

# To improve maternal and child health, focus on the neediest

*Conventional development interventions have not always been designed to reach the most vulnerable, but now an approach that targets those who are most in need is achieving positive results in terms of both health outcomes and cost-effectiveness*

By Anthony Lake,  
executive director,  
UNICEF

Last year at the G8 Muskoka Summit, the world's wealthiest countries committed to improving maternal, newborn and child health. To deliver on that promise – and to accelerate progress towards meeting virtually all of the Millennium Development Goals (MDGs) – investment should focus on reaching the poorest women and children.

There is a good reason why United Nations secretary-general Ban Ki-moon chose the UN Summit on the Millennium Development Goals to launch his Global Strategy for Women's and Children's Health. Women's and children's well-being is at the heart of the ability to meet virtually all of the development goals – and is a fundamental component in building stronger societies. Yet reducing maternal and neonatal mortality remains one of the toughest challenges.

The statistics are sobering. In developing countries and pockets of poverty around the world, hundreds of thousands of women still die unnecessarily every year from pregnancy- or childbirth-related causes. Of the more than eight million children under five who perish every year from mostly preventable causes, more than 40 per cent die in the first days of life; 1,000 newborns still become infected with HIV every day. Less than a third will receive the treatment they need to survive.

Just as disturbingly, disparities both among and within countries appear to be widening. A woman from one of the poorest countries in sub-Saharan Africa is 300 times more likely than a woman from a wealthy country to die from a

“ Since UNICEF started targeting vaccinations, 20 developing countries have virtually eliminated maternal and neonatal tetanus ”

cause related to pregnancy or childbirth. A child from the poorest quintile of a developing country is more than twice as likely as one from the richest quintile to die before reaching the age of five.

The human costs of these inequities are beyond calculation. The economic costs are also staggering, deepening the spiral of despair in the world's poorest places and greatly impeding economic growth. This mounting urgency drove the world's wealthiest countries to endorse the Muskoka Initiative at the 2010 G8 summit. Pledging an impressive \$5 billion in new funding over five years, G8 members are committed to improving services for women and children along the full continuum of care – from pre-pregnancy, pregnancy and childbirth through infancy and early childhood.

Such an integrated approach to health is a significant step forward. But to deliver on the Muskoka Initiative's full promise, these much-needed new funds must be invested to achieve the greatest impact in the lives of those in greatest need.

The first step should be to ask why there has been such limited progress thus far in the places that bear the greatest burden of the failure. The underlying, contributing conditions are undeniable: multiple, chronic deprivations that create a vicious cycle between poverty and poor maternal and child health.

However, the answer is less obvious. The poorest and most marginalised women and children often live too far away from health facilities to reach them in time – or to afford the services that they can provide. And conventional development interventions have not been designed to reach the most vulnerable.

At the same time, data collection and analysis to identify the neediest and measure progress are inadequate, further limiting efforts. Conventional solutions have been seen as too complicated and costly to deliver, and funding has focused on other priorities, from which the return on investment seems higher.

But things have changed. Today there is a much better understanding of what it takes to save the poorest women and their babies. New mobile technology and rapid diagnostic tests make it much easier to reach the people who were the hardest to reach. Primary-care strategies – such as training more skilled birth attendants – cost far less than building new hospitals or training more doctors, but



have the potential to significantly reduce maternal mortality in the places where women die in the greatest numbers.

At the same time, innovative financing mechanisms – conditional cash transfers to defray the costs of seeking medical care, for example, and new incentives to encourage health providers to treat the most disadvantaged – are expanding the access of more families to traditional clinics and hospitals. Simple ideas – such as “waiting homes” close to health facilities where rural pregnant women can stay before giving birth, and neonatal community care for at-risk newborns – are showing real promise.

Contrary to conventional wisdom, investing in such an equity-focused approach may actually be more, not less, cost-effective than the current path. A recent study shows that when it comes to reducing under-five mortality, every additional \$1 million invested in reaching the most deprived actually saves the lives of up to 60 per cent more children than does the current path. The modelling of the study, which analysed more than 180,000 data points in 15 countries, also strongly suggests that an equity-focused approach may also save the lives of more mothers.

In a time of competing priorities and budgetary pressure, one cannot ask for more money for women and children’s health unless it can be shown that there is better health for the money spent. That is exactly what an equity-focused approach can achieve – and is already achieving.

In the global effort to combat maternal and neonatal tetanus – a silent killer that strikes the poorest women and

**The use of equity-based approaches to tackling child health issues has led to a dramatic reduction in under-five mortality**

children, taking hundreds of thousands of lives every year – UNICEF and its partners began targeting vaccination campaigns to reach those at greatest risk. Consequently, annual neonatal tetanus deaths have dropped by more than 70 per cent, and 20 developing countries have virtually eliminated maternal and neonatal tetanus as a public health problem.

Recent initiatives in Bangladesh, Pakistan and India are proving that something as simple as increasing home visitation by trained community health workers can reduce neonatal deaths by up to 61 per cent in areas with limited access to traditional health facilities.

In high-burden countries such as Zimbabwe, Malawi, Rwanda and Lesotho, new efforts to decentralise HIV diagnosis and treatment – enabling women to be tested for HIV closer to home and authorising nurses to administer antiretroviral medicine to HIV-positive pregnant women – are already helping to save mothers’ lives and reduce transmission of HIV to their infants.

With less than five years left to achieve the MDGs, and with so many lives hanging in the balance, it is time to shift the focus – by investing in scaling up such promising efforts. The G8 countries have an unprecedented opportunity now, not only to accelerate global progress on maternal and child health, but to do so in a way that does not leave behind millions of the most vulnerable women and children. They should seize this chance. It is the right thing to do. And it is the practical thing to do. ♦

# UNITAID

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*An air-ticket solidarity levy started by a handful of countries in 2006 has gathered momentum and now supports partner programmes worldwide, helping to fund diagnosis and treatment of HIV/AIDS, malaria and tuberculosis*

UNITAID's mission is to help increase access to treatment for HIV/AIDS, malaria and tuberculosis for people in developing countries by using market leverage to lower prices, and to increase availability of appropriate quality drugs and diagnostics.

- UNITAID raises additional funds for global health through an innovative air tax and in other ways that ensure long-term predictable finance for selected projects.
- UNITAID targets underserved niches, such as paediatric medicines, where its innovative approach can have a tangible and sustainable impact on health commodities markets.
- UNITAID market interventions are specifically designed to increase supply, improve quality, stimulate the development of needed new products, and reduce prices through economies of scale and intensified competition.
- UNITAID action thereby helps improve availability and accessibility of quality drugs, diagnostics and other health products for all developing countries.

Founded by Brazil, Chile, France, Norway and the UK in 2006, today UNITAID has the support of 28 countries, as well as the Bill and Melinda Gates Foundation.

### UNITAID action pushes prices down through economies of scale and competition from new entrants

UNITAID currently supports partner programmes in 94 countries worldwide. Since late 2006, UNITAID has committed US\$1.5 billion to the diagnosis and treatment of HIV/AIDS, malaria and tuberculosis, representing a total of almost 50 million treatments provided to patients to date.

UNITAID action pushes prices down through economies of scale and competition from new entrants attracted by an expanded market. Moreover, by funding the purchase of quality-assured drugs that are approved by the World Health Organization's Prequalification Programme or other stringent regulatory authorities, UNITAID helps boost the availability and lower the prices of high-quality medicines.

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The added value is that a very tiny percentage of a large volume of transactions, which has minimal impact for those who pay, will have maximum impact for those who receive.

# UNITAID SUPPLIES 94 COUNTRIES WITH TREATMENTS FOR HIV/AIDS, MALARIA AND TB



AIR TRAVELLERS AND DONATIONS FROM 28 COUNTRIES  
HAVE CONTRIBUTED TO MAKING A DIFFERENCE TO MILLIONS OF PATIENTS.

# Non-communicable diseases: a challenge for the global community

*Cardiovascular diseases, cancer, diabetes and chronic respiratory disease were once problems seen mainly in wealthier countries. But as they become more prevalent in the developing world, the pressure is building to tackle the contributory factors*



By Mirta Roses Periago, director, Pan American Health Organization

**N**on-communicable diseases (NCDs) – predominantly cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases – are the leading causes of premature death and disability in the world, with an estimated 35 million people dying from NCDs in 2005. Millions more are currently living with an NCD, which is leading to rising healthcare costs, losses in productivity and impaired economic development.

The root causes of these diseases, however, are only partly biological, since they are also socially constructed diseases influenced largely by social, cultural, physical and economic environments. This is the key challenge for the global community – to create environments that promote health, provide opportunities for wellness and apply effective strategies known to prevent non-communicable diseases.

