



**I  
get HIV  
soon  
I  
going  
to die**

# Unexpected Consequences

Jacob lives in West Africa. He appears every week at his local HIV clinic and asks to be tested. Each week, so far, the test has been negative and each time Jacob is devastated by the news.

The rest of Jacob's story is that he contracted hepatitis B from his mother at birth. The virus has progressively damaged his liver and he now has decompensated cirrhosis. There is a drug that has been shown to reverse decompensated cirrhosis but Jacob cannot afford it. The drug, however, is also used to treat HIV and is available as part of his country's internationally-funded HIV/AIDS programme. Jacob knows that his liver disease will kill him unless he can get access to this drug – his chances of surviving another year without treatment are just 30% – so naturally the most important aim in his life is to contract HIV. Unfortunately for him his country has low rates of HIV.

In Eastern Europe in some countries where HIV/hepatitis C co-infection is common, internationally-funded HIV/AIDS programmes provide treatment not just for HIV but also for advanced hepatitis C, since what is the point of suppressing one virus simply to let the other kill? In those countries there is no program for those mono-infected with hepatitis C. So again, for those with cirrhosis progressing towards inevitable liver failure or liver cancer, HIV is, ironically, the present they are hoping for.

The perversity of systems that can make contracting HIV a life-saver has come about not least because of the way that viral hepatitis, especially hepatitis B and C, has been ignored. With the exception of hepatitis B vaccination, up until 2010 viral hepatitis was not addressed at a global level. This is extraordinary considering 500 million people are living with chronic hepatitis B or C and 1 million die annually as a result; indeed new figures due out later this year may put deaths nearer to 2 million.

The World Hepatitis Alliance was set up in 2007 as an umbrella NGO of community groups worldwide to advocate for action. It became clear that the vast majority of countries accepted the need even if many were daunted by the size of the problem: 96% of low income countries in a global survey conducted by the Alliance for WHO in 2009 (Viral Hepatitis: Global Policy) described hepatitis as an urgent public health issue and 91% of all countries in the survey wanted assistance from WHO in at least one aspect of addressing the issue.

A year later in 2010 the World Health Assembly at last adopted a comprehensive hepatitis resolution. As a result there is now a Global Hepatitis Programme at WHO, a dedicated hepatitis team and a global hepatitis prevention and control strategy. Unusually, the resolution also established an official World Hepatitis Day on July 28th, only the fourth disease-specific official WHO day. The others are for AIDS, TB and malaria.

HIV/AIDS, TB and malaria are, of course, the three infectious diseases that the Global Fund was established to 'fight'. Hepatitis does not feature. Nor does it feature in the Millennium Development Goals, even though the majority of hepatitis is found in the developing world with prevalence rates varying from 5% to more than 20%. Indeed, the very belated acceptance of the need to address hepatitis means that it does not feature to any significant degree in the plans of any of the major global donors.

Unless this changes, unless hepatitis is seen as equally deserving of funding as the other three major infectious diseases, people like Jacob will continue wanting to contract HIV. That is not just perverse; it is unacceptable.

[www.worldhepatitisalliance.org](http://www.worldhepatitisalliance.org)

World Hepatitis  
Alliance



# Shared values, shared responsibility: G8 and Africa's response to AIDS

**Stories of hope and progress across the continent demonstrate what is possible when political will and social movements work together for change**

By Michel Sidibé, executive director, UNAIDS

**A**s the G8 meets in the United States, it faces another formidable agenda – one crowded with long-standing development challenges, enduring conflicts and emerging crises. The ongoing economic predicament adds another layer of complexity and adversity to its task.

Two stories stand apart from this narrative. Stories of hope and progress that were unthinkable 10 years ago: Africa and AIDS.

Africa's gross domestic product is expected to grow by nearly six per cent in 2012, about the same as that of Asia. More than half the countries on the African continent are reported to be delivering improved governance, particularly in economic and human development. Growth and stability have lifted millions of Africans out of poverty. Together, these shifts have enabled the beginning of a dynamic cycle of domestic growth and social development.

The African AIDS response provides another manifestation of African progress and reveals what is possible when political will and social movements converge. Globally, investments for AIDS increased by more than 900 per cent since 2001, reaching \$16 billion annually in 2009. As a result, more than five million people in sub-Saharan Africa receive antiretroviral therapy today – up from just 50,000 in 2002. Countries across Africa are seeing reductions of more than 25 per cent in the rate of new HIV infections.

Much of this progress can be credited to the leadership of the G8, which has given rise to some of the most game-changing advances in the history of the response. At the Okinawa Summit in 2000, G8 leaders joined in a historic commitment to combat infectious diseases, leading to the establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria, which has approved more than

\$22 billion to fight the three diseases. In 2005, G8 leaders made the landmark commitment “to provide as close as possible to universal access to treatment for AIDS by 2010” – catalysing a massive surge in treatment.

The partnership between the G8 and Africa continues to evolve. At the last summit in Deauville in 2011, G8 and African leaders issued “Shared Values, Shared Responsibility”, their first joint declaration. Emphasising a collective commitment to peace, human rights, democratic governance, sustainable development and mutual accountability, it marked a significant step in development cooperation – that Africa's development is indeed a shared responsibility.

## Advancing a new, more relevant agenda

In 2012, however, the AIDS response confronts a critical paradox. Just as the response is registering unprecedented gains, investors are pulling back. For the first time, international assistance for AIDS decreased, from \$8.7 billion in 2009 to \$7.6 billion in 2010. Despite the G8's Deauville commitment, the Global Fund was forced to cancel its next round of grant-making due to financial constraints. Thus there will be no new Global Fund financing until at least 2014.

The major resource shortfall comes at a time when United Nations members have committed to place 15 million people on HIV treatment, eliminate new infections in children by 2015 and close the resource gap.

It is a tragic irony that this is the moment when the latest science shows that treatment not only saves lives, but is also a critical mechanism to prevent the spread of the virus. It comes at the moment when programmatic progress and scientific advancements have inspired global leaders to speak of “the beginning of the end of AIDS”. Now is the time for the G8 to renew its leadership in



Young people orphaned by AIDS carry food sacks given to them by the United Nations. Members aim to eliminate new HIV infections in children by 2015



In Africa, millions of lives are wasted  
every year – cases and deaths,  
preventable.

President  
**Jakaya Mrisho Kikwete**  
of Tanzania and founding  
Chair of ALMA.

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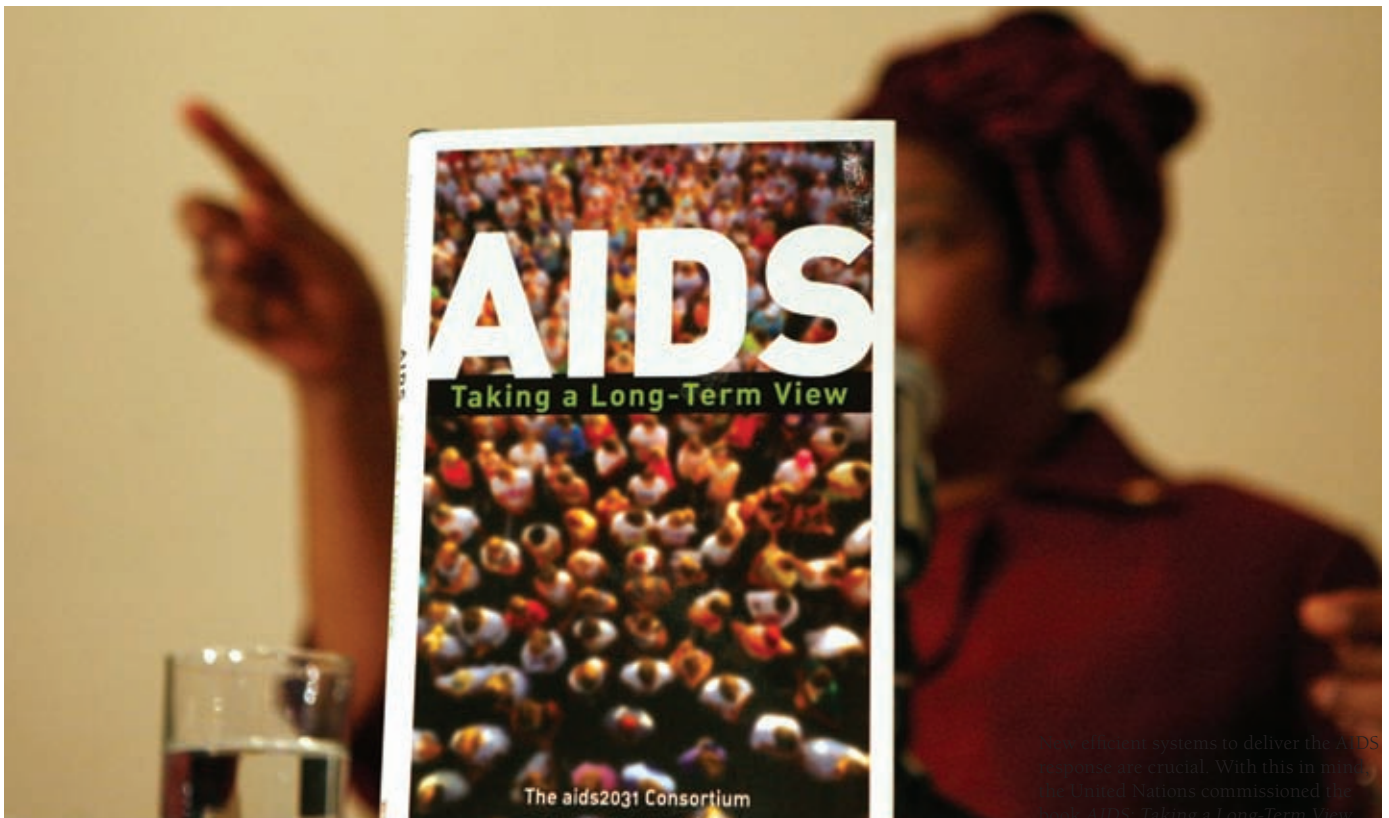
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**Ellen Johnson  
Sirleaf** of Liberia,  
Nobel Prize Winner  
and Chair of ALMA.

