Promoting the global governance of international health and development

It is time for the G20 to demonstrate real leadership on the AIDS response by supporting a global tax on financial transactions, tracking commitments and developing a coherent stance on intellectual property

By Michel Sidibé, executive director, UNAIDS

In the first decade of the 21st century, the G8 was a consistent and effective champion for the leading global initiatives in health and development. In 2000, the G8 called for the creation of the Global Fund to Fight AIDS, Tuberculosis and Malaria. In 2002, the G8 welcomed the New Partnership for Africa's Development (NEPAD), and in 2005 G8 leaders made bold commitments at Gleneagles to increase foreign aid, provide debt relief and reach universal access to HIV treatment.

In the current decade, it has been the G20 that has taken on the expanding role of ensuring worldwide financial stability. This shift brings with it a unique responsibility: the G20 must promote the global governance of international health and development.

Supportive statements

Since 2010, the G20 has engaged closely with the agenda for international development. At the 2010 Seoul Summit, the G20 adopted the Seoul Development Consensus, which recognised that the global financial crisis "disproportionately affected the most vulnerable in the poorest countries and slowed progress toward achievement of the Millennium Development Goals (MDGs)". It cited the clear need to strengthen and leverage development efforts to address such challenges. In 2011 at Cannes, G20 leaders emphasised that "aid commitments made by developed countries should be met" and that "emerging G20 countries will engage or continue to extend their level of support to other developing countries". These bold statements underscore the G20's readiness to play a leading role in health and development.

To date, however, the engagement of the G20 in this sphere – including the implementation of the Multi-Year Action Plan of its Development Working Group, has fallen far short of its potential, and of the hopes of millions of people in low- and middle-income countries who look to the G20 for leadership and solidarity.

The AIDS epidemic illuminates the true influence and potential impact of the G20 on global health and development. Thirty years ago, the G8 countries were among the first to be affected by the AIDS epidemic, but today they represent only eight per cent of the people living globally with HIV. By contrast, the G20 countries currently represent 40 per cent of the 34 million people living with HIV. The full engagement and support of the G20 is essential if the world is to reach the UNAIDS vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths.

The G8 countries were among the first to be affected by AIDS, but today they represent only eight per cent of the people living globally with HIV; the G20 countries represent 40 per cent