NCDs share modifiable risk factors: tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol. If these risk factors were eliminated, the problem would be tackled. An estimated 80 per cent of all heart disease, stroke and type 2 diabetes could be prevented, along with more than 40 per cent of cancers, by eliminating these risk factors. Tobacco use is the single most important risk factor for NCDs. The World Health Organization's (WHO) Framework Convention on Tobacco Control is an important instrument to address the NCD problem.

Managing NCDs is not simply a matter of changing individual behaviour, although personal responsibility for health is clearly important. Because the causes for NCDs are a result of social, environmental and economic determinants, the solution rests not only within the health sector, but also in other sectors that can create healthy public policies: agriculture, trade, finance, labour, education, social protection, urban planning, transportation and economic development. Moreover, the solutions do not rest with governments alone, since the private sector should contribute to the creation of healthy choices and healthy environments. This is precisely where the global community can play a singularly influential role as part of the solution for NCDs: through the creation of healthy public policies that address the key challenges of these diseases.

The forthcoming United Nations high-level meeting on NCD prevention and control, to be held in September 2011 in New York, will convene heads of state and government from around the world to address some of these challenges. It is an opportunity of historic importance, being only the second UN high-level meeting to be devoted to a health issue (HIV/AIDS in 2005 was the first). Earlier this year, at the annual World Economic Forum meeting in Davos, UN secretary-general Ban Ki-moon spoke passionately and convincingly about how the global epidemic of NCDs requires a global response. Unhealthy lifestyles are being exported from the developed world to the less developed countries, and currently 85 per cent of people who die from NCDs reside in the developing world. Clearly, this situation requires urgent attention and a united response, since the economic and health struggles faced by developing countries are well known, and the evidence base exists to show how to prevent and control NCDs.

That is exactly why a UN high-level meeting on NCDs is needed. First, it will raise awareness among the world's top leaders and stimulate an "all of society" multi-sectoral response to the NCD problem. Second, it can spark the political will and impetus necessary to intensify actions using proven cost-effective measures – tobacco control; reduction of fat, sugar and dietary salt in foods; environmental transformation to combat obesity; and the scaling up of access to preventive care and essential medicines. By applying these measures, the tide of the upward spiral of healthcare costs will turn, and growth and productivity prospects will increase.

Non-communicable diseases share modifiable risk factors, of which tobacco is the single most important

The initiative to move to a high-level meeting at the UN was generated from within the Caribbean region, through the historic CARICOM Summit on Chronic Non-communicable Diseases held with heads of state and government in September 2007 in Trinidad and Tobago. The "Declaration of Port-of-Spain: United to Stop the Epidemic of Chronic NCDs" incorporated a 14-point multi-sectoral action agenda. Early evaluations from this region have shown that while the high-level political commitment was essential, it will not be sufficient, since ongoing financial and technical commitments are needed to build capacity in the countries.

The G8 Deauville Summit, in its agenda items on development, health and food, can provide significant support in moving forward the policy dialogue on NCDs. Opportunities that provide attention at the highest political level are crucial to overcoming the NCD problem and addressing the complexity of multi-factor and multi-level interventions. This is particularly so regarding issues related to food supply and diet, which underpin the risks for developing chronic diseases, including obesity, heart disease, diabetes and some types of cancers. The G8 agenda can also help influence trade agreements, for example, which can in turn improve access to healthy nutritious foods, ensure that local production is not displaced with imported, highly processed foods and provide incentives so that locally produced agricultural products are not all exported to developed countries at the expense of affecting the quality of locally available foods.

“The solutions do not rest with governments alone – the private sector should help create healthy choices and environments”

The summit can also help influence transnational cooperation, for example, with regard to the WHO recommendations on the marketing of foods and non-alcoholic beverages to children. The recommendations call for national and international action to reduce the exposure of children to marketing messages that promote foods high in saturated fats, trans-fatty acids, free sugars or salt, as well as the use of powerful techniques to market these foods to children.

The G8 can also direct greater attention to urban planning and mass transportation strategies that would lead to the creation of healthier, safer and more secure physical environments and the promotion of a vast social movement that values a healthy diet, physical activity and integral well-being and effectively supplants today's paradigm of health as "care and cure".

The challenges are numerous in changing environments and social behaviour and thus reducing the risks for NCDs. Nonetheless, the G8 is uniquely positioned to help address these challenges by promoting what we in the health sector call the "whole-of-society approach". This distinguished group can encourage the participation of other leaders and influential social actors in a dynamic, action-driven dialogue. Everyone needs to work together and do their part, to prevent a major crash and the sad prospect of watching the first-ever generation shorten its life expectancy to below that of its parents. ♦

BASF uses smart initiatives to address multiple Millennium Development Goals in the fight against poverty.

# From the simple to the sublime



**There are times when resolving the most complex challenge starts with the simplest initiatives.**

The UN Millennium Development Goals seem to pose an intractable challenge and serve as a case in point. Each goal is global in scope and complex in its own right. Yet the challenges posed by these eight goals overlap in a rippling cascade of cause and effect. Nonetheless, BASF has found that successfully addressing a linchpin issue can resolve numerous problems at once, effectively creating a reverse domino effect of positive consequences.

Consider the failing literacy programme in the Jabote community in the Brazilian Amazon. For years, malaria, which is endemic to the region, prevented children from attending class. In 2007, there were 465 registered cases of malaria in a community of 132 residents, meaning that on average each person contracted malaria around three times a year.

In partnership with a local government agency, BASF's **Interceptor**<sup>®</sup> long-lasting, insecticidal nets (LLIN) were distributed, to prevent the mosquito-borne disease from afflicting children as they slept. Thus, in 2010, the rate of malaria in the now 200-strong community reduced to only 0.12 cases per person, meaning that only one in every 12 people acquired the disease – an outstanding result. With disease at bay, the children's attendance improved and literacy increased.

This collaborative public health initiative helped the community to move forward in its efforts to mitigate a devastating disease and improve primary education, a key step toward the larger but often neglected goal of poverty reduction. In effect, a single, focused initiative moved a community along the path to fulfilling four Millennium Development Goals: Goal 1) Eradicate extreme poverty and hunger; Goal 2) Achieve universal primary education; Goal 4) Reduce child mortality; and Goal 6) Combat HIV/AIDS, malaria and other diseases.

BASF works hard to ensure that communities like Jabote are not alone in their efforts to improve their quality of life. Working with local leaders and global partners, BASF has established extensive insect-control programmes throughout Africa, South/Central America and Asia, seeking to eradicate malaria, dengue fever and guinea worm, diseases that are central elements in the vicious circle of poverty.

In Nigeria, BASF worked with Rotary International to distribute **Interceptor** LLINs to families bringing their children for a polio vaccination. The initiative helped combat two diseases at once; children received their vaccination against polio and mothers were educated on how to use the nets to prevent malaria.

BASF is also helping The Carter Center to eradicate guinea worm disease in Africa by donating **Abate**<sup>®</sup>, a larvicide that kills the tiny water fleas that harbour the parasitic guinea worms. Since 1988, BASF has donated more than 200,000 litres of **Abate**. Thanks to these efforts, infection rates have fallen by an incredible 99.9 per cent, with fewer than 2,000 cases of guinea worm disease reported in 2010.

**For more information, visit [www.publichealth.basf.com](http://www.publichealth.basf.com)**

The end result is fewer sick people, a workforce better able to sustain itself, healthier students prepared to learn and a brighter future. Of course, the ultimate challenge is to ensure that the achievement of Millennium Development Goals is a sustainable achievement. Here, too, BASF is looking ahead.

Working with Nobel Peace Prize laureate Professor Muhammad Yunus, BASF established a joint venture called BASF Grameen Ltd. The goal of this social business venture is to enable local entrepreneurs to sell public health products – initially, BASF's **Interceptor** LLIN. The result will be improved public health and sustainable business enterprises that foster community development and capacity, all critical pillars in the elimination of poverty.

As the world's leading chemical company, BASF recognises that sustainable development is central to its own long-term growth. And, accordingly, it is committed to the principles of social responsibility. A founding member of the United Nations Global Compact and Global Compact LEAD, a new platform established in 2011 for corporate sustainability leadership, BASF has also been recognised by the Dow Jones Sustainability World Index for ten consecutive years. For BASF, these achievements are not an end in themselves, but a validation of its dedication to the Millennium Development Goals.

The result will be improved public health and sustainable business enterprises that foster community development and capacity, all critical pillars in the elimination of poverty.



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# Continuing support to tackle infectious diseases head on

*Increased funding for programmes to fight deadly diseases in developing nations is saving lives. This year's summit provides an opportunity for G8 members to strengthen their commitment to building on the progress achieved so far*

**By** Michel D Kazatchkine, executive director, Global Fund to Fight AIDS, Tuberculosis and Malaria

It is just over a decade since the Millennium Development Goals (MDGs) were set to reverse the incidence of AIDS, tuberculosis (TB) and malaria, as well as reduce child mortality and improve maternal health. This unprecedented global commitment, along with the G8's vision for a financial mechanism at the 2000 Okinawa Summit, was soon followed by a call to action by the United Nations secretary-general Kofi Annan, paving the way for the establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2002.