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the AIDS response. To pull back would be to drastically shortchange the returns on its investments – investments intricately linked to Africa's development. Investing in AIDS leads to healthy cohorts with economic returns. At an individual level, it means higher productivity and savings in medical and other costs. These gains translate into a healthier, more powerful market in Africa, which is increasingly integrated in the global economy. Conversely, to pull back would be to face the prospect of abandoning the millions of people on life-saving treatment and nearly 15 million AIDS orphans in Africa – a social injustice that would fuel frustration and create a recipe for social and political instability.

Africa's expanding strength, economically and geopolitically, provides a solid footing to begin to set a more sustainable agenda for AIDS. Now is the time to use aid to build country ownership of development finance and strengthen indigenous institutions in Africa. African leaders such as Boni Yayi, president of Benin and chair of the African Union, and Meles Zenawi, prime minister of Ethiopia and chair of the New Partnership for Africa's Development, are championing shared responsibility for Africa's AIDS response.

Advancing a new, more relevant agenda with Africa on AIDS will enable the G8 to maintain its leadership on this highly visible, successful and high-stakes international issue, in an increasingly complex development landscape. Now is the time to take three concrete steps to realise the promise of the G8's and Africa's shared values and shared responsibility agenda. First, the G8 must face

up to the fact that the AIDS response, one of the most successful global health campaigns in recent history, is in the midst of a funding crisis. While sustainable funding solutions must be sought, the G8 should take immediate action to mobilise new funds for the Global Fund to prevent any backsliding from the gains that have already been made.

Second, the crisis offers an opening to aggressively pursue innovative mechanisms

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***The AIDS response, one of the most successful global health campaigns in recent history, is in the midst of a funding crisis***

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for generating new resources for Africa's AIDS response. The G8 and African leaders should consider jointly developing transitional plans for sustainable financing.

Such plans would serve as a platform to secure long-term predictable international investments, as well as diversify funding sources by further tapping national budgets, private-sector contributions, social health insurance and other innovative financing mechanisms to deliver more sustainable investment solutions.

Third, to further reinforce African leadership, novel solutions to building more efficient and sustainable systems for delivering the AIDS response are crucial.

One such solution lies in the establishment of an African medicines regulatory agency. G8 countries may provide knowledge, technical and financial support to create such an agency in order to facilitate faster, more efficient roll-out of quality-assured medicines, including antiretrovirals. The current lengthy regulatory approval cycle in Africa – caused by low capacity and inefficient processes – contributes significantly to the slower uptake of novel health solutions, wasting resources and costing countless lives.

Another solution is to establish and strengthen, including through technology transfer, regional and continental centres of excellence in research, development and the production of medicines. Such an investment will quicken Africa's industrial development, as well as secure long-term access to medicines. Jointly investing in these sustainable solutions is a veritable manifestation of shared values and should be considered a *sine qua non* of the principle of shared responsibility.

Let the AIDS response continue to be an emblem of the capacity of the G8 to channel its expansive influence for social justice. With Africa on the rise, and the ever-quickening gains made in the response, the end of AIDS is an increasingly tangible prospect.

Let us respond to this crisis with the urgency it demands, yet also heed its lessons and cultivate a debate between the G8 and its development partners in order to establish a more relevant, sustainable and equitable development paradigm that is based on the principle of shared responsibility. ■

# Investing in nutrition security is key to sustainable development

**Tackling the issue of early chronic nutritional deficiency must be prioritised if the potential both of children and poor countries is to be realised**

By Anthony Lake, executive director, UNICEF

**T**he condition known as stunting – the irreversible result of chronic nutritional deprivation during the most critical phase of child development – may be among the least understood and least prioritised development issues today.

It represents a huge moral and practical challenge. It is also one of the greatest opportunities for G8 members to help developing countries – and their children – to reach their potential.

The news that hundreds of millions of children are at risk – of death, of a life shorter than that of their peers, of poorer cognitive capacity and thus less ability to learn in school and earn as adults – should command headlines and compel immediate action.

And yet the condition that affects these children – stunting – is still relatively unknown among many development professionals, health and education ministers – even among medical practitioners.

Stunting is the irreversible outcome of chronic nutritional deficiency during the first thousand days of a child's life, from conception through pregnancy to the age of two. The damage it causes to a child's development is permanent – and the cumulative effect it can have on a country's development is considerable.

Stunted children are inches shorter than they could have been with proper nutrition. Their immune systems are weaker, leaving them more vulnerable to disease. A stunted child is up to five times more likely to die from diarrhoea – a condition which kills more than 3,000 children under five every day around the world.

The condition affects far more than the body. It also inalterably affects the development of the brain. If one compares the brain cells of a well-nourished child with those of a stunted child, the difference is apparent, even to an untrained eye.





# The value of vaccines

It's no surprise that the lives of children born in the G8 countries and those born in the countries with the highest child mortality lie in stark contrast. Poverty and disease will claim the lives of many in the latter, and inevitably shape the lives of those who survive, affecting their ability to enjoy healthy childhoods, survive to become adults, have families of their own and contribute to their nation's economies.

But with a long list of problems facing poor countries and the world slow to recover from a shaky economy, how can we ensure that investments to improve the prospects of children make both good economic and moral sense? For governments and individuals looking for both social justice and economic returns, investment in childhood vaccination is a best bet.

These savings accrue wherever investments in childhood immunisation are made. In the US, according to researchers from the US Centers for Disease Control and Prevention (CDC), every dollar spent on immunisation saves more than \$5 in direct medical costs, with an aggregate savings of approximately \$10 billion. When also including indirect costs to society, such as losses due to missed work, death and disability, this saving jumps to \$11 per dollar, producing societal aggregate savings of \$43.3 billion<sup>1</sup>.

Savings accrue wherever investments in childhood immunisation are made, but the power and value of vaccines are greatest in the places where children have the greatest risk of dying early in life. Consider that in 2010, about 69,000 children died before reaching their fifth birthday in G8 countries, but the eight countries that account for the highest number of child deaths worldwide experienced more than 60 times as many child deaths, ending the year with a staggering 4,201,000 fatalities<sup>2</sup> – one child every eight seconds.

## The figures tell the story

A study conducted by my team at the International Vaccine Access Center (IVAC) at the Johns Hopkins Bloomberg School of Public Health reveals that the return on an investment in immunisation in even just these eight countries – India, Nigeria, Democratic Republic of Congo, Pakistan, Ethiopia, Afghanistan, Indonesia and Sudan – would be substantial. We found that

scaling up to 90 per cent coverage of vaccines for five childhood diseases would save 3.8 million young lives<sup>6</sup> and avert \$99 billion in costs and economic losses<sup>3</sup> by the year 2020 – equivalent to the money required to feed 362 million poor children for an entire year<sup>4</sup>. As noted poignantly by *The Economist*: “The dispassionate economic case for vaccination... looks at least as strong as the compassionate medical one.”<sup>5</sup>

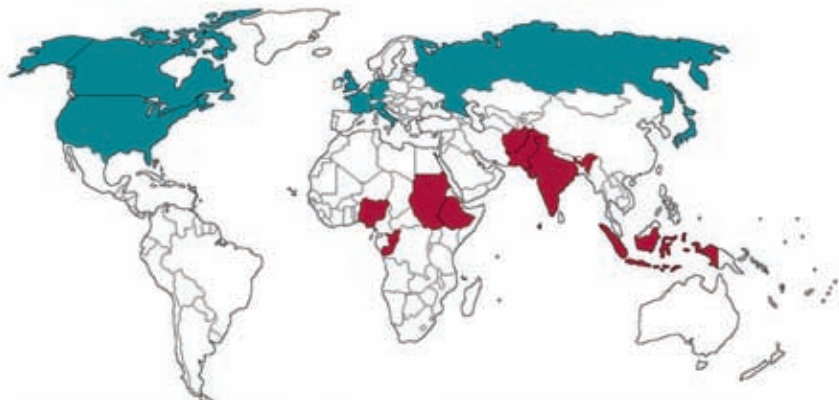
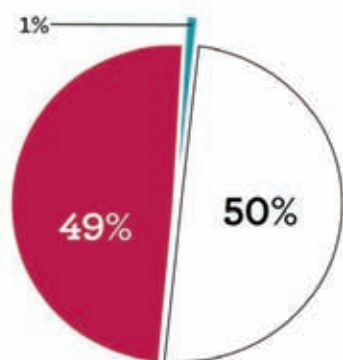
As scholars have noted, the experience of development in the past 50 years shows that good health can fuel economic growth, just as bad health can strangle it. Healthy children perform better in school, healthy adults are more productive at work, healthy families are more likely to have fewer offspring and save for the future, and healthier societies are a stronger magnet for investment than those in which the threat of disease is constant<sup>6</sup>. Studies also show that no period in a person's life is more critical to their future health and opportunity than their first five years<sup>7</sup>. When children are given the tools to help ensure they can grow, learn, and thrive, opportunities for achievement at the individual

## The power and value of vaccines are greatest in the places where children have the greatest risk of dying early in life

level and for a country's future economic development are brought into sharp relief. Vaccines are chief among these tools, and are widely considered by economists to be among the best buys in global health.

Consider that smallpox, which had killed two million people per year until the late 1960s, was wiped out by 1979 after a massive worldwide immunisation campaign<sup>3</sup>. And that vaccination has brought us to the verge of eradicating polio, a crippling disease that once infected hundreds of thousands of people around the world each year, but now remains endemic in only three countries<sup>8</sup>. By expanding access to vaccines that are available now, we have the power to drastically reduce child mortality while providing a

## CHILD MORTALITY: A GLOBAL COMPARISON\*



■ G8 countries ■ 8 countries with the most child deaths □ Remaining 180 countries

\*WHO child mortality estimates, 2008

platform to help lift families, communities and even entire nations out of poverty.