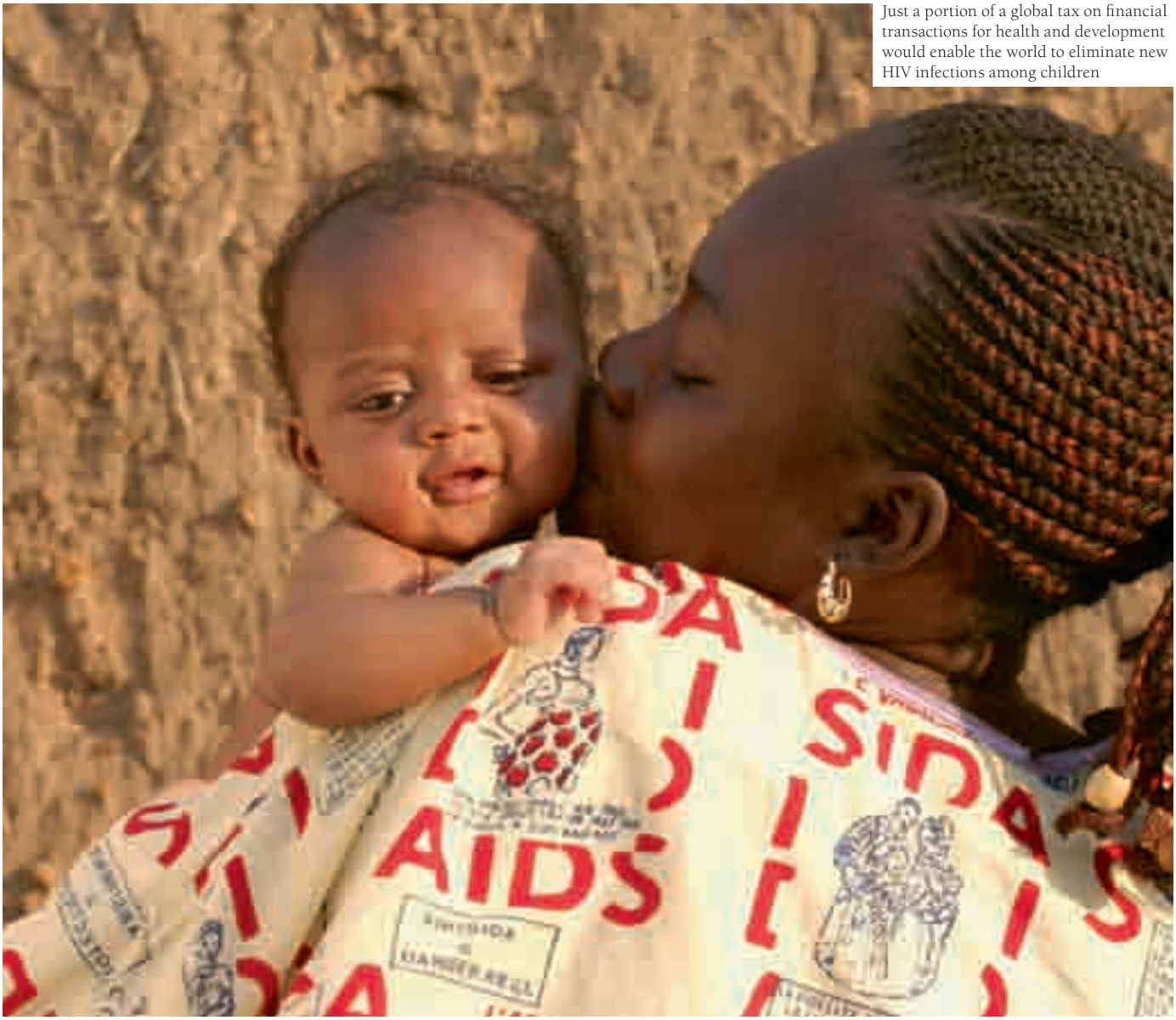
In 2010, after years of significant increases in global AIDS funding, several G8 countries reduced their contributions. However, this drop in international AIDS funding has been offset by substantial increases in domestic AIDS funding from key G20 countries, including the BRICS (Brazil, Russia, India, China and South Africa). There have also been significant increases in development assistance for AIDS from Australia, Saudi Arabia, Korea and Turkey. The members of the G20 now contribute over 85 per cent of all international funding for the global AIDS response in low- and middle-income countries. By increasing domestic and international funding for AIDS, the emerging economies in the G20 have demonstrated their commitment to end dependence on international aid and their readiness to share responsibility for the AIDS response.

As the leaders meet at their summit in Los Cabos, the G20 should mobilise their collective influence and commit to three action-oriented outcomes that will have an immediate and profound impact to demonstrate the G20's role as a leading force for global governance of health and development.

The legacy of Los Cabos

First, the G20 members should break from past development paradigms that expect their governments to commit additional financial resources needed to fulfil the Seoul Development Consensus. Instead, the legacy of the Los Cabos Summit should be the G20's decision to support a global tax on financial transactions that would provide dedicated resources for health and development. It has been estimated that even a minor tax of 10 basis points on equities and two basis points on bonds could generate about $48 billion from the G20 members, without adding to the fiscal burden on the governments or the economies of the G20. But for the global AIDS response, just a portion of these resources would enable the world to eliminate new HIV infections among children, put 15 million people on lifesaving treatment, halve the number of tuberculosis deaths in people living with HIV and much more by 2015. The additional resources would enable the world to bridge the gaps to reach the other MDGs.