Today, the Global Fund is the major international funder of AIDS, TB and malaria programmes in low- and middle-income countries (LMICs). A total of nearly \$22 billion has been approved since 2002 to fight these deadly diseases in 150 countries. Programmes supported by the Global Fund have now saved an estimated seven million lives.

## Tracking advances against disease

In 2009, 2.6 million people were infected with HIV – a reduction of nearly one-fifth of the total new infections in 1999, thanks to the remarkable efforts of the global community in supporting the hardest-hit countries to improve prevention and treatment.

Since 2001, HIV rates have fallen by more than 25 per cent in 33 countries – 22 of them in sub-Saharan Africa. HIV rates have decreased by 25 per cent or more among young people in 15 of the 21 highest-incidence countries, providing encouraging evidence that falling rates are linked to increasing safe behaviour.

Significant advances have also been made in the provision of antiretroviral treatment (ART). Of the estimated 15 million HIV-positive people who need ART, 36 per cent now have access to this drug, compared to virtually nobody in the developing world just a decade ago. The Global Fund provides ART to more than half of the 5.2 million people in LMICs. The rate of increase has been rapid: the number of people receiving ART in those countries rose from 4.1 million in 2008 to 5.3 million in 2009 – the largest increase to date in a single year.

Globally, more than half (53 per cent) of pregnant women living with HIV receive antiretroviral drugs to prevent the transmission of HIV to their babies, compared to just 15 per cent in 2005. The Global Fund is the largest

funder of this intervention, in 2010 redirecting more than \$70 million in unspent funds to expand programmes to prevent mother-to-child transmission (PMTCT). Together with UNAIDS and UNICEF, the Global Fund has called for the elimination of PMTCT by 2015. It is also the largest international supporter of harm-reduction interventions for people who inject drugs, having invested around \$180 million in 42 countries.

Tuberculosis remains a leading cause of death in LMICs, more than a century after the discovery of the infectious agent and five decades after introducing effective chemotherapy. The HIV epidemic fuels the TB epidemic in many LMICs. Of the 9.4 million cases of TB worldwide in 2009, 1.1 million were HIV-positive; of 1.7 million TB deaths, 400,000 were HIV-positive. Multi-drug-resistant (MDR) TB poses a significant challenge. Among TB patients notified in 2009, an estimated 250,000 had MDR-TB and of these, only 30,000 were diagnosed and 23,000 enrolled in second-line treatment.

Nevertheless, as a result of increased interventions, incidence rates are declining globally. TB-related mortality rates declined by 35 per cent between 1990 and 2009. The global TB targets are expected to be met by 2015 if these trends are sustained.

Global Fund-supported programmes have helped to accelerate TB case-detection and successful treatment. By the end of 2010, programmes in 97 LMICs had cumulatively detected and treated 7.7 million new cases – 86 per cent of them in the 22 highest-incidence countries. Programmes provided treatment for MDR-TB to 14,000 people in 2009 and 13,000 in 2010, bringing the total number of MDR-TB cases treated with Global Fund support so far to 43,000. TB/HIV collaborative activities have also been expanded in recent years.

Malaria is one of the major causes of morbidity and mortality among children under five years of age in sub-Saharan Africa. A steep rise in international funding for malaria-control in the past decade has led to the massive distribution of insecticide-treated mosquito nets (ITNs), especially over the last four years. The World Health Organization estimates that by 2010, 289 million ITNs had been delivered to sub-Saharan Africa – enough to cover 76 per cent of the 765 million people at risk. By 2010, Global Fund-supported programmes had distributed 160 million ITNs globally –



At least one-quarter of annual deaths and half of life-years lost globally can be related directly to infectious diseases



over 30 times more coverage than the five million nets distributed globally in 2002.

Since 2003, many countries have also achieved a rapid increase of artemisinin-based combination therapy. The Global Fund's Affordable Medicines Facility for malaria is helping countries to ensure they have access to affordable, effective antimalarial drugs.

In 2009, there were approximately 223 million cases of malaria, which is a 13 per cent decline compared to 2000. The number of deaths due to malaria is estimated to have fallen by more than 20 per cent, from 989,000 in 2000 to 784,000 in 2009. A decrease in malaria cases of more than 50 per cent between 2000 and 2009 was documented in 11 countries and one area in Africa, and in 32 of the 56 malaria-endemic countries outside Africa. Roll Back Malaria's target of a 75 per cent decline in cases by 2015 is within reach.

Global Fund investments to fight AIDS, TB and malaria have contributed substantially towards reducing child mortality and improving maternal health (MDGs 4 and 5). By strengthening health and community systems, they also enhance access to primary healthcare services. Between 44 and 54 per cent of all Global Fund grant disbursements benefit women and children. Increasing coverage of insecticide-treated nets is significantly reducing under-five mortality rates in the most-affected countries. The rate of decline in all-cause mortality among children under the age of five in sub-Saharan Africa was greater in the 40 LMICs with the largest combined HIV and malaria grant portfolios from the Global Fund.

While the commitments to maternal and child health made by the G8 leaders at the 2010 Muskoka Summit are very encouraging, it is not yet clear how they will accelerate results and progress towards MDGs 4 and 5.

Infectious diseases continue to be a major challenge. At least one-quarter of annual deaths and half of life-years

lost globally can be related directly to infectious diseases. The three major infectious disease killers still account for 4.5 million deaths annually.

### Maintaining progress

Sustained political and financial commitments are, therefore, essential if the gains of the last decade are to be maintained. At the Global Fund's replenishment conference in October 2010, the G8 countries and the European Commission together accounted for three-quarters of the \$11.7 billion pledged for the period 2011-13. Four G8 countries (United States, France, Japan and Canada) increased their commitments compared to 2007, while Russia made a significant new pledge of \$60 million. The United Kingdom expects to increase its contribution following a positive assessment of the Global Fund in its recent multilateral aid review. Germany maintained a stable contribution. It remains unclear whether Italy will renew its commitment.

These are encouraging signs. Nevertheless, recent events, including the US mid-term elections, the suspension by Germany of contributions to the Global Fund following reports of misuse of funds in a small number of countries and the devastating earthquake in Japan, coupled with the uneven pace of economic recovery, present challenges in securing committed funds. Despite some encouraging signals, several major emerging economies in the G20 have not yet come through with significant contributions to the Global Fund or other multilateral health efforts.

May's G8 Deauville Summit and November's G20 Cannes Summit, therefore, provide other important opportunities for the G8 to reaffirm its commitments to global health and for other leading economies in the G20 to show their solidarity in the fight against the major health challenges of today. ♦

Better case-detection and treatment methods have delivered a fall in disease-related deaths



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# Time to up the ante in this war against poverty

*In the fight to eradicate tropical diseases, one of the key issues that must be factored into the equation is the impoverished circumstances of most sufferers. Research is the key driver in reaching a solution that addresses the needs of those worse affected*

**By** Robert Ridley, director, Special Programme for Research and Training in Tropical Diseases, World Health Organization

**I**n the early 1970s, it was estimated that one billion people out of a global population of around 3.9 billion were suffering from one or more tropical parasitic diseases. Today, while the world's population has approximately doubled and the spectrum of disease threats has shifted, every year around one billion people in 149 countries still are victims of one or more neglected tropical diseases.

These diseases thrive in impoverished settings, where housing is often substandard, safe water and sanitation are scarce, environments are filthy, and insects and other vectors are abundant.

Huge advances have been made in creating new drugs and tools to prevent these diseases and effectively treat

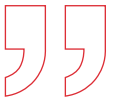
them. A main challenge today is to make these interventions available wherever and whenever they are needed.

Every smart corporation has a research centre focused not only on creating new products, but also on how to do things better. When an organisation continuously learns how to work smarter, it can deliver services and products more effectively to those who want and need them. A dedicated service like this is equally, if not more, important for private and public institutions in low-income countries, where it is essential to use the few resources available in the smartest, most efficient way possible.

"Continue to innovate", said Margaret Chan, director-general of the World Health Organization, when she launched the 2010 report on neglected tropical diseases.



Today, the focus is on innovation and empowerment aimed at increasing access to improved health products



“We need better diagnostics and medicines... but we also need ingenious low-tech innovations that help streamline operational demands and stretch resources and drugs even further.”

The Special Programme for Research and Training in Tropical Diseases (TDR) has long worked to take research beyond the development of new products and tools and have helped establish and support a science called implementation research, sometimes also referred to as operational research. This essentially consists of research work in real-life situations in the field, where TDR partners with local researchers and organisations to better understand the barriers to access and test new delivery solutions. It results in an evidence base that can translate research into policy and action. It can be truly transformative in how to approach issues of delivery and access nationally, regionally and globally.