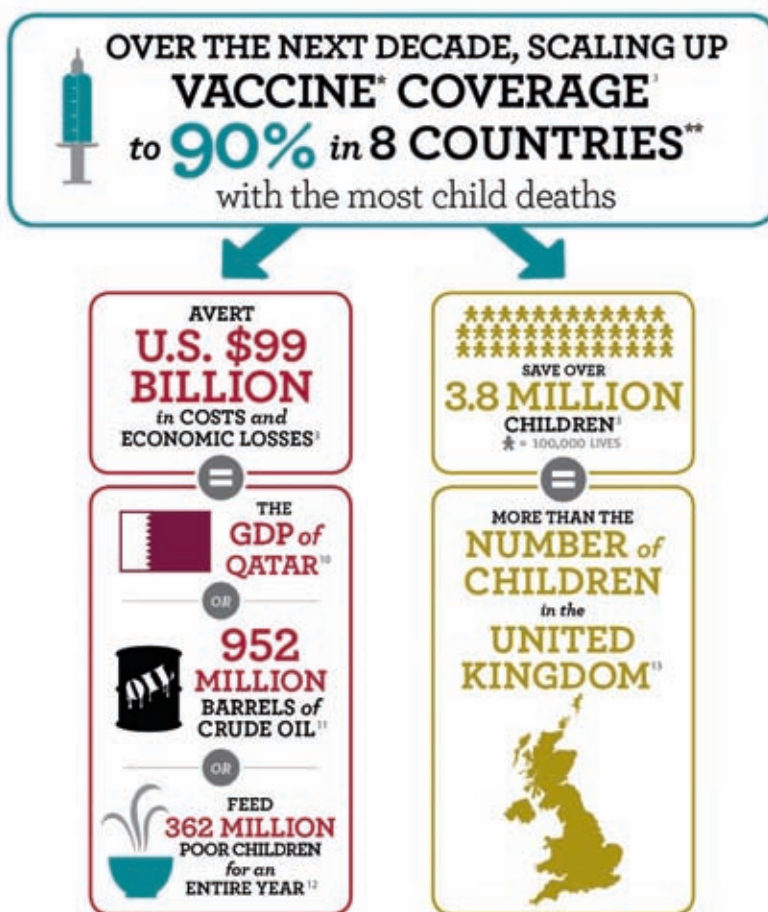
So, how can G8 governments do their part, while investing in ways that achieve the highest return? First, it is easy to recognise the value of vaccination when presented with dollar figures and drastically diminished death rates. Allowing us to do this, however, requires reliable disease surveillance and a strong research base. The information gleaned from surveillance and research provides crucial evidence of the health and economic returns of vaccination, which in turn fuels local investments in vaccination by developing country governments.

Next, G8 countries must continue funding an entity that expertly leverages the very best of public health and private-sector know-how: the GAVI Alliance. GAVI is a public-private partnership that utilises innovative market-based solutions to enable sustainable supplies of vaccines to reach children in developing countries. The results generated by GAVI's work are clear and calculable, as demonstrated by rising rates of immunisation and falling costs of vaccines.

### The G8 governments have made a difference

Since the GAVI Alliance was formed in 2000, an estimated five million deaths have been prevented as a result of vaccines they have made available to developing countries at a reduced cost<sup>9</sup>. By committing to fully funding vaccinations in countries eligible for GAVI support through to 2015, G8 countries can make a palpable difference in the lives of children in the countries eligible for GAVI assistance, protecting them from killer diseases such as pneumonia and diarrhoea, and helping to prevent up to four million child deaths<sup>10</sup>.

It is easy to focus on the differences. But the effort to bridge the gap between children in G8 and low-income countries does not require a hard choice. Governments must commit to full funding of GAVI through to 2015, so that proven, practical



\*Hib, malaria, measles, pertussis, pneumococcal and rotavirus vaccines, 2011-2020  
 \*\*India, Nigeria, Democratic Republic of Congo, Pakistan, Ethiopia, Afghanistan, Indonesia and Sudan (China not included)

vaccines can produce exponential benefits in proportion to their costs. Perhaps the best benefit of this investment is the knowledge that millions of healthy children will grow into hardworking adults, and help catalyse growth in developing nations that will help ultimately strengthen all of us.

*Dr Orin Levine is Professor of International Health and Executive Director of the International Vaccine Access Center (IVAC) at the Johns Hopkins Bloomberg School of Public Health. IVAC's mission is to accelerate global access to life-saving vaccines through the development and implementation of evidence-based policies. To learn more visit [www.jhsph.edu/ivac](http://www.jhsph.edu/ivac) or follow @OrinLevine on Twitter.*

#### Footnotes

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These deficits in brain-cell size and connectivity translate to a loss of between two to three years of learning. Later, when such stunted children enter the workforce, their diminished physical and cognitive development can reduce their earning capacity by as much as 22 per cent.

In dozens of countries, up to 40 per cent of children suffer from stunting. In six countries, more than 50 per cent suffer from this condition. In Afghanistan, 59 per cent of children under five are stunted.

#### **A condition that is easy to combat**

The burden is not restricted to poor or food-insecure countries. In India, a middle-income, food-secure country, nearly half of all children under five are stunted. Widespread in middle- as well as lower-income countries, stunting is among the most glaring inequities in the world. It most affects the poorest children, who are three times as likely as the richest children to be stunted.

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### ***The news that hundreds of millions of children are at risk – of death, of a life shorter than that of their peers, of poorer cognitive capacity and thus less ability to learn in school and earn as adults – should compel immediate action***

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Stunting is so common that it is sometimes mistaken for genetic heritage. It is not. But, while not hereditary, stunted women are more likely to give birth to stunted children as a result of their own nutritional deprivation. This passes the tragedy of stunting from generation to generation – and helps to perpetuate the cycle of poverty.

Around the world 180 million children under five suffer from this terrible affliction. The full measure of this loss cannot be calculated, and the short- and long-term economic costs of this silent emergency cannot be ignored. The World Bank estimates that countries that are blighted by stunting and other consequences of under-nutrition lose at least three per cent of their gross domestic product, and billions of dollars in foregone productivity, as well as on avoidable healthcare spending.

The good news is that the solution to combating stunting is known – for example, by providing extra micronutrients such as vitamin A, zinc, iron and iodine. These are all easy to deliver and highly effective. They are also highly cost-effective. So, of course, is breastfeeding. In 2008, eight leading

economists, including five Nobel laureates, in the Copenhagen Consensus, recommended priorities for confronting the top 10 global challenges. They ranked providing young children with micronutrients as the most cost-effective way to advance global welfare. Delivered together with efforts to promote exclusive breastfeeding for a child's first six months and to improve infant feeding practices, these interventions can change a child's life.

These strategies are working. In the developing world, stunting prevalence fell from 40 per cent in 1990 to 29 per cent in 2008. This is encouraging, but by no means enough. It has not saved the 180 million children suffering from stunting today. And it will not prevent hundreds of millions of other children from suffering from the condition. More needs to be done. The time has come to recognise nutritional status as a marker of progress in development and also as a maker of progress – and a key to more sustainable development. Governments must invest in programmes to prevent stunting or risk diminishing the impact of other investments in education, health and child protection.

To accelerate global progress on nutrition, a movement is needed, driven by the countries that bear the greatest burden of stunting, supported by governments, international agencies, civil society, academia and the private sector, and made possible by communities themselves – a shared commitment to combat this terrible condition.

That movement now exists: the Scaling Up Nutrition (SUN) movement. SUN was established in 2010 to accelerate global progress on under-nutrition, especially stunting and acute malnutrition. It has already brought together more than 100 partners working to encourage, coordinate and improve the effectiveness of support for countries that have pledged to put nutrition at the centre of their national agendas.

#### **'Early risers' in the SUN movement**

Already, leaders in 26 developing countries have joined SUN. These 'early risers' are reviewing their policies and programmes through the lens of improving nutrition. Some are reviewing their budgets to increase allocations for nutrition programmes.

It is still too soon to see direct results, but the early signs are promising. The momentum is growing – and must be built on. For a start, leading countries should allocate a larger percentage of their development budgets to support pro-nutrition programmes and interventions, paying special attention to the most disadvantaged. These include expanding micronutrient delivery, promoting exclusive breastfeeding for the first six months and improving child-feeding practices.

They also include community-based efforts to improve water, sanitation and hygiene and to treat common infectious diseases such as diarrhoea – the second largest cause of mortality in the under-fives. More than



80 per cent of all diarrhoeal diseases in children are caused by fecal contamination. Just as stunting increases a child's risk of dying from diarrhoea, the disease inhibits the absorption of critical nutrients, which then increases the chance of stunting.

Together, governments, international agencies and non-governmental organisations should improve their collective ability to implement, as well as monitor, the results that these programmes are achieving,

Encouraging small-scale farmers to grow more diverse crops would bolster efforts to improve nutrition in developing countries



identify the barriers to progress and coordinate efforts to overcome them. This, in turn, maximises the effectiveness of aid dollars and budget allocations at a time when economic adversity makes every dollar count more than ever.

In addition, although the difference between food security and nutrition security must be recognised, the policy and programme linkages in efforts to achieve both must be strengthened.

#### **The importance of agriculture**

Supporting small-scale farming in developing countries is an important element of a food security policy. But governments can do more than enable small-scale farmers to buy seed and fertiliser. They can also advocate for greater diversity – more nutritious crops, more plentiful sources of protein and more production of staples such as vegetable oil.

Finally, more countries should join the growing SUN movement. Of the G8 countries,

Canada, France, the United States and the United Kingdom are members. The G8 can send a strong signal about its commitment to sustainable development by making its membership unanimous – and, in doing so, encourage others to follow.

Together, we can make nutrition a global priority – and stunting a thing of the past. This is a cost-effective opportunity for a big global development win – an opportunity that nobody can afford to lose. ■

We've  
found a way  
to reverse  
the global  
diabetes  
epidemic.

**Your  
leadership.**



# If we fail to act, 552 million people could have diabetes by 2030.

Diabetes is truly a global epidemic. With 366 million people already living with diabetes, the disease is putting a strain on healthcare systems globally and on our economies. In the U.S. alone, the cost is over \$218 billion annually — contributing to a total worldwide price tag of \$465 billion.

We can reverse this course. But to do so, we need strong global leadership more than ever before.

## The world must live up to its promises.

In 2006, the UN General Assembly passed Resolution 61/225. For the first time, diabetes was publicly recognized as a chronic, debilitating and costly disease.