Second, the G20 should leverage the vision and support of international civil society as a key partner. The AIDS response has always demonstrated that progress is elusive if the hopes and expectations of those most affected are not represented at the table. If the Los Cabos Summit supports the call of civil society for the G20 to put into place concrete mechanisms to follow up commitments from



Just a portion of a global tax on financial transactions for health and development would enable the world to eliminate new HIV infections among children

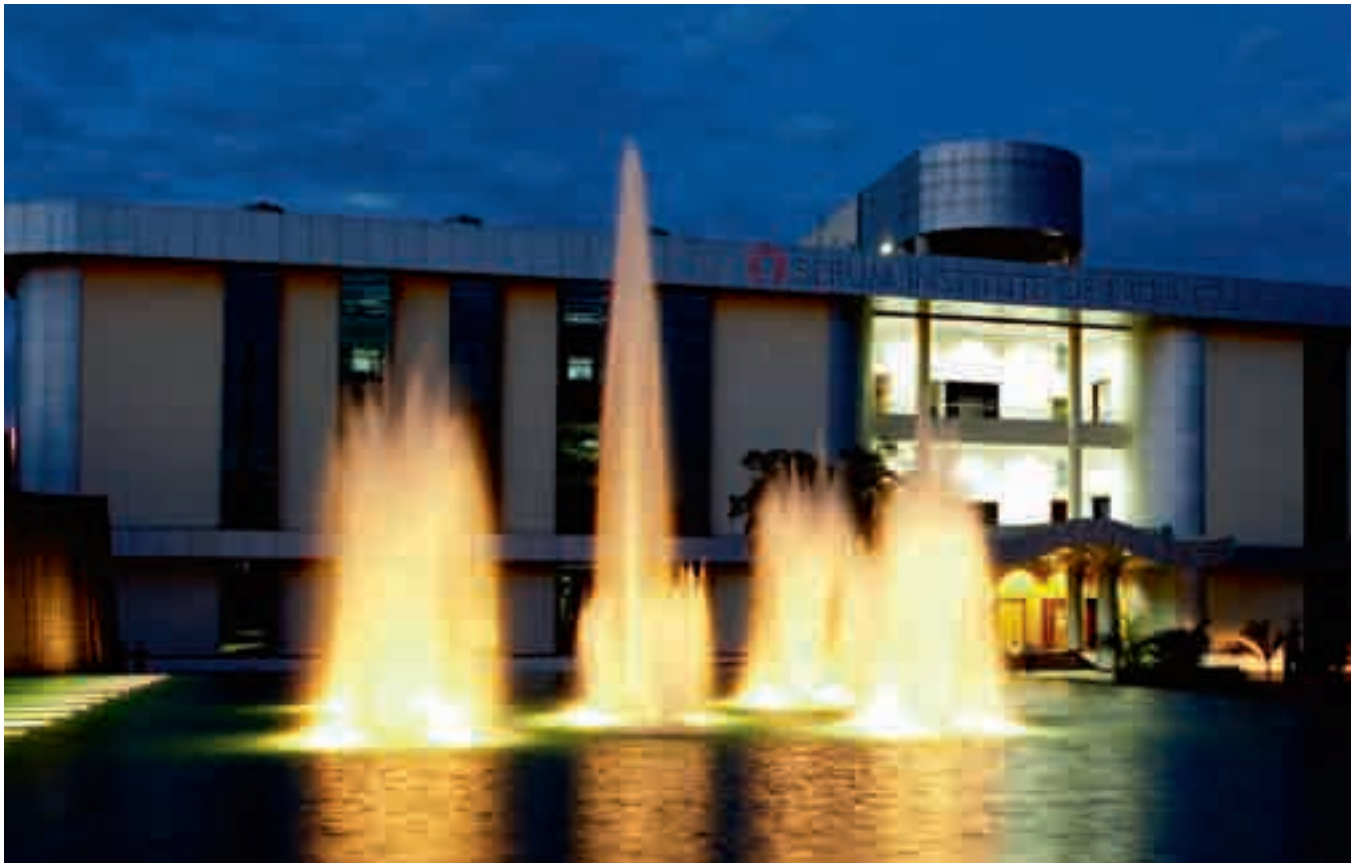
previous summits and also provide greater representation to civil society itself, the G20 will quickly transform itself from the object of civil society protests to its greatest partner and advocate.