Implementation research makes a real and positive difference. It takes the products to the level where they are needed – at the end of the road where people live simply in poor, remote villages.

Only between four and five per cent of children under the age of five in Africa sleep under insecticide-treated bednets, which TDR studies in the mid-1990s demonstrated could cut child mortality by 20 per cent. That was the first evidence that showed that a tool (the net) works. Later research showed that people in some societies did not want to use the nets because their white colour looked too much like a fabric used to wrap dead bodies, which led to manufacturers colouring the nets. Further research demonstrated that bednets were often used only by the men in the family and the most vulnerable family members – pregnant women and children – went unprotected. Men had more power and as the net was seen as a status symbol, they used the nets. Improving this situation did not require a new net or new drug. It required understanding the social system so that changes in how bednets were promoted and changes in channels of distribution could be made to protect the health of all.

While nets can prevent the parasite-carrying mosquito bite (and thus the disease), drugs are still needed for treatment. But having medication that works does not mean that patients have access to the drug, or that they know how to take it. TDR-supported research documented that community health workers, appropriately trained, could effectively deliver antimalarial drugs. TDR further documented a way of packaging using colour coding and blister packs so that the right dose was delivered, regardless of whether the patient could read. This concept is now widely used and is the basis of the packaging used for Coartem, one of the most important antimalarial drugs.

For onchocerciasis (river blindness), the implementation problem was a little different. Blindness is caused by small worms that flow through the blood in the eye. One drug that killed these small worms and prevented them from causing the damage inside the body needed to be delivered to every person in affected communities once a year. To date that has meant reaching 60 million people across a vast continent, often in remote rural areas. TDR and the African Programme for Onchocerciasis Control (APOC) identified that the best way to get this drug delivered and taken was through community-owned and -directed processes, rather than centralised delivery. As a result great strides are being taken towards eliminating the disease. This community-directed approach is now also being integrated into primary healthcare approaches across sub-Saharan Africa to address other diseases and health problems. Community participation, where local leaders identify people in the villages to take responsibility for specific parts of the problem and are engaged in working out solutions, has proven effective. When the problem is worked out from within, the solution is much more sustainable – it fits with the local culture and systems.

This kind of research, implementation research, is needed more than ever today. Major investments have been made in developing new drugs and diagnostic tools. Significant amounts of resources have been allocated for purchase of these tools through institutions such as the Global Fund to Fight AIDS, Tuberculosis and Malaria and many bilateral aid initiatives. Now ways are needed to ensure the tools are effectively used. An implementation research approach, coupled with effective monitoring and evaluation processes, can greatly improve the effectiveness of national and international investments in health.

The dimensions of the challenges remain significant and highly dynamic. There are many drivers that affect the balance – social issues, economic issues and even environmental changes. All of these require deeper understanding and pragmatic research directed at continuous learning and improvement of approaches and processes, enabling rapid responses that can usefully feed into and strengthen the broader health system.

Today, the focus is on innovation and empowerment aimed at increasing access to improved health products and care in the poorest countries. Research that includes locally owned solutions is a transformative investment that leads to long-lasting, sustainable solutions. This is what can help achieve the Millennium Development Goals. Together, we can reduce the unfair burden of the diseases of poverty. ♦



Children are often the most vulnerable in instances of airborne tropical disease



# New vaccines urgently needed to move to a TB free world



Every second someone worldwide is infected with the bacterium that causes tuberculosis (TB) and at risk of developing the disease. Every year almost 2 million people die of TB, equaling one death every 18 seconds. Although poverty-related and mostly affecting developing countries (Africa and Asia), tuberculosis is prevalent in all continents.

Multidrug resistant (MDR) and extensively drug resistant (XDR) TB are on the rise and also threatening developed countries. TB is a leading killer among people living with HIV. The situation is turning serious in Europe, is alarming in Africa and extremely worrisome in Russia, China and India. The burden of the disease, affecting economies worldwide, is estimated at hundreds of billions of dollars annually.

Studies show that without new vaccines TB can never be eliminated. BCG, the only available TB vaccine, is insufficient in its ability to protect adolescents and adults from pulmonary (lung) TB – the most common form of TB. TuBerculosis Vaccine Initiative (TBVI), an independent nonprofit organization, strongly encourages research and discovery and pushes forward their translation into new, effective and safe vaccines that are globally accessible and affordable.

TBVI aims to reach these objectives through financial and practical support to an integrated pan-European network of more than 40 of the best universities, institutes and industries. TBVI's outstanding track record shows that the urgently needed vaccines can be developed. If, collectively, we can leverage the resources of public, private, academic and philanthropic sectors, we can successfully eliminate TB.

[www.tbvi.eu](http://www.tbvi.eu)

# African Programme for Onchocerciasis Control

*Curbing the course of river blindness and reviving the hopes of the poor*



Imagine a world of 184,000 villages with 500 inhabitants in each village and, among those, 235 inhabitants are infected by river blindness. In that world, close to 370,000 people have been blinded and are completely dependent on hand-outs, and are a burden on their families. Imagine that the people of such villages have to run away, abandoning fertile lands for fear of going blind if no action is taken to fight onchocerciasis (oncho), the cause of this scourge. What world would that be? Not the dream world of millions of people affected by oncho.

## Economically crippled by blindness

In communities affected by oncho, a striking proportion of blind people are led around with a stick by children, begging for little money or for sheer survival. A large proportion of the active sub-Saharan African population is economically crippled by river blindness. The blind people are not only affected by poverty, but are also likely to die earlier. Their children, instead of getting an education at school, are doomed to live in a state of ignorance, reinforcing the cycle of poverty and even destitution.

### Impact on children

**The school drop-out rate is three times higher among children whose parents have river blindness**

## Onchocerciasis or river blindness

Affects 30 African countries, where 120 million people are at high risk.

Symptoms and effects:

- intensive itching
- disfiguring skin disease
- eye lesions and blindness
- permanent disability & disfigurement
- social stigmatisation
- reduced duration of breast feeding



## Curbing the course of river blindness (OCP & APOC)

The control of the disease has been implemented in two phases: 1974-2002:

Onchocerciasis Control Programme in West Africa (OCP) operated in 11 countries and successfully controlled the disease. 1995 to date:

APOC: a broad and well-defined public-private partnership, The African Programme for Onchocerciasis Control (APOC), conducting Community-Directed Treatment with Ivermectin (CDTI), reached more than 68 million people in 2009 and has made a breakthrough by providing evidence of the feasibility of onchocerciasis elimination.

Successes from OCP to APOC	
OCP achievements (1974-2002)	APOC achievements (1996-2009)
<ul style="list-style-type: none"> <li>• 40 million people in 11 countries free from infection and eye lesions</li> </ul>	<ul style="list-style-type: none"> <li>• 20 million cases of severe itching prevented</li> </ul>
<ul style="list-style-type: none"> <li>• 600,000 cases of blindness prevented</li> </ul>	<ul style="list-style-type: none"> <li>• 500,000 cases of blindness prevented</li> </ul>
<ul style="list-style-type: none"> <li>• 18 million children born free of the threat of blindness and debilitating skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• 146,000 communities mobilised and empowered</li> </ul>
<ul style="list-style-type: none"> <li>• One million years of productive labour generated in participating nations</li> </ul>	<ul style="list-style-type: none"> <li>• Cumulative workforce of 900,000 community-directed distributors trained and available for other programmes</li> </ul>
<ul style="list-style-type: none"> <li>• 25 million hectares of abandoned arable land reclaimed for settlement and agricultural production, capable of feeding 17 million people annually</li> </ul>	<ul style="list-style-type: none"> <li>• 68.4 million people treated in 2009</li> <li>• Elimination of infection and interruption of transmission of onchocerciasis in eight sites</li> </ul>
<ul style="list-style-type: none"> <li>• Economic rate of return of 20 per cent</li> </ul>	<ul style="list-style-type: none"> <li>• Economic rate of return of 17 per cent</li> <li>• One million DALYs (disability-adjusted life years) per year averted</li> <li>• \$7 per DALY averted</li> </ul>
	<ul style="list-style-type: none"> <li>• Over 38 million people reached with multiple health interventions and Ivermectin treatment using APOC CDI strategy</li> </ul>



### Socially rejected for the condition of her skin: Agnes's story

Agnes, a young girl from Etteh village in Enugu State, Nigeria, grew up on the banks of a river and was bitten by blackflies, never realising the future consequences of these regular bites. As she was growing up, her skin started to itch intensely. She could hardly sleep at night and finally dropped out of school due to a lack of concentration.

Agnes was very happy when she married a young man and was able to escape the disgrace laid upon unmarried women in her community. After her marriage, her husband became disturbed and angry when he discovered that Agnes suffered from severe itching and a disfiguring skin condition that continues to worsen. He sent Agnes back to her family and further indignity because of social rejection.