In 2011, the world went further. The United Nations High-Level Meeting on the Prevention and Control of Non-communicable Diseases (NCDs) defined the social and economic challenges, officially placing diabetes on the global health agenda.

## The UN stressed that prevention must be the cornerstone of the global response to diabetes.

### Our policy is action.

Novo Nordisk is committed to improving conditions for the millions who live with diabetes today, and preventing the spread of the disease tomorrow.

## “We believe the pledge by UN Member States should be translated into concrete action to address the threat diabetes poses.”

*Novo Nordisk President and CEO  
Lars Rebien Sørensen*

- Novo Nordisk’s Global Changing Diabetes® Leadership Forums have gathered participants from 78 countries and engaged more than 10,000 key stakeholders to address current challenges and work to change the future course of diabetes.
- Novo Nordisk co-founded the Diabetes Advocacy Alliance™ (DAA), a U.S.-based coalition with a goal to influence change in the U.S. healthcare system to improve diabetes prevention, detection and care. Ultimately, we must elevate diabetes on the national policy agenda.
- Novo Nordisk created the World Diabetes Foundation, a long-term commitment to creating awareness and expanding access to diabetes treatment and care in developing countries.
- In 2011, Novo Nordisk either trained or sponsored training for about 835,000 healthcare providers to diagnose and treat diabetes.
- In the U.S., a national education program, Ask.Screen.Know., highlights the need for early diabetes screening and detection and has reached millions of Americans across the country. Worldwide, the Changing Diabetes® Bus promoted the early detection of diabetes, screening more than 135,000 people across five continents.

Canada  
France  
Germany  
Italy  
Japan  
Russia  
United Kingdom  
United States

Total projected number of people in G8 countries with diabetes in 2030  
**74.9 million**

| Developing Country | 2030 total projected number of people with diabetes | Percentage increase from 2011 to 2030 |
|--------------------|---|---------------------------------------|
| China              | 129.7 million                                       | 44.1%                                 |
| India              | 101.2 million                                       | 65.1%                                 |
| Brazil             | 19.6 million  | 58.1%                                 |
| Bangladesh         | 16.8 million  | 100%                                  |
| Mexico             | 16.4 million  | 59.2%                                 |

## We call on all world leaders.

Through global leadership, Novo Nordisk is making diabetes a priority. Join us and together, we can reverse this epidemic.

**For more information on the global diabetes epidemic and best practices, visit [changingdiabetesbarometer.com](http://changingdiabetesbarometer.com).**

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# The 'O Generation': tackling the childhood obesity epidemic

## Measures are in place to confront the problem of poor diet and reverse a health trend that holds deep economic implications for future generations

By Mirta Roses-Periago, director, Pan American Health Organization

**W**ith childhood obesity rates doubling or even tripling over the past 20-30 years in most countries, the next generation could become the 'O Generation'. Many gains in child health would be reversed if present trends continue. Paradoxically, this overweight and obesity phenomenon is often accompanied by micronutrient deficiencies and anaemia from diets that are dense in calories but poor in nutrients, combined with lower levels of physical activity. This situation holds deep economic implications, in addition to the health problem: if the next generation is more overweight, less fit and less healthy, it will not learn as well and will incur higher healthcare costs over a lifetime, in turn affecting productivity and efforts to achieve fiscal consolidation.

The Region of the Americas is already the world's most overweight. The Let's Move! campaign launched in the United States by First Lady Michelle Obama aims to reverse the epidemic of childhood obesity in a single generation through joint action across government departments, the business community and civil society.

This is an example of political leadership to safeguard the next generation. But the problem extends well beyond the United States: most countries in Latin America and the Caribbean, and indeed in much of the world, are also experiencing upward trends in childhood and adult overweight and obesity, which are increasingly concentrated among the poor and less educated population sectors and thus are deepening social inequality.

Obesity is simply a subset of a much bigger problem, the largely silent epidemic of non-communicable diseases (NCDs) – namely, cancer, diabetes, heart disease and stroke, and chronic respiratory disease. Fortunately,

the world is now rising to the challenge. The historic United Nations High-Level Meeting (UNHLM) held in New York in September 2011 placed NCDs on the development and economic agenda for all countries.

While the most rapid increases in these diseases are taking place in the low- and middle-income countries, those countries that are members of the Organisation for Economic Co-operation and Development (OECD) also face a heavy burden of NCDs and an ageing population with increasing health costs, which will serve to undermine their fiscal consolidation agendas.

### A crucial step forward

The UNHLM declaration sets out objectives for NCD prevention and control, including:

- By the end of 2012, the World Health Organization (WHO) will have developed a comprehensive global monitoring framework and voluntary targets, and the UN secretary-general will have developed proposals for global partnership;
- By the end of 2013, the members of the UN will have developed or strengthened multisectoral national plans; and
- In 2014, the secretary-general will have to report comprehensively on progress.

Having an accountability architecture is key to the success of summits, by providing metrics and setting responsibilities for action.

Thus, the process that WHO is leading to develop an effective global monitoring framework that includes goals and targets that countries are able to realistically adopt, is a crucial step forward.

The current global monitoring framework includes measures of changes in outcomes and exposures and the national response. Proposed voluntary targets to be achieved by 2025 and currently under consultation

with WHO members include a 25 per cent reduction in mortality between the ages of 30 and 70 due to cardiovascular disease, cancer, diabetes and chronic respiratory disease; reductions in risk factors such as hypertension (25 per cent), tobacco (30 per cent), salt consumption (30 per cent) and physical inactivity (10 per cent); and disaggregating all indicators by gender, age, socioeconomic position and other relevant stratifiers.

### Preventive treatment

Given the need for a multisectoral response to NCDs, a clear corollary of the UNHLM declaration is that achieving these targets will demand 'all-of-government' and 'whole-of-society' approaches that confront head on the enormous health and economic challenges

***In many parts of the world, countries are experiencing upward trends in childhood and adult obesity, which are concentrated among the poor***

involved. Governments bring to the table their stewardship and responsibility for public policy, regulation and taxation, both at national and at local/municipal levels. Civil society brings its local know-how, legitimacy, networking, advocacy and community education efforts. The business sector brings products and services, technical knowledge and capacity, as well as obligations for social responsibility. Media outlets bring their ability to create awareness and mobilise.

The international financial institutions have a responsibility for contributing to support development, and NCDs are an undeniable obstacle to the continued development that they all want.

So, all hands are needed on deck to succeed in translating the UNHLM declaration into action in order to confront the NCDs epidemic. That is why the Pan American Health Organization has launched the Pan American Forum for Action on NCDs, with the participation of core partners such as the Public Health Agency of Canada, the



Campaigners in the US aim to reverse childhood obesity in a single generation, through joint action with government, local people and business communities



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Obesity is believed to be a largely silent epidemic of diseases, having a dramatic impact on our lives. Advice on good food choices is key to solving this problem.

World Economic Forum, the Spanish Agency for International Development Corporation, as well as other organisations.

The forum brings together government entities, the scientific and academic community, the business sector, international organisations and civil society – including faith-based organisations. Together they will raise awareness, help to promote innovative initiatives and scale up successful practices for NCDs prevention and control, as well as promote health at all levels, whether local, national or hemispheric. This strategy is relevant to each and every country's ability to intensify action on NCDs.

The forum will serve as an example of multi-stakeholder responses to the epidemic, called for by the UNHLM, and will work to

raise NCDs to the highest level of political attention nationally and regionally.

It will also build capacity for mobilising partners and resources and will develop strategic alliances to support effective NCDs prevention and control measures and the promotion of healthy living and well-being.

Taking into account a core set of low-cost, high-impact NCD 'best-buy' interventions identified by WHO, the forum's initial focus will include: communication and advocacy, dietary salt reduction and healthy nutrition, the scaling up of cardiovascular disease preventive treatment, the control and prevention of cervical cancer, and promoting physical activity and healthy workplaces.

The world can no longer afford a 'business as usual' mentality regarding NCDs. Inaction

would have a staggering cost. Over the next two decades, the toll from NCDs will exceed \$30 trillion in healthcare costs, lost productivity and personal medical expenses.

#### **Time to act decisively**

Tackling this challenge is, therefore, fundamental to fostering the well-being of every country's populations, alleviating fiscal pressures caused by rising healthcare costs, and preserving and stimulating the nation's productivity. The time has come for G8 members, and indeed, all world leaders, to take advantage of this opportunity to act decisively now, by promoting and adopting an all-inclusive multisectoral approach to the problem, one which will succeed in dealing with the silent epidemic of NCDs. ■

# Strengthening maternal, newborn and child health: the next steps

## How G8 leaders can strengthen global commitment to worldwide health goals and improve the chances of those most vulnerable to preventable disease

**By** Julio Frenk, chair, The Partnership for Maternal, Newborn & Child Health; dean, Harvard School of Public Health

**W**hen the G8 leaders gather at the US presidential retreat of Camp David in May, it will mark their third summit since the 2010 Canadian Summit, where the historic \$5 billion Muskoka Initiative on Maternal, Newborn and Child Health (MNCH) was launched.

Last year, during the G8 Deauville Summit in France, I referred to Muskoka

as 'a game-changer in terms of donor commitments' to save the lives and improve the health of pregnant women, newborns and children under five – the three groups most vulnerable to preventable disease.

The Deauville Summit focused on the accountability of these commitments, which is critically important to ensure that the necessary momentum and progress are maintained. It took place at the same time as the Commission on Information and

Accountability for Women's and Children's Health was completing its work. The 10 clear recommendations and 11 related indicators that came out of the commission will allow progress to be tracked year by year, alongside the G8's accountability process.

How can the G8 leaders at Camp David continue to play a leadership role on the three health-related Millennium Development Goals (MDGs)? There are several opportunities that could help maintain the high bar set by the leaders in Muskoka for achieving the MDGs, as well as other global health goals.