Third, the G20 should connect the dots between the commitments of its individual members to the global AIDS response and the need for a coherent G20 policy on trade-related aspects of intellectual property rights (TRIPS). The G20 is in a unique position to improve global access to affordable medicines, including essential generic drugs for HIV treatment. If the G20 adopts a strong common position to reject data exclusivity clauses and other 'TRIPS-plus' measures in bilateral and regional trade agreements, millions of people in low- and middle-income countries will continue to access treatment for HIV and other life-threatening illnesses in the future.

With these three commitments, the Los Cabos Summit would mark a turning point in the development of the G20 – showing its maturity and readiness to go beyond the individual contributions of its members to set an equitable and sustainable agenda for global health and development. ■

The Serum Institute of India:

rowing against the tide of new, unaffordable vaccines



The Serum Institute of India (SII) is India's number one biotech company and the world's fifth-largest vaccine manufacturer (by volume) with an installed annual production capacity of more than one billion doses of different vaccines. SII is also one of the largest suppliers of vaccines to UN agencies, (UNICEF & PAHO) thereby supplying to more than 140 countries, and takes pride in the fact that one out of every two children immunised worldwide gets at least one vaccine produced by the Serum Institute.

Founded in 1966 by a true visionary, Dr Cyrus Poonawalla, with the aim of manufacturing life-saving immuno-biologicals, which were in short supply in the country and imported at high prices. Getting the permission to produce vaccines was not an easy exercise, but production started and picked up when the company won contracts to supply state governments and hospitals. Thereafter, several life-saving biologicals were manufactured at prices affordable to the common man, with the result that the country was made self-sufficient for Tetanus anti-toxin and anti-snake venom serum, followed by the DTP (Diphtheria, Tetanus and Pertussis) group of vaccines and then later on the MMR (Measles, Mumps and Rubella) group of vaccines. Today, the company is recognised as a reliable source of high quality vaccines and biologicals, and its products have been regularly supplied to international health agencies such as WHO, UNICEF and PAHO. This impact has been large enough to make International agencies including WHO, PATH, NIH, NVI/RIVM and CBER/USFDA to work with the Serum Institute to develop affordable vaccines against Meningococcal A, H1NI Influenza, Rotavirus and other diseases. SII's products are WHO-prequalified, and registered in many countries including Switzerland, mainly because of its strong quality management systems.

Since its inception, the philosophy of the company was to develop new vaccines at affordable prices for the developing world without compromising on quality. This has resulted in developing newer vaccines like Meningococcal A Conjugate, Hib Conjugate and Pentavalent vaccines, which has saved the lives of new born children in the developing world globally.

This approach coherently emerges in two of the most recent and successful cases of needs-driven health innovation produced by the Serum Institute, recounted here.

Bill Gates lists Serum Institute Chairman Dr Cyrus Poonawalla as one of his seven most influential vaccine heroes

Nasovac™, a new preventive vaccine against H1N1 infection. In the wake of the 2009 panic due to fears about the H1N1 pandemic, the Serum Institute announced in July 2010 the launch of its indigenously developed vaccine, Nasovac™ to prevent swine flu. This is a live, monovalent vaccine containing Live Attenuated Influenza Virus (LAIV) propagated in embryonated hen eggs for administration by intranasal spray, a painless prevention method. Priced at Indian Rs.160 ($3.42) a dose, the vaccine costs half the price of foreign and domestic swine flu vaccines sold in India, in an effort to encourage more

people to take it. With the technology now in place, India now has the capability to make its very own seasonal influenza vaccines, by switching the pandemic H1N1 strain with the seasonal flu virus.