Fortunately, Agnes received treatment. Later, she realised that her skin was becoming smooth again. Her ex-husband negotiated and took her back. Unlike Agnes, many other young girls are not fortunate enough to receive treatment and restore their dignity.

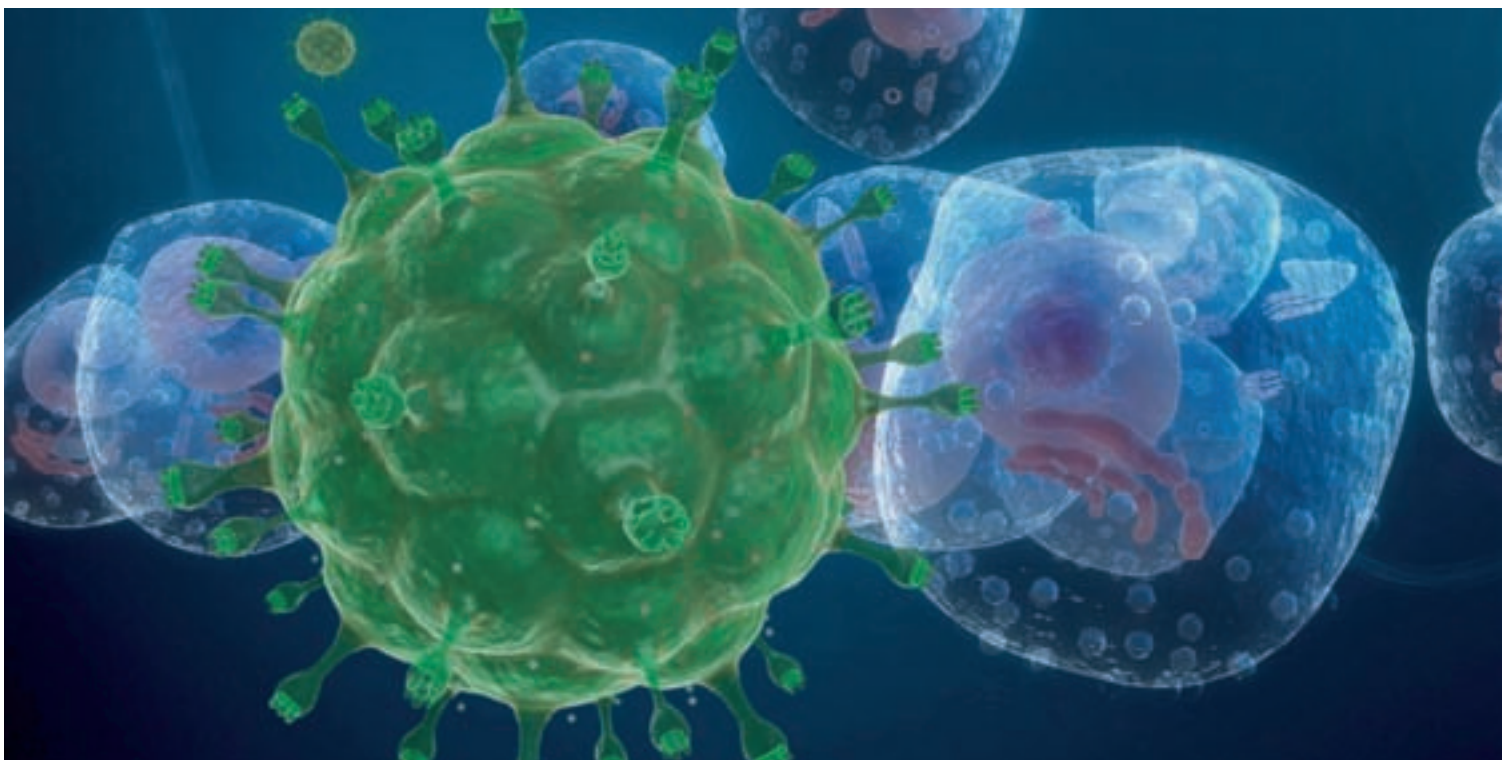
### APOC Perspectives

- Engaging and building partnerships with communities (120 million people) to eliminate onchocerciasis infection and interrupt transmission in Africa;
- Reinforcing the capacity of the network of community volunteers (community-directed distributors) available for the control of neglected tropical diseases;
- Strengthening national health systems in Africa and improving primary healthcare through the use of community-directed intervention (CDI) strategy;
- Sharing successes by institutionalising the inclusion of the CDI strategy in the curriculum of faculties of medicine, health sciences and nursing schools for strengthening community health systems;
- Building equity through gender mainstreaming for the control and elimination of oncho in Africa;
- Strengthening partnerships to meet the challenges of elimination of onchocerciasis infection and interruption of transmission.



Website: [www.who.int/apoc](http://www.who.int/apoc)





# Revolutionising HIV prevention: reaping the dividend

*The G8 needs to keep its eye on the ball in the fight against AIDS and HIV – particularly in the area of prevention, which offers so much potential*

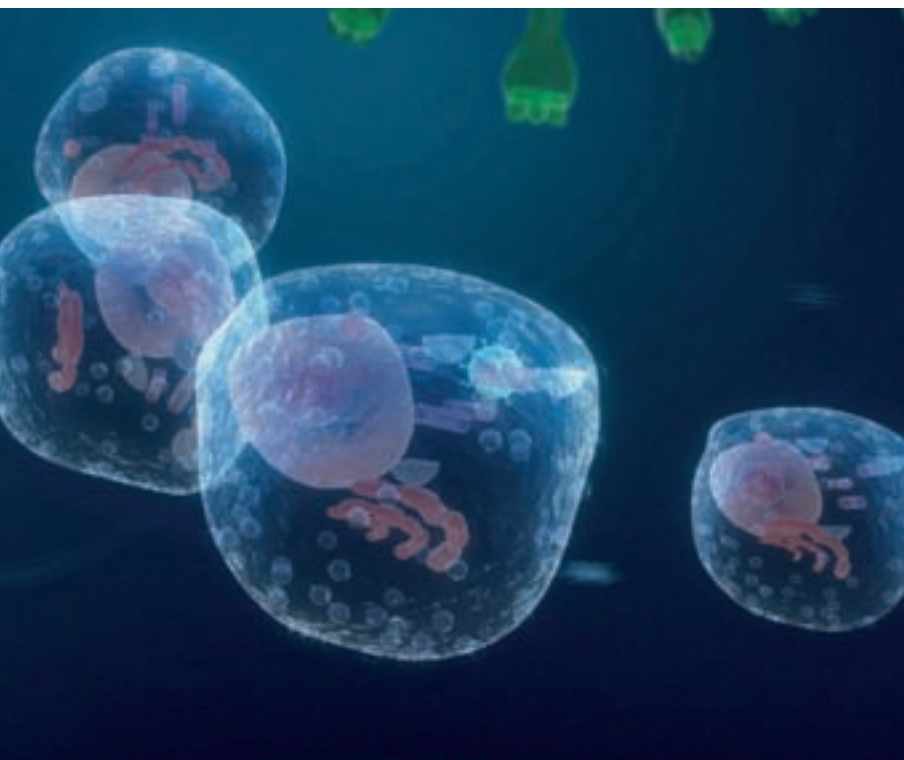
**By** Michel Sidibé,  
executive director,  
UNAIDS

Since the mid 1990s, the G8 has set the agenda for global health and HIV, giving rise to some of the most innovative and game-changing advances in the annals of the AIDS response. At Okinawa, Japan, in 2000, G8 leaders joined in a historic commitment to combat infectious diseases, which ultimately produced the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Five years later, at Gleneagles in Scotland, G8 leaders pledged a massive increase in global health spending, focusing particularly on Africa. Equally importantly, the group made the landmark commitment “to provide as close as possible to universal access to treatment for AIDS by 2010”. Although people living with and affected by HIV played a major role in generating this political commitment, the spectacular success of the AIDS response can be largely credited to these two announcements by the G8.

As a result, by the end of 2010, more than six million people in low- and middle-income countries were receiving life-prolonging antiretroviral therapy, compared with less than half a million in 2003. Between 2004 and 2009, annual AIDS-related deaths decreased from 2.1 million to 1.8 million. Without treatment, well over half a million more people would have died in 2009. Moreover, new HIV infections declined by 19 per cent between 1999 and 2009 worldwide. These are remarkable achievements indeed.

Global events have, at times, distracted the G8 from global health. But now is the very worst time for attention to be diverted from HIV prevention. For one thing, new HIV infections continue to outpace the number of people starting treatment by two to one. With 10 million people still in need of treatment, there is a long queue the world cannot allow, or afford, to get any longer.