First, there is a need to strengthen the growing global movement for women's and children's health catalysed by the Muskoka Initiative and by the Global Strategy for Women's and Children's Health, which was launched by United Nations secretary-general Ban Ki-moon. Global health is about recognising the interlinked nature of health challenges across the globe. Those who fall outside current systems must be able to share



The direct global cost of child malnutrition has been put at between \$20 billion and \$40 billion each year

# South Africa: a health portrait for the G8

South Africa is a middle-income country with a population of around 50 million people. It is ranked 70th in the world in terms of a gross domestic product of \$8,600 per capita. Total health expenditure accounts for around 8.5 per cent of GDP, relatively high by middle-income country standards. However, per capita spending in the private sector is significantly higher than in the public health sector, which covers 84 per cent of the population. This has motivated the design and implementation of a national health insurance system over the next 14 years.

The country is faced with a quadruple burden of disease with high mortality and morbidity rates arising from:

- HIV and tuberculosis (TB)
- Maternal and child diseases
- Non-communicable diseases (NCDs)
- Violence and injury, including motor vehicle accidents

Like all the other southern African countries, South Africa has a generalised HIV epidemic, which has stabilised over the past four years at a national antenatal prevalence of around 30 percent. It is estimated that 5.6 million people in South Africa are infected with HIV. In addition, the country ranks third in the world in terms of the TB burden, with an incidence that has increased by 400 per cent over the past 15 years. The TB/HIV co-infection rate is estimated to be around 60 per cent. Largely as a result of the twin epidemics of HIV and TB, life expectancy fell to a average low of around 53 years in 2004 but as a result of increased focus on the prevention and treatment of HIV and TB, this has now improved to 57 years. It is likely that further improvements will result from the programme of action of government introduced in 2009.

Although there is much to be concerned about the financing of healthcare in South Africa, as well as the burden of disease and epidemiology of avoidable illness, there is also much that has been achieved and much that has still to be done.

Some of the key successes and challenges are outlined in the sections that follow.

## HIV

Through combined efforts of the private and public sectors a huge campaign to counsel and test 15 million South Africans for HIV was launched by President Jacob Zuma in April 2010, and as a result of this more than 20 million South Africans now know their status as regards infection.

The free provision of male and female condoms to the population has been one of the mainstays of the HIV prevention programme. Annually, more than 600 million male and six million female condoms are distributed. The decrease in HIV incidence in young people has been attributed to the increased availability and use of condoms.

South Africa has expanded its treatment campaign, which has now become one of the largest in the world, and by the middle of 2011 more than 1.6 million people in the country had begun antiretroviral treatment. This has partly been achieved by task shifting, allowing trained lay counsellors to counsel and test for HIV and by allowing certified nurses to initiate treatment. The HIV programme has also been institutionalised and by the end of the 2012 almost all public sector facilities will be treating

HIV along with other chronic diseases. A three-tiered information system is currently being implemented to monitor and manage patients on antiretrovirals.

Over the past year 320,000 medical male circumcisions were carried out. This biomedical intervention has been shown to be one of the most cost-effective ways of preventing the spread of HIV. The target for 2012 is to scale this up to 600,000 medical male circumcisions.

A far-sighted strategic plan for HIV, AIDS, sexually transmitted infections (STIs) and TB for the period 2012-16 was officially launched by President Jacob Zuma on World AIDS Day on 1 December, 2011. This plan integrates the treatment of HIV and AIDS and TB in the same strategic plan. This new programme has four strategic objectives:

- Addressing the social structural drivers of HIV, STIs and TB care, prevention and support
- Preventing new HIV, STIs and TB infections
- Sustaining health and wellness; and
- Ensuring protection of human rights and improving access to justice

## TB

In addition to integrating TB with HIV and ensuring that every person with TB is screened for HIV (and vice versa), new technology has been widely introduced to ensure the early diagnosis of TB (and drug-resistant TB) with the purchase of equipment known as Gene-Xpert. South Africa is the leading user of this technology and is serving as the laboratory for the world in the introduction of this cutting-edge technology.

## Introduction of rotavirus and pneumococcal vaccines into the immunisation schedule

In addition to the typical immunisation programme targeting vaccine-preventable illnesses in children, two new vaccines were introduced in 2008 to the expanded programme on immunisation (EPI). Rotavirus vaccine to prevent diarrhoeal disease and pneumococcal vaccine to prevent pneumonia were introduced, and within three years has reached coverage levels of 80 per cent of eligible children. Surveillance data suggests that deaths from diarrhoea and pneumonia in children have already decreased as a result of the introduction of these vaccines.

## Prevention of mother to child transmission of HIV (PMTCT)

South Africa has reduced the transmission of HIV from mother to child transmission from eight per cent in 2008 to 3.5 per cent in 2011. This is a reduction of over 50 per cent and this success has saved 30 000 babies from contracting HIV from their mothers, and by so doing has reduced the under-one and under-five mortality rates. In addition, all pregnant women are screened for HIV and increasingly those eligible are placed on antiretroviral treatment for their own health.

South Africa has committed itself to exclusive breast-feeding and as from 1 April 2012 formula feeding will not be provided in public sector settings unless there is a medical condition requiring this. All hospitals in the country will be required to be baby-and-mother friendly over the next three years.



### Non-communicable diseases

As in developed economies, non-communicable diseases (NCDs) are beginning to contribute significantly to the burden of disease in low- and middle-income countries. The South African Department of Health held a national consultation on NCDs and has developed a strategy and set of indicators to deal with this growing challenge. Two key interventions will be to reduce salt levels in processed foods and to curb alcohol consumption. These add to the impressive gains that the country has already made in decreasing tobacco use, especially among young people.

### Quality of care

It has been recognised by users of the public sector as well as policymakers that although there are pockets of excellence there is much that could be improved in the quality of care that patients receive and experience. Supportive supervision and improved clinical governance are two ways to improve the quality of care, and South Africa has embarked on a pilot programme to improve maternal and child health by introducing specialists in paediatrics and obstetrics to be stationed closer to the provider-patient interactions and to give support and mentorship to front-line providers.

### Infrastructure, equipment and human resources

Many public sector facilities (hospitals and clinics) do not have physical infrastructure, equipment and human resources in an adequate quantity and quality. A complete audit of all public health facilities is almost completed and a programme to systematically improve the infrastructure as well as availability of equipment and human resources has begun.

### Management and accountability

It is recognised that management and leadership are pivotal to success in the health sector. The managerial competency and capacity of hospital and district managers have been reviewed and in many cases found wanting. A programme to systematically review positions and skills has been introduced to ensure that all managers have the ability to successfully manage and be accountable for their areas of responsibility.

### National Health Insurance System

As indicated in the introduction, South Africa has a twin-tier health system with an expensive private sector and a public sector with inadequate capacity. To straddle this divide and to

ensure that money on health is more cost-effectively spent for all in need, a National Health Insurance System was introduced as a pilot in 10 health districts (approximately eight million people) on 1 April 2012. The first phase of the introduction of NHI will focus on strengthening the public health sector and finding creative ways of bringing in the private sector (general medical practitioners in the first instance) to provide care in the public health sector.

### Development aid

South Africa has been very fortunate in obtaining development assistance from a range of countries, institutions and philanthropies. Given the burden of disease from HIV and TB in particular, as well as the need to strengthen the health system, significant financial and technical assistance has been provided to the country – without which South Africa may not have made the gains that it has with respect to both decreasing the burden of disease and strengthening the health system. It is therefore vital that bilateral, multilateral and philanthropy support to the public health care system is sustained.

### Conclusion

South Africa has a health system that is faced with a large number of challenges, but has achieved a number of successes since achieving democracy in 1994. In responding to these challenges, the government is spending a significant portion of its resources on health care. In this it is helped by strategic investment by multilaterals (such as the United Nations' agencies) as well the bilaterals (notably USAID, the European Union and the UK's Department for International Development) who, in addition to financial resources, also provide technical assistance.

South Africa will continue to depend on all the help it can receive from its friends, but success in South Africa will help not only this country but the whole southern African region.



the benefits of available resources, including knowledge. The Every Woman, Every Child initiative, a campaign accompanying the Global Strategy, continues to galvanise new commitments and, importantly, to focus on concrete action in this area.

Second, health priorities and strategies must be integrated to maximise efficiency and impact. The global community tends to fragment the health and development agendas as if they are unconnected, competing priorities. On the contrary: they are deeply connected, especially from the perspective of the women and their families who are affected by them every day. For instance:

- One in every five maternal deaths is related to HIV;
- Malaria is one of the leading causes of child mortality;
- Nutrition and non-communicable diseases (NCDs) are closely interlinked with women's and children's health and with socioeconomic development.

This integration is required not only within the health sector, but also across other development sectors, through improving access to women's education, clean water and sanitation, through promoting food security and sustainable development and through ensuring participation in labour markets.

barrier to sustainable economic growth and development must be recognised. Malnutrition leads to losses in gross domestic product by poor countries of as much as three per cent each year. Adults affected by malnutrition earn almost 20 per cent less than their non-affected counterparts. It is estimated that the direct global cost of child malnutrition is between \$20 billion and \$40 billion each year.

#### **Health means wealth**

Everyone recognises that the health of populations contributes to the wealth of nations. But there must be a commitment to strategies that acknowledge that fact.

Finally, there is a need for greater accountability. When the MDGs were adopted in 2000, it marked the first time in UN history that every country in the world accepted accountability on a set of mutually agreed goals, targets and measures. In 2010, the Muskoka Initiative set clear goals for MNCH with an accountability framework. Moreover, accountability is one of the pillars of the Global Strategy for Women's and Children's Health. This will help produce lessons for other areas of global health and development.