MenAfriVac™, an innovative vaccine collaboration against meningococcal meningitis. The Serum Institute's new meningitis vaccine for Sub-Saharan Africa was officially launched in Burkina Faso on 6th December 2010, marking a historic event for the part of the world known as the Meningitis Belt, annually stricken by the re-emergence of the epidemic infection. The Meningococcal A Conjugate Vaccine (MenAfriVac™) is the product of a pioneering vaccine development collaboration, namely a technology transfer alliance between the Serum Institute of India and the US National Institutes of Health (NIH). Under the Meningitis Vaccine Project (MVP) first mooted in 2001, (a PATH project for which a grant of $70 million was received from the Bill & Melinda Gates Foundation in collaboration with WHO), the NIH licensed conjugate vaccine technology to the Serum Institute, which agreed to produce the vaccine cheaply in exchange for technical know-how. Indeed, the Serum Institute has kept the promise made in 2002 of supplying this vaccine at an introductory price of 40 cents a dose. The product has been prequalified by WHO, and in just two years the Serum Institute has supplied to Unicef more than 55 million doses. This has transformed the life of people residing in Sub-Saharan Africa by protecting them from devastating Meningitis A epidemics.

A report from the humanitarian medical organisation, Médecins Sans Frontières, and Oxfam, released in May 2010, has highlighted that four factors have been crucial to the project's success pointing towards MenAfriVac™:

1. focus on low cost;
2. identification of a single supplier for a single product;
3. technology transfer from a publicly funded institute, and
4. partnership with an emerging country supplier.

The Serum Institute is playing a significant role in achieving Millennium Development Goals (MDGs).

a) From 1999 until 2005 the SII measles vaccine contributed towards the prevention of nearly 7.5 million deaths.
b) Reduction of deaths from measles in Africa and the eastern Mediterranean region by a remarkable 90 per cent and in the world by 74 per cent in 2007.
c) Preventing more than 2.5 million annual deaths from diphtheria, pertussis and measles.
d) Meeting United Nations goals towards reducing measles deaths by 90 per cent by 2010, three years before schedule.
e) Reduction in the 8.1 million serious illnesses caused by Hib.

As well as other excellence awards such as the Sabin Award for global corporate philanthropy, bestowed in 2005, SII Chairman Dr Cyrus Poonawalla was conferred with the "Award for Excellence in Inter-American Public Health" by the Pan-American Health Organization (PAHO) and the Pan-American Health and Education Foundation (PAHEF) in 2010. This was presented for the Serum Institute's extraordinary contribution in the elimination of rubella and congenital rubella syndrome throughout the Americas. Bill Gates lists Dr Poonawalla as one of his seven most influential vaccine heroes. "His Serum Institute", says Gates, "makes more vaccines than anybody."

The Serum Institute's core scientists in R&D are working hard to contribute further to global health in the near future by developing the following vaccines :

- Rotavirus vaccine
- Meningococcal ACYW vaccine (Polysaccharide/Conjugate)
- Pneumococcal vaccine (Polysaccharide/Conjugate)
- Human Papilloma Virus vaccine
- Acellular Pertussis, containing combination vaccines
- Inactivated Polio Vaccine, and so on

Serum Institute of India Ltd.
Registered Office & Laboratories
212/2, Hadapsar, Pune 411 028, India
Tel: +91 20 2699 3900/2699 3904; fax: +91 20 2699 3921
email: contact@seruminstitute.com

www.seruminstitute.com

Fiscal stability, economic growth and non-communicable diseases

Non-communicable diseases such as diabetes are both a cause and an effect of poverty, with huge costs at the micro and macroeconomic levels. But coordinated policy interventions can work

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

Senior policymakers must come to terms with the fact that fiscal consolidation in the medium and long term will not be achieved without attention to non-communicable diseases (NCDs), such as cancer, cardiovascular diseases, diabetes and chronic respiratory disease, and their associated risk factors. This major preventable drag on economies worldwide must be addressed if countries are to maintain prospects of long-term economic growth without threatening fiscal stability objectives. The G20 is distinctively well positioned to do so.