## “Investing in HIV prevention is akin to issuing global social insurance”

Investing in HIV prevention is akin to issuing a global social insurance policy. It is the way to shield economies from productivity losses, protect treasuries from unsustainable escalation of treatment costs and defend societies against the instability that will ensue if treatment benefits are withdrawn from people.

Another reason for timely investment is that AIDS currently stands in the way of every single development goal. AIDS is the leading cause of mortality among women of reproductive age worldwide and the leading cause of death among children in six sub-Saharan African countries.

But this need not be the case – for every HIV infection is avoidable. Evidence and experience confirm that HIV prevention works. Thanks to proven approaches, new infections have fallen by more than one quarter in 33 countries since 2001. Epidemics in some of the highest-burden countries in sub-Saharan Africa – Ethiopia, Nigeria, South Africa, Zambia and Zimbabwe – have either stabilised or are in decline. So-called ‘combination’ HIV prevention efforts, which simultaneously tackle the biomedical, behavioural and structural drivers of HIV, have decisively changed the course of many epidemics.

Young people are at the forefront of such change. Ten countries show a decline of 25 per cent or more in the number of new infections in young people between 2002 and 2008. Investing in approaches such as conditional cash transfers given to girls to attend school, as has been done in Malawi, can bring about reductions in early marriage, pregnancy, sexual activity and risky sexual behaviour.

Modelling suggests that five existing prevention interventions, packaged in different ways depending on

community or country needs, could avert approximately 80 per cent of new infections. The increased availability of condoms must remain central to these efforts.

Moreover, the scientific community is buoyed by recent breakthroughs in new prevention technologies. These include data pointing to the efficacy of a microbicide gel that women can use and to the use of antiretroviral tablets to protect people who are HIV-negative but at high risk of HIV through sexual transmission. When a person living with HIV is on treatment, the risk of transmission to his or her partner might be as much as 92 per cent lower than among couples without access to treatment. Also, male circumcision has been shown to reduce men’s risk of HIV by up to 60 per cent. And for the first time, an HIV vaccine has shown a modest protective effect, giving hope that an effective HIV vaccine to end the epidemic will one day be a reality.

Yet despite the promise that HIV prevention offers, it accounts for only 22 per cent of all HIV spending in 106 low- and middle- income countries. Of equal concern is that in 71 countries, less than half of prevention spending comes from domestic sources. Clearly, the principle of shared responsibility for HIV prevention requires a more solid foundation in the development paradigm. It also requires more attention to the social drivers of HIV such as gender inequality, discrimination and human rights abuses, particularly as they affect marginalised groups that are already at higher risk of HIV infection – people who buy and sell sex, men who have sex with men and people who use drugs.

In 2010, responding to the urgent need to boost the prominence of prevention and the potential for radical breakthroughs, UNAIDS convened the High-Level Commission on HIV Prevention. Its 15 world-renowned leaders are spearheading a political action campaign to galvanise commitment at the highest levels to support effective HIV-prevention programmes.

In particular, the commission is calling for a prevention revolution on four fronts:

- rapidly scaling up successful prevention tactics;
- directing scarce resources toward saturating transmission ‘hot spots’, according to the dynamic nature of every country’s epidemic;
- enhancing the accountability of political and business leaders, as well as non-governmental groups and health professionals; and
- expanding the practical protection of human rights to overcome the inequities that drive the spread of HIV.

In the words of one commissioner, Mohamed El Baradei, “the answer to HIV is really an answer to what sort of society, what sort of values we would like to live by”. Commission members will be on hand in a few weeks’ time, at the United Nations General Assembly High-Level Meeting on AIDS on 8-10 June in New York, to ensure that the global community does not stray from the commitment to universal access to prevention kindled by the G8.

The G8 must continue to inspire the world to reach new heights of social justice and human dignity. Central to the vision at UNAIDS is a world of zero new HIV infections. The G8 can join the call for a prevention revolution. In particular, I urge the group’s communiqué from Deauville to include at least three HIV prevention messages. First, the G8 should commit to the goal of virtual elimination of mother-to-child HIV transmission by 2015. Second, the G8 should continue pushing for the scale-up of all existing evidence-informed prevention interventions, as well as the development and deployment of new prevention technologies. Third, the G8 should call on the G20 and all middle-income countries to assume a more balanced responsibility for HIV prevention programmes. These are three steps the G8 can take to make a giant leap closer to zero new HIV infections and a better future for all. ♦

# Drug-resistant tuberculosis: a global emergency requires an innovative response

## TB: a global overview

Tuberculosis (TB), often thought of as a disease of the past, continues to plague the world's most vulnerable people. The World Health Organization (WHO) estimates there were 9.4 million new cases of TB globally in 2009; in the same year, 1.7 million people died of TB – equal to about 4,700 deaths each day.

The WHO estimates that of all new TB cases in 2009, about 3.3 per cent of these were the drug-resistant form of TB, called multidrug-resistant tuberculosis, or MDR-TB. These findings by WHO mark the highest rates ever of MDR-TB. In some settings in the former Soviet Union, these rates peaked at about 28 per cent of new TB cases.

These dire statistics are even more dismal considering that TB and MDR-TB are treatable and curable. The real problem lies in the fact that TB – in all its forms – is a complex disease, one that is not only a medical problem; it is also a social and economic problem.

## Lilly has partnered with manufacturers, providing knowledge and financial assistance to create sustainable, local sources for MDR-TB drugs

### A multi-pronged approach to MDR-TB

The Lilly MDR-TB Partnership is a public-private initiative that encompasses global health and relief organisations, academic institutions and private companies, and is led by Eli Lilly and Company. Its mission is to address the expanding crisis of MDR-TB. Created in 2003 to address the growing challenge of MDR-TB, the Partnership has adopted a 360-degree approach, and mobilises over 25 global healthcare partners on five continents to share resources and knowledge to confront TB and MDR-TB. To drive the Partnership, Lilly is contributing \$120 million in cash, medicines, advocacy tools and technology to focus global resources on prevention, diagnosis and treatment of patients with MDR-TB; and an additional \$15 million to the Lilly TB Drug Discovery Initiative to accelerate the discovery of new drugs to treat TB.

### Empowering local communities

In order to prevent the spread of the disease and effectively care for those infected, the Lilly MDR-TB Partnership has implemented community-level programmes to raise awareness about MDR-TB, increase access to treatment, ensure correct completion of treatment and empower patients by eliminating the stigma of the disease in communities and workplaces.

The Partnership also trains healthcare workers to recognise, treat, monitor and prevent the further spread of MDR-TB. These training materials and courses have been designed to ensure that the knowledge learned is passed on to peers, furthering the quality of patient care.

### A global approach for global results

While community and country-based activities empower local populations to fight MDR-TB, global change requires a global view. With this in mind, the Partnership works with policymakers to raise awareness about the toll that TB takes on the global population and encourages new initiatives that curb the spread of MDR-TB. Additionally, the Partnership promotes adherence to WHO standards on TB treatment



and supports national TB programmes that have been developed using these standards.

#### **Sustainable access to medicines**

One of Lilly's many goals is to increase the supply of high-quality, affordable medicines to the people who need them most. To do this, Lilly has partnered with manufacturers in countries hardest hit by MDR-TB, providing both knowledge and financial assistance to create sustainable, local sources for MDR-TB drugs. These locally produced drugs enable access to medicines at affordable prices for MDR-TB patients, while supporting local economies and ensuring high-quality manufacturing.

#### **New drug-discovery initiative**

While access to medicine and care helps patients significantly, MDR-TB treatment remains a long, isolated process. To encourage patients to complete treatment and avoid even more drug-resistant strains of TB, research and development are necessary to discover faster-acting medicines. To address this need, Lilly has created the Lilly TB Drug Discovery Initiative, which is a not-for-profit public-private partnership that will draw on the global resources of its partners, including medicinal libraries donated by Lilly, to pioneer research.

#### **A public-private partnership for those in need**

Lilly and its Partners work together closely, sharing knowledge, expertise and research in the quest to contain

and conquer MDR-TB, a disease that disproportionately affects impoverished populations. The initiatives of the Lilly MDR-TB Partnership all have one thing in common: improved care for some of the world's most vulnerable people, delivered in a manner that is sustainable and builds capacity within the communities where it is needed most.

#### **The Lilly MDR-TB Partnership**

**Eli Lilly and Company 16 Chemin des Coquelicots,  
PO Box 580, Geneva 1214, Switzerland  
[www.lillymdr-tb.com](http://www.lillymdr-tb.com) Email: [mdrtb@lilly.com](mailto:mdrtb@lilly.com)  
Phone: +41 22 306 0333**



# A tipping point in the fight against malaria

*Much headway has been made in combating malaria, especially in Africa, where preventive measures have saved millions of lives. Challenges lie ahead, however, and continued investment is essential to win the battle against this deadly disease*

By Mark Green,  
special advisor,  
Malaria No More

**W**orld leaders are gathering in Deauville for the G8 summit at a pivotal moment in global health – and specifically, in the global fight against malaria. This disease has ravaged humankind for centuries, claiming millions of lives. While there have been successes in eliminating malaria in Europe and the United States, it remains a leading cause of death among children in Africa, killing a child every 45 seconds.