In March, The Partnership for Maternal, Newborn and Child Health joined with three other leading global health partnerships

### ***The importance of addressing malnutrition as a determinant of health, a marker of social inequities and a barrier to sustainable economic development must be recognised***

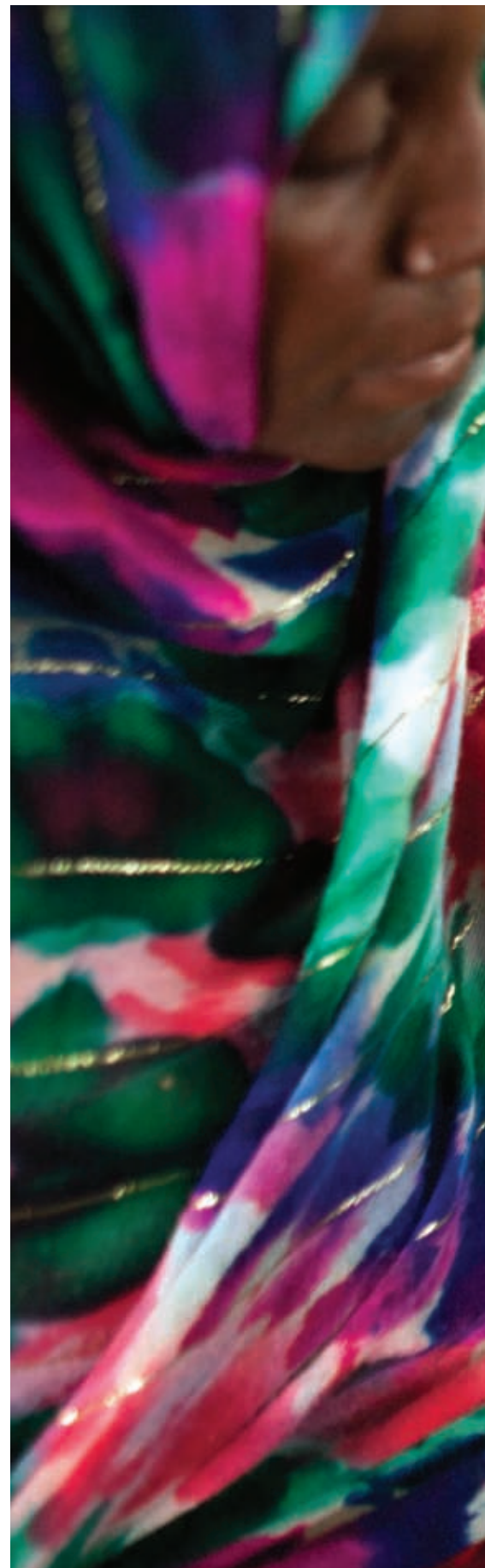
Third, the case must be made that women's and children's health is not merely an expense. It is an investment that contributes to future economic growth and sustainable development. Examples include:

- A background study to the Commission on Macroeconomics and Health found that as much as 50 per cent of East Asia's impressive growth from 1965 to 1990 could be attributed to reduced infant and child mortality, lower fertility rates and improved reproductive health;
- A study by the US Agency for International Development (USAID) found that maternal and newborn mortality and morbidity lead to \$15 billion in lost productivity every year;
- Reducing malnutrition can increase an individual's lifetime earnings by up to 10 per cent, and well-nourished children are less susceptible to disease and illness, thus lowering healthcare costs.

The importance of addressing malnutrition as a determinant of health, a marker of social inequities and an underlying

– the GAVI Alliance, the Global Fund to Fight AIDS, Tuberculosis and Malaria and the Global Polio Eradication Initiative – to send an open letter to G8 leaders asking for the inclusion of a specific statement of commitment for global health in the 2012 G8 Camp David Declaration and Accountability Report. The request was worded as follows:

'We acknowledge the need for continuing efforts to improve the health of women and children, especially in least-developed countries. Through the continued implementation of our Muskoka Initiative, we stand behind our commitment to Millennium Development Goals 4 and 5, and urge greater accountability and action through the full implementation of recommendations by the Commission on Information and Accountability for Women's and Children's Health in support of the Global Strategy for Women's and Children's Health, launched by the UN secretary-general in 2010. This includes addressing key needs, such as more support for family planning, as well as greater food security and better nutrition for pregnant women and children.' ■



Maternal and newborn mortality and morbidity lead to \$15 billion in lost productivity every year, according to the US Agency for International Development





# Securing a future for the next generation of HIV orphans

*As supplies of antiretroviral drugs dry up in some parts of the continent, it is more important than ever to help Africans run their own healthcare affairs*



**Dr Lisa Ramakrishnan,**  
chair and founder  
of Vantage Health

Swaziland represents ground zero in Africa's enduring HIV crisis. The disease is the reason life expectancy in the kingdom has fallen from 60 to 32 years in the past two decades. It is the reason hospital wards are filled with stick-thin patients drowning in the fluid filling their lungs. It is the reason malnourished children still trudge across barren farm tracts to bury their own parents. **It is the reason why I founded Vantage Health.**

In 2012, HIV continues to stalk Africa like a curse. It is as invisible as it is deadly. You cannot always see it as you travel across the continent, but the disease is everywhere. It lurks in the blood. It lies heavy on hearts. Its presence stalks schools and hospitals. It is interred in the ground.

Once a hopeless diagnosis for the afflicted, HIV is now treatable for as little as \$87 per person each year. Infected Africans on antiretroviral (ARV) drugs can now live almost as long as those who are HIV-negative. A positive story.

International NGOs estimate that only five million Africans receive such treatment. At least 10 million people on the continent, of whom the majority are women and children, remain in desperate need of it. In Swaziland, a nation which is gripped by an unprecedented economic crisis, the stocks of ARVs have simply run out in rural areas.

## Ending the dominance of the pharmaceutical industry

The bitter truth today is that HIV-positive women and children, who are in need of life-saving medication, are being turned away because of funding cuts, poor distribution and an over-reliance on foreign firms manufacturing the drugs that provide them with a lifeline. This cannot be allowed to continue.

I have made it my life's mission to engage Africa in a programme of self-determination that will end the dominance of major pharmaceutical firms and foreign donors in what has become a cut-throat globalised HIV business.

My mission statement is simple and compelling. By 2013, my firm, Vantage Health, will begin construction of factories in Sub-Saharan and East Africa, with technology from China and India, to establish local production of ARV medicines. By 2015, Vantage Health will be helping Africans make ARVs for Africa. We must all believe that Africa has the capacity to beat HIV.

In 2012, smallpox has been eradicated, the end of polio is nigh and the number of children dying from measles has dropped by more than 80 per cent. Brazil, India and China have been essential in driving this transformation, pushing down the price of drugs and introducing new business models that have reshaped how medicines are distributed and consumed. But these nations' changing geopolitical interests, and the increased adoption of intellectual property rules, will unleash price rises and tighter export controls for hugely profitable drugs such as ARVs. The changing commercial interests of pharmaceutical producers in India and China now present serious dangers for Africa's future.

Large pharmaceutical companies are increasingly aiming their sights on richer markets, where several blockbuster drugs are coming off patent. As the disease burden within India and China starts to resemble that of rich countries, with more diabetes and cancer for example, Africa's needs will simply slip off the radar.

Combine this with the decision by the board of the Global Fund to Fight AIDS to cancel the 11th round of funding and we have the perfect storm ahead for Africa's HIV-affected. How Africa's governments, not the G8 nations, respond to this changing weather system will ultimately determine whether the world's poorest continent overcomes its health challenges.

## Averting the coming storm

Evidence is abundant that HIV is at the very heart of the most acute issues facing the Sub-Saharan and East African region, including maternal health, tuberculosis, broken homes and unemployment. In short, it will not be possible to build sustainable economies and credible health systems within African countries as queues for ARVs grow.

In parts of South Africa, a supposed beacon of economic hope, supplies of ARVs have recently collapsed. In every African nation frequent drug stock-outs as a result of funding shortages and supply-chain problems mean that patients have experienced interruptions in their treatment regimens, predisposing them to new forms of resistance and, ultimately, death.

The worst consequence of supply chains drying up is that Africans will no longer have faith in ARV programmes to treat HIV; they will simply stop attending clinics for treatment. We may have to return to rationing medication or singling out high-priority patients for treatment. The mortality rate will increase.

At Vantage Health we see ourselves as a warning bell anticipating the coming storm, but our production strategy for the future is based on precedent, not hope of survival.

The fact that nations such as India have stepped in by producing low-cost generic drugs illustrates how intellectual property policy can be used to increase access to affordable HIV medicines in developing countries. The Indian pharmaceutical industry is highly export-orientated and, by capitalising on infrastructure progress, has become a major supplier of generic medicines and low-cost ARVs to developing countries.



With emerging economies, improved roads and communications, as well as augmented water and sanitation programmes, Africa can follow suit. Nations such as Tanzania and South Africa have the stability, ambition and infrastructure to produce high-quality pharmaceuticals. Our commitment is based on a belief that African nations can be competitive in terms of energy supply, skills, infrastructure and regulatory efficiency.

Turnaround is not impossible. Prior to 1982, eight transnational pharmaceutical companies controlled up to 70 per cent of Bangladesh's local industry. Bangladeshi firms now hold that share. In Indonesia, between 1991 and 2010, the same dramatic reversal took place.

### **The need for further investment**

Foreign investment in the sector is one stimulus that is already in place. India's Cipla is a partner in Cipla Medpro, South Africa's fourth largest pharmaceutical company, and has established a joint venture in Uganda with a Kampala-based manufacturer producing ARVs. Cadila recently announced a \$65m joint venture in Rwanda but the reality is, it is just isn't enough. More African enterprises need to come forward to meet the crushing demand.

At the heart of Vantage Health's mission is our inherent belief that bigger economies don't necessarily have better healthcare outcomes. Ultimately, governments, not companies, emerge as the most important actors in ensuring wide access to medicines for their populations, and ideally those of their neighbours. Their policies, from intellectual property regulations to public investment in higher education and roads, will ultimately prove more important than the whims of big pharmaceutical companies in Delhi, Geneva or Beijing.

The painful truth is that decades of dependence on other countries to supply medicines has diminished African self-determination and led to a helplessness that has allowed disease – and the acceptance of disease – to thrive.

Vantage Health plans to work with existing initiatives, and trained manpower and reward will be at the heart of our progress. However, we also recognise the urgent need for joined-up thinking to ensure secure distribution from laboratory to patient. ARVs are currently failing to reach the most marginalised members of society, including rural women, sex workers and households headed by children in remote areas. Providing sanitation, refrigeration facilities, good roads, detailed country maps and skilled staff to produce ARVs to WHO standards are all key parts of cracking that life-and-death puzzle.

