopping the transfer of the parasite between persons. Each infected person will transmit the disease to a number of others. If we can lower this transmission, malaria will disappear. Not all forms of the parasite are transferred. We can use knowledge of the parasite's life cycle to block transmission, instead of worrying only about healing individual patients. A decade ago, the concern was "Will this drug cure the patient?" Now it's also "Will this drug block transmission of the infection to others?"

What can public-private product development partnerships (PDPs) such as MMV contribute to the goal of malaria eradication?

We bring new medicines to the patient. In 2006, the World Health Organization said the standard of care had to become artemisinin combination therapy (ACT). Artemisinin works really fast so patients feel better in about 18 hours. But it doesn't kill the parasite's infectious ability. If patients need to take multiple drugs in several pills, they will stop taking them as



soon as they feel better, so combining the drugs into one pill makes more sense. We've developed a combination medication and are working

on others. The idea is to develop the single dose cure. PDPs bring together money and intelligence from governments, foundations and the academic community as well as the crucial involvement of the pharmaceutical industry, with whom 90 per cent of development is done.

What can research organizations like MMV do to keep drug resistance at bay?

We need to keep focused on producing the next genera-

tion of drugs. We currently have two drugs in clinical trials with patients that are as effective as ACTs and active in the resistant forms of malaria. We also need drugs that target the relapsing form of malaria, P.vivax. It is more common in Southeast Asia and South America and doesn't kill nearly as many people as the P.falciparum form found in Africa. But the fact that the parasite can sleep in the patient's liver for a month to a year before becoming active again means we need

medications that target these dormant liver-stage forms. Nobody works on it, as it kills "only" 100,000 people a year. But to eradicate malaria, this must be addressed.

What would happen if the flow of funds to malaria drug research and development were stopped?

It would obviously slow down the development of new drugs. As resistance to currently used medications spreads, we wouldn't have new drugs to deal with this. It

takes 12 to 15 years to move from concept to implementation with a new medication. All the gains we've made over the past 15 years would be at risk. Deaths worldwide are about 850,000 [each year] now, but they were one to three million 15 years ago. New drugs are not the sole reason for this drop. But it's clear that without ongoing R&D funding, many more people will die.

For more information, please visit mmv.org.

Malaria bites

Since 2003, the Canadian Red Cross has delivered more than 2.5 million free mosquito nets in six countries in Africa. Today, they're expanding Malaria Bites, a campaign aimed at enlisting Canadians to help continue this lifesaving work.

In addition to distributing nets to children under five, the Canadian Red Cross will be supporting rapid diagnostic testing and treatment options, providing malaria medication to pregnant women and supporting families in producing clean water.

In early April, the Canadian

Red Cross, Burundi Red Cross and Belgium Red Cross distributed over 521,000 mosquito nets in three provinces in

Burundi, and provided education about malaria, the importance of sleeping under a net and how to install the

nets properly.

Alison Frehlich, a communications co-ordinator with Red Cross Canada, says, "While I was in Burundi, I saw hundreds of smiling people, many of them young mothers with babies on their backs, waiting to receive their free nets."

Nediatrice, a woman who lost two babies before their first birthdays, told Ms. Frehlich how grateful she was to the Red Cross for her nets. "I am happy to know that she and her new baby Lydia now sleep protected under a net each night," says Ms. Frehlich.



Canadian Red Cross staffer Alison Frehlich helped deliver mosquito nets in Burundi as part of the agency's Malaria Bites initiative. PHOTO: SUPPLIED

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Giving Them Back Their Future

This year, 2,000 young children will die daily from malaria unless they receive treatment that can cure them. By developing new effective and affordable antimalarials, Medicines for Malaria Venture is working to give these children a better chance of survival.

Medicines for Malaria Venture (MMV), a leading public-private partnership, is dedicated to the discovery, development and delivery of innovative treatments for malaria.

Effective, high-quality medicines are an essential weapon, which, with preventive measures such as insecticide-treated bed nets, indoor-residual spraying and a future vaccine, will help to ultimately defeat malaria.

MMV has more than 130 partnerships in 44 countries, and now manages over 50 projects in the world's largest antimalarial research portfolio. Its research aims not only to treat malaria, but also to tackle emerging resistance and stop transmission of infection, with a view to eventual malaria eradication.

In early 2009, with Novartis, MMV launched its first product – a child-friendly antimalarial: Coartem® Dispersible. The registration of two more products is expected in 2011.

To ensure access to these new life-saving products MMV is helping to design and implement innovative strategies that will facilitate evidence based decision-making, make high-quality drugs affordable, and assess the use of new medicines.

MMV's work is possible thanks to the support of governments, foundations, corporations and individual donors. We are actively striving to expand and develop current and new donor partnerships, solicit more in-kind input from partners and build MMV's global network to achieve our mission.

Help us discover, develop and deliver new medicines that will cure and protect vulnerable children and neglected populations. Please contact Julia Engelking at engelkingj@mmv.org with any ideas or philanthropic investment queries.

MMV's vision is a world in which innovative medicines will cure and protect the vulnerable and under-served populations at risk of malaria, and help to ultimately eradicate this terrible disease. www.mmv.org | info@mmv.org

Defeating malaria together



Novartis is proud to be named one of the World's Most Ethical Companies by *Ethisphere*. This honour underscores our commitment to benefit society by operating in a socially, environmentally and economically responsible way.

Being a good corporate citizen means that we take on societal challenges in areas in which we are competent, helping where most needed while adhering to high ethical standards.



www.novartis.ca