The world is at a tipping point in the fight against malaria – and could tip in one direction or another. Investments and progress could be sustained and accelerated, leading to an end to malaria deaths in the next few years. Or funding could fall off, leading to resurgences and reversing many of the gains that have been made.

## Taking stock of progress

The world has turned the corner in its quest to prevent and control malaria, making real, sustainable progress. Since 2005, an incredible investment of resources has enabled many African countries to scale up the availability and use of proven, cost-effective malaria-control interventions. For example, household ownership of an insecticide-treated mosquito net – which is as cost-effective as measles immunisation – rose from below 5 per cent in 2005 to reach 42 per cent in 2010.

In just the past year, malaria cases declined by 18 million and malaria deaths declined by 82,000. This progress builds on significant momentum. In the past 10 years, malaria prevention saved the lives of three quarters of a million children. Eleven African countries reduced malaria cases or admissions and deaths by more than 50 per cent.

Consider Senegal. In that country, household ownership of a mosquito net increased from 36 per cent in 2006 to

“The world has turned the corner in its quest to prevent and control malaria, making real, sustainable progress”

60 per cent in 2008, and the proportion of pregnant women who received preventive treatment increased from 12 per cent in 2005 to 52 per cent in 2008. As a consequence, child mortality declined by 30 per cent between 2005 and 2008.

Progress has been made in building political support and will, too. At the 2009 United Nations General Assembly, 14 African heads of state joined together to rededicate themselves to the goal of ending malaria deaths by 2015. They launched a new coalition called ALMA, the African Leaders Malaria Alliance.

Just one year later, ALMA has grown to more than 35 heads of state. It has provided an invaluable forum for leaders to share ideas and best practices, and to collaborate on common challenges. In just its first year of existence, ALMA tackled important issues such as securing universal access to artemisinin-based combination therapy to prevent drug resistance; removing taxes and tariffs on essential anti-malaria products; increasing local production of high-quality, safe and effective anti-malaria interventions; and the banning of monotherapies.

## New challenges and opportunities

As world leaders descend upon this year's summit in Deauville, they should have a great sense of hope. It is clear that the world has come a long way in the fight against malaria. However, if history is any guide, now is the time to ensure that progress is sustained, and that focus and resolve are not lost.

Countries in which malaria is under control could be vulnerable to resurgence. As recently as 2009, malaria cases increased in Rwanda, Saô Tomé and Príncipe and Zambia. These resurgences underscore the challenges of sustaining progress at a time when funding is in danger of stagnating.

The world faces several difficult challenges over the next several years. Of course, resistance to anti-malarial medicine remains a constant threat – requiring continued investments in research and development. The lifespan of long-lasting insecticide-treated mosquito nets is currently three years. As a result, mosquito nets delivered since 2006 are already due for replacement, or will be very soon – and failure to replace them could lead to a resurgence of the disease. At the same time, ending malaria deaths requires the diagnosis and treatment of all suspected cases of malaria, requiring additional investments in rapid diagnostic tests and anti-malarial medicine.

These challenges – and the increased demand for resources required to meet them – have converged at a



time of enormous economic and budgetary pressures. However, with these challenges comes the opportunity to transform one of humanity's greatest tragedies into one of humanity's greatest triumphs. All it would take is the will to make it happen.

#### **A world free from the burden of malaria**

As the significant progress in recent years has demonstrated, malaria control provides a valuable return on investment. It saves thousands of lives at minimal cost to governments. For example, the United States provides funding for malaria control that accounts for less than three one-hundredths of one per cent of the federal budget. Significant cuts in this funding would

Further support and investment will be needed to prevent a resurgence of malaria cases across Africa

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do very little to ease budgetary pressures – but would have a devastating human cost.

Why is saving lives in everyone's interest? Because it reflects who we are, and makes us human. But, of course, the world has other interests at stake. Spreading hope fights the spread of fear and terrorism. In a global and interconnected economy, instability in Africa causes ripples in trade and unemployment that are felt far away.

For all these reasons, world leaders in Deauville should pause for a moment to reflect upon the plight of those suffering with a preventable disease – and then imagine a world free from the burden of malaria. That world is no longer a distant dream. We should make it reality – for no other reason than because we can. ♦



**“ I fear that my child can die because of this disease malaria. This medicine is good because the child can swallow fast and does not have any side effects such as rashes. The fever also goes down very fast. Now she can speak and play and truly I have seen a big difference.”** Rose Aluoch, mother, Kenya.

## The Novartis Malaria Initiative

Innovating to help eliminate malaria

Novartis has provided over 400 million treatment courses for malaria\* without profit to malaria-endemic countries since 2001, **helping to save the lives of an estimated 1 million patients.**<sup>1</sup>

We believe that no one should die of malaria today. For over a decade, we have been a pioneer in the fight against malaria. Together with our partners, and with our continued patient-centric approach, we are committed to the common goal of malaria elimination.

Resting on four key pillars, the Novartis Malaria Initiative is tailored to best meet patient needs.

### 1 Treatment

- Novartis artemether-lumefantrine (AL) was the first fixed-dose artemisinin-based combination therapy prequalified by the WHO for its efficacy, safety and quality.<sup>2</sup>
- Novartis, in collaboration with Medicines for Malaria Venture, developed the first dispersible AL treatment, tailored to the needs of infants and children.<sup>3</sup>

### 2 Research & Development – stepping stones on the path to malaria elimination

- In 2010, we started clinical trials for an antimalarial with a novel mechanism of action and are developing a robust pipeline to treat malaria.<sup>4</sup>
- Novartis is evaluating the feasibility of reducing malaria transmission through the mass screening and targeted treatment of asymptomatic patients carrying parasites.<sup>5</sup> This work may continue to progress the elimination agenda going forward.<sup>6</sup>

### 3 Access – improving affordability and availability of medicines

- In 2009, Novartis led the ‘SMS for Life’ pilot, an innovative Roll Back Malaria public-private project. Using SMS technology, this provides visibility of antimalarial stock levels to improve access to essential malaria medicines in rural areas.<sup>7</sup>
- Today, the Novartis Malaria Initiative is engaged in more than 20 public-private partnerships to best serve patients in need.

### 4 Capacity building – empowering patients and healthcare professionals

- Novartis has developed innovative packaging for its AL treatment, to enhance adherence for not fully literate populations through the use of pictograms.
- We continuously foster best practice exchange between African public health officials responsible for malaria control in areas such as healthcare worker training, stock management and health impact measurement.

#### References

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# Keeping it in the community: well-being in the developing world

*The G8 should focus on providing global public goods and commit to providing health for everyone. Leaders need to strengthen primary healthcare, adopt a community-based approach and correct the previous emphasis on specific diseases*

**By** Jenilee Guebert,  
Global Health  
Diplomacy Program,  
Munk School of  
Global Affairs

**P**rimarily healthcare, equity and respect for community voices underpin health promotion and disease management strategies at the level of both society and the individual. Community-based healthcare and primary healthcare constitute the core elements of any and all health strategies and systems. Primary healthcare ensures that sound medical methods and technologies are available to all who need them. Community-based healthcare involves community members in the design and implementation of care, empowering individuals to take their health into their own hands. Communities and individuals play an active role in their health and well-being, becoming partners and beneficiaries of the health services and outcomes they receive.

Effective community and primary healthcare keeps health costs down and improves the level of health and wellness. Such tools are particularly critical in the developing world, where the number of healthcare workers, services and infrastructure remain limited.

The G8 first noted the importance of supporting community-based approaches to health at Evian in 2003, the last time France hosted the summit. At the 2005 Gleneagles Summit, the leaders committed to investing in training community health workers as well as doctors and nurses. At the 2007 Heiligendamm Summit they acknowledged that community health workers were critical to fostering enabling, healthy environments in developing countries. They also emphasised the importance of strengthening primary healthcare. At the 2009 L'Aquila Summit, the leaders noted that "to advance the goal of universal access to health services, especially primary healthcare, it is essential to strengthen health systems through health workforce improvements, encompassing both health professionals and community health workers".

Indeed, the international community has long supported efforts to improve and utilise community and primary healthcare. The principle that "people have the right and duty to participate individually and collectively in the planning and implementation of their healthcare" was set out in the Alma-Ata Declaration in 1978. That principle lies at the foundation of the critical goal of providing health for all.