### **Local clinics to improve maternal and child health**

But our investment in Africa will go beyond this. On a micro level we also plan to build local clinics for mothers and children to ensure safe pregnancy, delivery and the steady availability of vaccinations for newborn babies. Such clinics would educate both employees and clients on the rapid spread of HIV and how irregular medication can lead to further infection.

The end game of the entire process is to have Vantage Health be just the beginning of a new industry emerging to create a competitive, thriving and domestic industry on home soil, benefiting and run by the people of Africa.”

Over a decade ago, before treatment was available in Africa, some NGOs gave AIDS patients small notebooks and told them to write down their feelings so that, after their deaths, their children would know them. They became known as ‘memory books’. In Swaziland, I recently found a book from 2002 written by a mother to her daughter. It simply said: “Happiness lies somewhere else, my child. Somewhere far from here.”

I have met the victims of HIV on the deep rural plains of sub-Saharan Africa. I have seen families travelling with their HIV-positive children into Botswana and South Africa, desperately seeking ARVs. But in South Africa, fewer than half of the people who urgently need ARVs can get them. One mother, who was clutching a sick child, told me: “We are running to nowhere. We are holding out the begging bowl for ARVs to people who are beggars themselves.”

I believe treatment and prevention strategies must work hand in hand. I am a medic, a scientist and, above all, a pragmatist. I set up Vantage Health knowing that supplies of ARVs in Africa are running dangerously low. On my travels across Africa, I have met NGO logisticians and administrators and fellow doctors who are deeply frustrated by the current situation. All complain of severe shortages of drugs. In Malawi, some healthcare facilities are now only able to distribute ARVs once or twice a week.

Africa's reliance on outsiders is not sustainable. We believe the answer is for communities to take ownership of their own healthcare. To be given the opportunity to participate in the management and production of life-saving medicines, is the start. We believe economic independence in healthcare is key in the fight against HIV. Vantage Health's mission is to hand the fate of future generations back to their communities.



[www.vantagehealthgroup.com](http://www.vantagehealthgroup.com)

# More than money: the business contribution to global health

## Increasingly, the private sector is plugging gaps in community healthcare, either through sustainable partnerships or by providing critical resources

By Jeffrey L Sturchio, senior partner, Rabin Martin

**T**wo years ago, G8 leaders pledged an additional \$5 billion by 2015 to improve maternal, newborn and child health and to help achieve Millennium Development Goals (MDGs) 4 and 5. But in the often frustrating calculus of G8 discourse, the enthusiasm of the 2010 Muskoka summit has been tempered by the reality of the fiscal constraints that governments face as their economies struggle in the wake of the global recession. In this uncertain climate, business has emerged as a true partner with government and civil society in addressing some of the great global health challenges. This paradigm shift presents an opportunity for the G8 to facilitate deeper engagement with both private and public stakeholders to continue this trajectory of progress.

### Every Woman Every Child

The Every Woman Every Child initiative is an important example of how effectively multisectoral partnerships can – and should – work. Launched by United Nations secretary-general Ban Ki-moon in September 2010 as part of the Global Strategy for Women's and Children's Health, the initiative has mobilised an estimated \$40 billion in commitments over five years. The goal is to save the lives of 16 million women and children by 2015, by filling the gap between the investment required for women's and children's health and the resources that are provided.

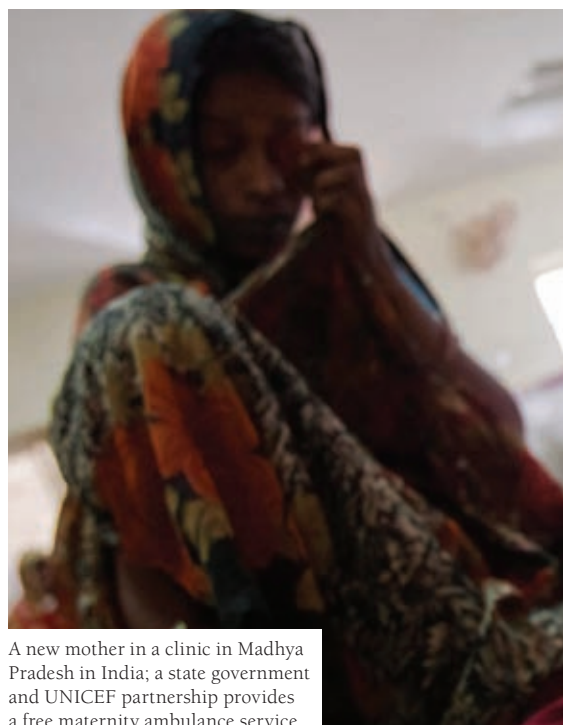
One of the most significant aspects of Every Woman Every Child is the wide range of partners who have made commitments to help. This is a striking example of the contributions that businesses large and small are already making to global health, bringing complementary resources and capabilities to reinforce the efforts of donors, national governments and other partners.

The 32 commitments made by 27 business organisations to Every Woman, Every Child include a diverse array of initiatives:

- General Electric will protect the health of mothers and babies in rural areas by addressing unmet health needs in remote or underserved areas by developing safe, affordable tools adapted to these settings, such as incubators for premature infants;
- Johnson & Johnson is investing \$200 million through to 2015 to help as many as 120 million women and children each year with a range of interventions – including the donation of mebendazole to treat intestinal worms, reducing birth asphyxia in infants and upgrading health facilities for more women at risk of fistulas;
- Medtronic, through the Medtronic Foundation, is supporting key planning and advocacy activities on a global scale to catalyse efforts to improve the prevention, care and treatment of non-communicable diseases, especially with regard to the most vulnerable populations, including women and children;
- Merck & Co, Inc (known as MSD outside the United States and Canada) has established Merck for Mothers, a 10-year, \$500 million initiative to help reduce maternal mortality by 75 per cent by improving the quality and supply of diagnostic, prevention and treatment interventions for post-partum haemorrhage and pre-eclampsia;
- Nestlé is expanding its Healthy Kids Global Program (HKP) to 51 new countries, addressing the challenges of poor nutrition and obesity by teaching children the value of good nutrition and physical activity through targeted programmes, developed in collaboration with national health and education authorities and child nutrition experts;

- Novo Nordisk will help improve the health of women and children with a focus on screening, treatment and care for gestational diabetes and by developing a partnership-based programme to address critical research gaps, develop innovation solutions, campaign for universal screening for gestational diabetes and mobilise key stakeholders to improve health outcomes for women and the next generation.

As demonstrated by these and many other commitments that are already making a difference, the private sector is providing critical resources to address global health priorities and to improve health outcomes. Equally encouraging is the trend towards utilising innovative public-private partnerships to develop sustainable healthcare solutions to deal with the challenge of maternal mortality. These partnerships focus on creating sustainable business models in resource-limited settings, enabling local business partners to develop tailored products and services for women and children while moving beyond dependence on donors.



A new mother in a clinic in Madhya Pradesh in India; a state government and UNICEF partnership provides a free maternity ambulance service

One such partnership is the Mobile Alliance for Maternal Action (MAMA). MAMA, which uses mobile phones to improve maternal health in developing countries, is piloting a programme that delivers audio health messages twice a week to 2,000 women to remind mothers to attend antenatal care checkups and how to stay healthy during pregnancy. MAMA seeks to achieve 'scale, sustainability and impact' by creating a replicable model of reaching low-income mothers and household decision-makers.

### **The value of innovative partnerships**

MAMA is experimenting with different payment methods, which include subsidising rates, working with service providers to offer discounted rates and soliciting advertising. Founding partners USAID and Johnson & Johnson have made a three-year, \$10 million investment to create and strengthen programmes in Bangladesh, India and South Africa. Over the next three years, MAMA will help coordinate and increase the impact of existing mobile health programmes and provide resources and technical assistance to promising new business models.

Innovative partnerships such as these demonstrate the potential that comes from matching the capabilities and resources of the private sector – a bias towards innovation, a focus on efficiency and management, and a determination to reach scale – with the scope and democratic inclusiveness of the public sector. This potential can be seen not only at the level of multinational corporations working with multilateral organisations and governments, but also at the national level, where a vibrant ecology of energetic entrepreneurs, existing small and

medium-sized enterprises and supporting institutions is helping to deliver improved health outcomes in creative ways to a wide range of customer segments.

A promising example of a sustainable business model to address maternal health at the local level is the Drishtee Maternal Health Care Project in India. With support from MSD, Drishtee launched its Health Franchise programme in 2010. The franchise hires locally trained women to become a collective set of entrepreneurs and owners of Drishtee Health Kiosks, which provide maternal care and non-invasive diagnostics. The women are trained to work in a cluster of villages on defined routes in regions where government

### ***The G8 can provide incentives for businesses to invest in global health solutions that can reach millions***

facilities are either absent or non-functional. The goal of the Drishtee Health Franchise programme is to be sustainable by having each kiosk charge for its services, including a registration fee. By using trained women health entrepreneurs and by providing rural women with a safer option for childbirth, the project plans to reduce maternal mortality through community education and access to maternal health services.

As governments focus on financial recovery, partnering with the business community to explore sustainable models to address health is more important than ever.

The real question is not whether business has a role to play, but how to encourage additional collaboration and cooperation among businesses, the communities in which they operate and the public sector to address the growing health challenges faced by low- and middle-income countries.

In addition to maternal and child health, in recent years there has been an unprecedented mobilisation of resources and partnerships to tackle HIV/AIDS, tuberculosis, malaria and neglected tropical diseases (such as onchocerciasis, lymphatic filariasis, guinea worm, trachoma and schistosomiasis).

Non-communicable diseases – such as heart disease and stroke, diabetes, asthma and other respiratory conditions, cancer, dementia and mental illness, visual impairment – are bringing the next wave of global health challenges. There will continue to be a compelling case for businesses across sectors to contribute to solutions.

### **The influence of G8 leadership**

How can the G8 leaders best help to foster greater business contributions to global health? Rather than focus on resource commitments, the G8 can help most effectively by exercising leadership – in policies, practices and partnerships.

By making the strengthening of health systems a priority and by creating enabling policy environments – in such areas as trade promotion, procurement and supply-chain management, product regulation and registration, and the mundane aspects of contract negotiations – the G8 can provide incentives for businesses to invest in global health solutions that can reach millions. Encouraging their partner governments to do likewise, and to share pragmatic solutions, will create useful leverage and expand the coverage of successful programmes.