According to recent estimates published by the International Monetary Fund, since 1970 total health spending has increased as a share of gross domestic product (GDP) in both advanced and emerging economies. It went from six per cent to 12 per cent in the former, and from less than three per cent to five per cent in the latter. These increases have put tremendous fiscal pressure on governments and financial pressure on households and businesses. Furthermore, over the next 20 years public health spending is projected to rise in advanced and emerging economies on average by three per cent and one per cent of GDP respectively. At least one-third of the increase would be associated with the effects of population ageing, since it goes – along with increases in life expectancy – hand in hand with the rising prevalence of NCDs, as well as the widespread risk factors of tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol.

A recent study by the World Economic Forum and the Harvard School of Public Health uses a different approach to estimate the economic impact of NCDs. Over the next 20 years, NCDs will cost more than $30 trillion, representing 48 per cent of global GDP in 2010, and pushing millions of people below the poverty line. Mental health conditions will account for the loss of an additional $16.1 trillion over this time span, with dramatic impacts on productivity and the quality of life.

Early mortality and disability caused by NCDs affect the productivity of the working-age population: about one-quarter of all NCD deaths occur in people under the age of 60

NCDs are diseases of long duration and generally slow progression, thus imposing a high burden on society in both human and economic terms. The four main NCDs – cardiovascular diseases, diabetes, cancer and chronic respiratory disease – are the greatest cause of premature death and morbidity worldwide, accounting for 63 per cent of total deaths. Nearly 80 per cent of those deaths occur in low- and middle-income countries. According to 2007 estimates, in the Americas 76 per cent of deaths were related to NCDs, and 60 per cent of these to the principal NCDs. Estimates by the Pan American Health Organization (PAHO) show that some 250 million people are living with an NCD in the Americas and, as such, are at risk of potentially becoming disabled or suffering an early death.

The economic impact has various dimensions. There are direct and indirect costs involved, at both the household and the macroeconomic levels. Experts have shown that chronic diseases and related risk factors have an impact on consumption and saving decisions, labour-market performance and human capital accumulation. Indeed, early mortality and disability caused by NCDs have negative effects on the productivity of the working-age population: about one-quarter of all NCD deaths occur in people under the age of 60. NCDs are both a cause and effect of poverty, worsening equity problems.