In 2006, health ministers and other government officials, as well as representatives from civil society

organisations and international organisations such as UNAIDS, UNICEF, the World Bank and the World Health Organization participated in a conference on community health in Africa. They committed to empower communities and strengthen community management structures, consumer activities and links to health service delivery systems. They pledged to refine their approach to community engagement and involvement in the planning, delivery and self-monitoring of healthcare interventions and to strengthen interactions between health services and the communities being served. They also promised to put in place mechanisms to share information and experiences and to strengthen partnerships and work together to translate national policies into concrete actions at the community level.

Community and primary healthcare are at the heart of every health commitment that the G8 and the broader global community make. Community and primary healthcare is essential for developing any public health system and for improving all health outcomes, whether it is administering antiretroviral medications for HIV, supplying bednets in regions where malaria is prevalent, educating mothers and children on the prevention and treatment of diseases or promoting wellness.

Primary and community healthcare are also critical for realising the pledges made at the 2010 Canadian-hosted Muskoka Summit to improve maternal, newborn and child health (MNCH). In developing countries facing the most severe MNCH challenges, community health workers and primary healthcare advance health efforts. In most areas, selected women attend training sessions on how to provide basic healthcare to mothers and children and are taught how to identify problems that require a higher level of attention. The health education provided in these sessions helps to discredit myths and emphasises prevention and wellness. These health workers rely on sound primary healthcare tools to address the challenges in their communities.

In preparing for the 2011 G8 Deauville Summit, French president Nicolas Sarkozy has committed to support regional university and health training programmes. These programmes should renew the focus on community and primary healthcare and indeed should broaden these components. Without them, all other interventions and commitments will remain under-realised. Drugs, vaccines



Effective primary healthcare keeps costs down and improves the level of health and wellness





and medical technologies must be available for effective treatment, and individuals need to know how to administer them properly. Information on treatment, prevention and wellness must be available and accessible – and cannot be effectively disseminated without the help of trusted and informed community members.

“Drugs, vaccines and medical technologies must be available, and individuals need to know how to administer them”

A paramedic checks blood pressure at a community health centre in Indonesia. Community healthcare is vital for improving all health outcomes

At Deauville, the G8 will release an accountability report on health and food security, to take stock of how countries are doing in meeting their past pledges. The leaders would be wise to note the levels of community and primary healthcare available in the regions they are targeting. Areas with low levels of accessible care will struggle to improve. Such situations need to be addressed, with interventions identified. Funds and commitments to resolve systemic health issues are necessary for improved health outcomes generally, in addition to the more specific diseases that the G8 has traditionally focused on. The G8 also needs to do a better job of utilising community-based health workers for monitoring interventions and outcomes.

At the Deauville Summit, the G8 should concentrate on providing global public goods and commit to providing health for all. To meet that promise the leaders will need to strengthen community and primary healthcare. Their summit is an opportunity to address these broader critical health issues and to correct their past emphasis on more specific diseases. It would be a shame to let such an opportunity go to waste. ♦



Project HOPE

# A chance for business to become more proactive

*The business community takes part in various healthcare initiatives. But one area where civil society in general needs to do more, and where business could scale up its action, is chronic non-communicable diseases – an increasing global problem*

**By** Jeffrey Sturchio,  
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**A**t their 2010 Muskoka Summit, G8 leaders pledged \$5 billion for the Muskoka Initiative to reduce child and maternal mortality and to increase access to reproductive health services. Other countries and private foundations committed another \$2.3 billion. G8 leaders anticipated that the initiative would “mobilise significantly greater than \$10 billion” by the G8 over the next five years.

Three months later, building on the Muskoka Initiative on Maternal, Newborn and Child Health, United Nations secretary-general Ban Ki-moon launched the Global Strategy for Women’s and Children’s Health with commitments of \$40 billion, an unprecedented effort to save the lives of 16 million women and children. The business community – led by BD, GE Healthcare, GlaxoSmithKline, John Snow, Inc, Johnson & Johnson, Merck, Nestlé, Novo Nordisk, Pfizer and ViiV Healthcare,

among others – was an important part of that initiative. Johnson & Johnson was already a strong supporter of women's and children's health through programmes such as the Global Campaign to End Fistula – a serious and painful disorder that develops when the blood supply is cut off during prolonged, obstructed labour.

The Global Strategy spells out how business is already helping to improve women's and children's health, and how it can do more in this area, as well as in other areas of global health:

- by serving as a valuable partner with the public sector, contributing expertise in service delivery and infrastructure;
- by innovating and developing affordable drugs, diagnostics and other technologies and health interventions;
- by providing financial support and showing pricing flexibility for products and services, especially in low- and middle-income countries (LMICs); and
- by ensuring community outreach and mobilisation, coordinated with healthcare workers.

Chronic non-communicable diseases (NCDs) such as cancers, diabetes, heart disease and acute respiratory disease – the focus of an upcoming UN summit in September – provide a particularly compelling case for private sector engagement. The burden of NCDs is growing rapidly in developing countries and now accounts for 63 per cent of all deaths globally and 80 per cent of deaths in LMICs.

“The risk from NCDs over the next decade exceeds that of the global financial crisis and, without action, is projected to increase”

The economic impact of NCDs is stark, as are its growing effects on the global burden of disease. Many NCDs – particularly in Africa, Latin America and the Caribbean, and South Asia – affect people during their most productive years. Accordingly, NCDs could cost an estimated \$1 trillion over the next ten years, according to the World Economic Forum's *Global Risks 2010*. This risk exceeds that of the global financial crisis and, without action, is projected to increase.

The private sector is already beginning to think about how to incorporate health promotion activities into its business operations. Wellness programmes, tobacco-free work environments and incentives for employees to live healthier lifestyles are all necessary to secure the long-term health of human capital.

Civil society, including the private sector, must play a critical role in the consultation process in preparation for the UN Summit, just as it has – successfully – in the fight against HIV/AIDS and other infectious diseases over the past decade. Not only does the private sector play a significant role in addressing NCDs over the long term, but it is already engaged in the fight.

Working with partners through the World Economic Forum, Medtronic and PepsiCo have led the development of a framework for corporate engagement in NCD prevention and control, whatever business sectors the company is in. But to match the scope of the NCD challenge, these actions need to be scaled up greatly. An

ideal outcome of the summit would be to recognise that public-private partnerships – matching the capabilities and resources of private sector and other civil society actors with the scope of the public sector – are a proven, effective way to combat NCDs.

Here are a few examples of how the business community is already taking action on NCDs:

- The Medtronic Foundation has committed significant support to raise awareness and increase the priority given to NCDs in national and global development agendas, to strengthen health systems in developing countries by integrating NCDs and to improve global understanding of best practices in cardiovascular disease and diabetes.
- PepsiCo has committed to remove full-sugar soft drinks from primary and secondary schools by 2012, to contribute to reducing calories sold by 1.5 trillion by 2015, to reduce sodium and added sugar in key brands and countries by 25 per cent by 2015/20, and to increase the whole grains, fruits, vegetables, nuts, seeds and low-income dairy in its product portfolio.
- For 10 years, the Abbott Fund and the government of Tanzania have worked to strengthen the country's healthcare system and address critical needs such as infectious and chronic diseases. To date, the Abbott Fund has invested more than \$85 million to modernise treatment centres, train health workers and standardise modern laboratories.
- Sanofi-Aventis supports programmes on diabetes, cancer, epilepsy and mental health, including one to help improve diabetes disease management in conjunction with Handicap International and national non-governmental organisations, and another programme to fight childhood cancers.
- Merck & Co has pledged to donate at least three million doses of Gardasil – a vaccine to prevent human papilloma virus infection – over five years in developing countries. These doses will support immunisation against cervical cancer, which affects the lives of more than 500,000 women a year, 80 per cent of whom live in developing countries.
- Pfizer works on cancer and tobacco control in countries including China, one of the world's largest cigarette producers and the world's largest cigarette consumer.
- In 2009, Novartis supported the Cancer Advocacy and Learning Initiative, implemented by the Global Health Council and others, to raise awareness and quantify the burden of cancer in developing countries and to encourage collaboration on cancer treatment.

Increasingly, businesses see it is in their own interests – as producers, employers and community members – to address global health issues such as obesity and the NCDs to which it gives rise, as well as to address the risk factors that lead to diabetes, cancers and cardiovascular disease and to help people manage chronic conditions better.

Despite the salience of this issue, NCDs are not on the G8 agenda this year. The G8 leaders must honour their Muskoka commitments on maternal and child health, but must also acknowledge at their Deauville Summit the critical and growing need to address NCDs. The G8 should take up the call at future summits, beginning with the 2012 G8 meeting in the US. Given the economic and human toll that NCDs are already imposing on the world, they are a major global health issue, and tackling them is increasingly central to ensuring a more stable and secure world.

September's UN Summit on the NCDs presents a promising opportunity to review the issues and turn commitments into action. Businesses, together with their partners in civil society, plan to engage actively to persuade, and show by example, that public-private partnerships are essential to curb the burden of NCDs in developed and developing countries alike. ♦