Adopting practices that reinforce private-sector engagement in public health solutions – for instance, by requiring officials to consider working with private-sector providers in scaling up new health programmes (in effect, guaranteeing a market by becoming a core early customer) – will also help, as will implementing careful evaluations of investments to understand and build upon what works. And, finally, by actively fostering development partnerships that embody these enabling policies and practices, the G8 can model behaviour that will catalyse additional business investments in global health.

The G8 leaders can also apply their influence to bring together the right resources, the right expertise and the right solutions in innovative ways to create successful and sustainable responses to the challenges in maternal and child health identified at the Muskoka Summit in 2010.

More importantly, by implementing the right policies, practices and partnerships, the G8 can embrace the opportunity to create new whole-of-society approaches to address the global health challenges of the future. ■





The American Medical Association celebrates the work of the G8 nations and physicians around the globe.

## Thank you.

The AMA is proud to play a major role in helping to improve global health. We are invested in making a difference in ways that include drafting policy for the World Medical Association, providing and recognizing the humanitarian assistance physicians deliver and, through *JAMA*, the *Journal of the American Medical Association*, and the *Archives Journals*, informing the world on matters of health, economics and global well-being.

Working together we will continue to improve the health of people around the world—a mission that matters to millions each and every day.



Read *JAMA's* May 16 Global Health Theme Issue.



# Bolstering brain health makes perfect sense

**As technology means fewer people are needed to carry out physical work and more are required for intellectual tasks, the role of the brain in the global economy is becoming increasingly important**

*By* Vladimir Hachinski, president, World Federation of Neurology; chair, Working Group, World Brain Alliance

**W**e are our brains. Hippocrates recognised this 2,500 years ago in observing that “from the brain, and from the brain only, arise our pleasures, joys, laughter and jests, as well as our sorrows, pains, griefs and tears. Through it... we think, see, hear and distinguish the ugly from the beautiful, the bad from the good”.

## **The key to health and well-being**

Without a healthy brain, little else matters. It is crucial to the achievement of health, to solving global problems and to creating a better world. The leading non-communicable diseases (NCDs) of heart disease and stroke, cancer, chronic respiratory diseases and diabetes depend for their prevention, treatment and rehabilitation on competent brains, unclouded by stress, drugs or

an unhealthy diet, physical inactivity and addictions to tobacco and alcohol, as acknowledged by the recent declaration by the United Nations General Assembly in September 2011.

However, there is one factor that all these risk factors have in common in that they affect the reward system in the brain. Moreover, individuals in the anguish of anxiety or the despair of depression cannot necessarily follow healthy lifestyles. Consequently it is imperative that the G8, the World Health Organization, the UN and national governments avail themselves of the expertise of those who study the brain and its disorders.

## **Brain health begins with the mother**

It is well established that a healthy pregnancy is a major determinant of a child's health and that the first five years of life are crucial in intellectual, emotional and social

In the digital age, repetitive physical labour and most activities that do not require intellectual input can be automated and robotised. Consequently, it becomes more important to have a higher level of intelligence and social skills in order to function and to be productive in what is an increasingly knowledge-based society.

The internet and social media have provided multiple opportunities for improving the human condition. They also require a higher degree of intellectual capacity than has been previously required, even until relatively recent times.

## **The World Brain Alliance**

In recognition of the above facts, all the major brain organisations of the world came together to found the World Brain Alliance in Geneva on 30 March 2011. This umbrella group has the aim of promoting brain health and of treating, rehabilitating and preventing brain and mental disorders. It also seeks to move neurological and psychiatric issues up the agenda of global health policymakers.

The alliance is made up of 10 different organisations: Alzheimer's Disease International, the European Brain Research Council, the International Brain Research Organization, the International Child Neurology Association, the International League Against Epilepsy, the World Federation of NeuroRehabilitation, the World Federation of Neurology, the World Federation of Neurosurgical Societies, the World Psychiatric Association and the World Stroke Organization. Together, these organisations represent most countries of the world.

Their memberships encompass not only health professionals, but also neuroscientists, patient groups and volunteers, all willing to help implement the policies that will lead to better brains and better health and well-being.

The G8 can have a major role in promoting health, well-being and wealth by making brain health part of all policies, investing in neuroscience and taking advantage of the knowledge currently available and applicable through the World Brain Alliance.

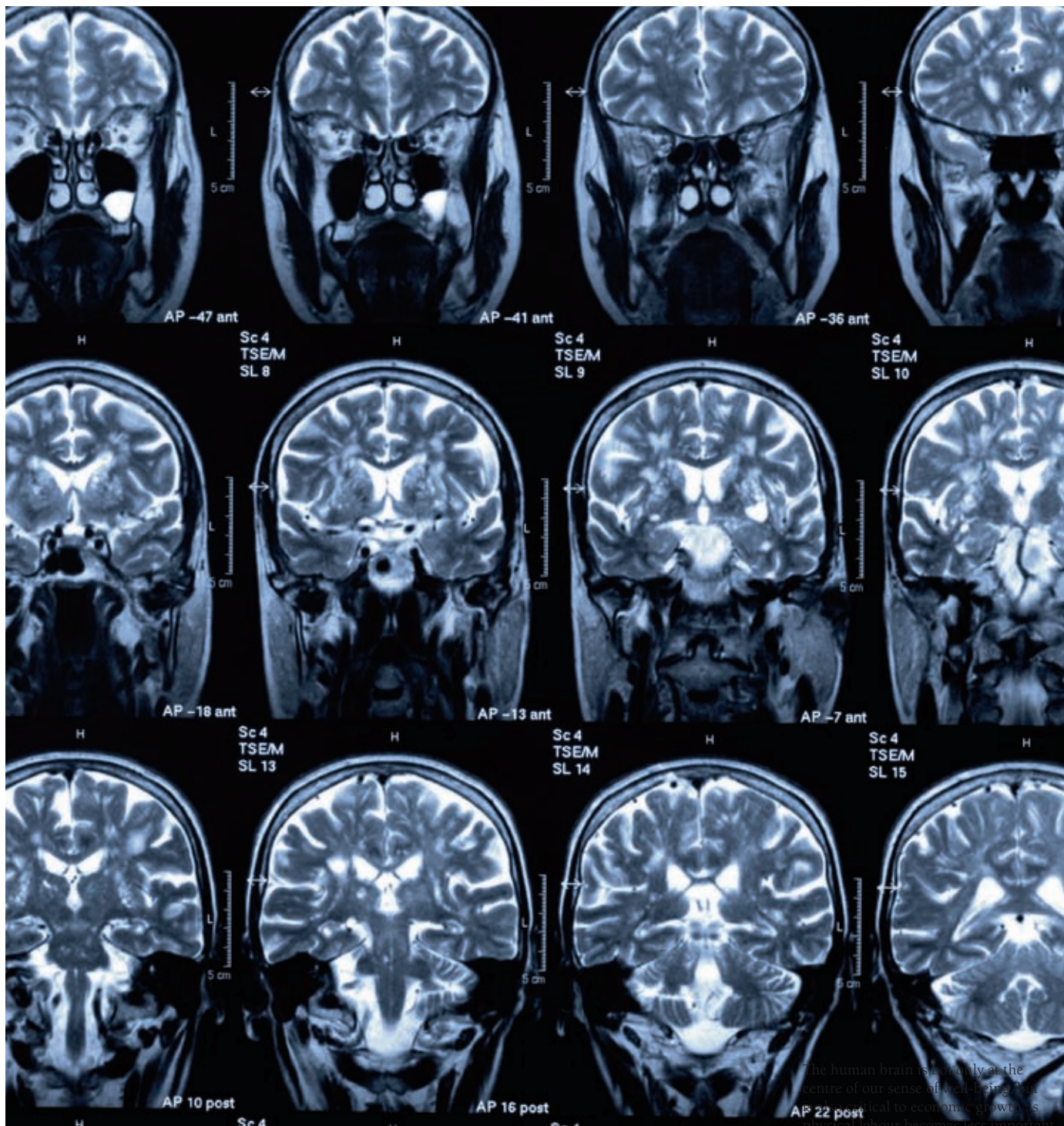
Since all successful human activities involve a competent brain and since mentally and physically healthy individuals are key to productivity, the single best investment is to assure brain health – which, in turn, ensures health, well-being and wealth. ■

***The G8 can have a major role in promoting health, well-being and wealth by making brain health part of all policies, investing in neuroscience and taking advantage of all the knowledge that is currently available and applicable through the World Brain Alliance***

depression. When the brain fails, the costs are staggering. Dementia consumes about one per cent of global gross domestic product (GDP), and will rise with the world's ageing population. Disability is more costly than death. Stroke is a leading cause of disability, brain failure and epilepsy.

A few common risk factors account for a large proportion of disease, namely

development as well as in the acquisition of lifelong habits. Women play a leading role in this. Their importance is recognised in *Non-Communicable Diseases: a Priority for Women's Health and Development*, published by the NCD Alliance in 2011. NCD control must be closely linked to the Millennium Development Goals, especially the maternal and child health initiatives.



The human brain is not only the centre of our sense of well-being, but also the engine of economic growth. As a result, our brains are as important







## Our responsibility as a world citizen is not to follow the crowd, but lead by example.

**At Astellas, we are committed to improving the health of people around the world by providing innovative and reliable pharmaceutical products. Guided by this philosophy, we use our core strengths as a research-oriented pharmaceutical company to seek new ways of bringing better medical care to the global community:**

- Global leadership in developing transformative new treatments in the fields of transplantation and urology
- A global sales and marketing network
- A robust pipeline with many “first-in-class” or “best-in-class” compounds that hold the promise of improving patient care in numerous therapeutic areas, including oncology and infectious disease
- Strong drug discovery technologies combining small molecule synthesis, fermentation, antibodies, and proteins

With these core strengths, Astellas is committed to targeting health issues that affect the international community, including child mortality, maternal health, and communicable and noncommunicable diseases. Astellas is working to change tomorrow by rising to the challenge of creating drugs that are truly needed, giving courage and hope to patients afflicted by illness worldwide.

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