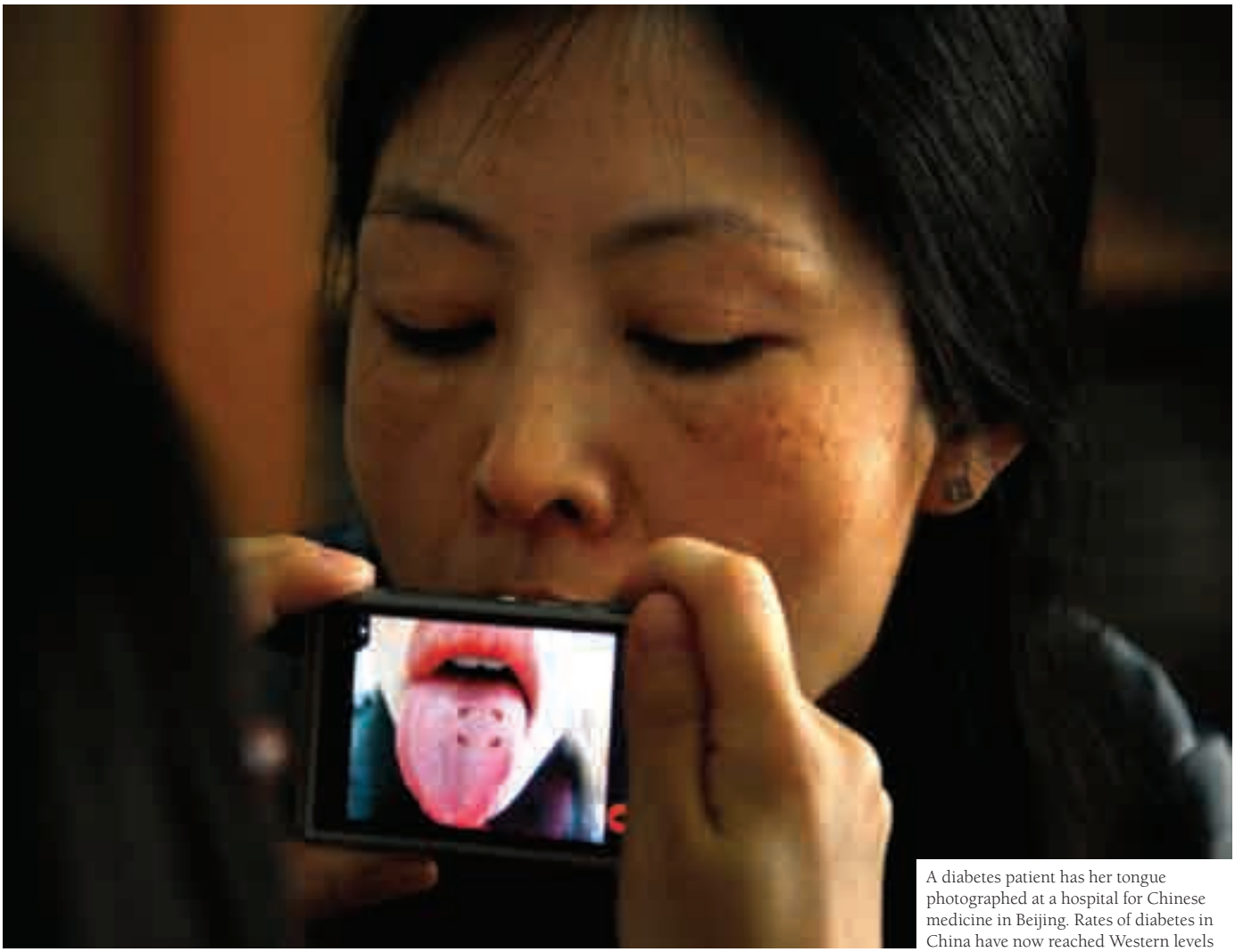
Public policy interventions

Most of these mounting costs are associated with interventions at the curative level. The good news is that NCDs and their expensive complications are largely preventable. Therefore, interventions at the macro policy level to strengthen the preventive level of care would help to contain the increasing human and economic burdens of NCDs.

Interventions to reduce the economic impact of NCDs can address two dimensions: individual and collective. The first is linked to how much NCDs are a result of consumer choice where the main risk factors identified play a role; and the second is linked to the recognition that NCDs are a result of a complex interrelated environment at the society level (including urbanisation, the globalisation of food supply, education and income levels, unemployment) – evidence of the need for a multisectoral approach.

Therefore, action at the public policy level should contemplate individual and social behavioural changes, taking a multisectoral and a 'whole of society' approach to foster a combination of environmental changes, regulation, taxation, education, and the adaptation and strengthening of health services with an emphasis on a primary healthcare strategy.

Without determined action, the costs and adverse impacts of NCDs will continue to rise. However, these can be avoided to a large extent by investing more in prevention. The investments and most cost-effective measures to be taken are outlined in *From Burden to 'Best Buys': Reducing the Economic Impact of Non-communicable Diseases in Low- and Middle-Income Countries*, published by the World Health Organization (WHO) and the



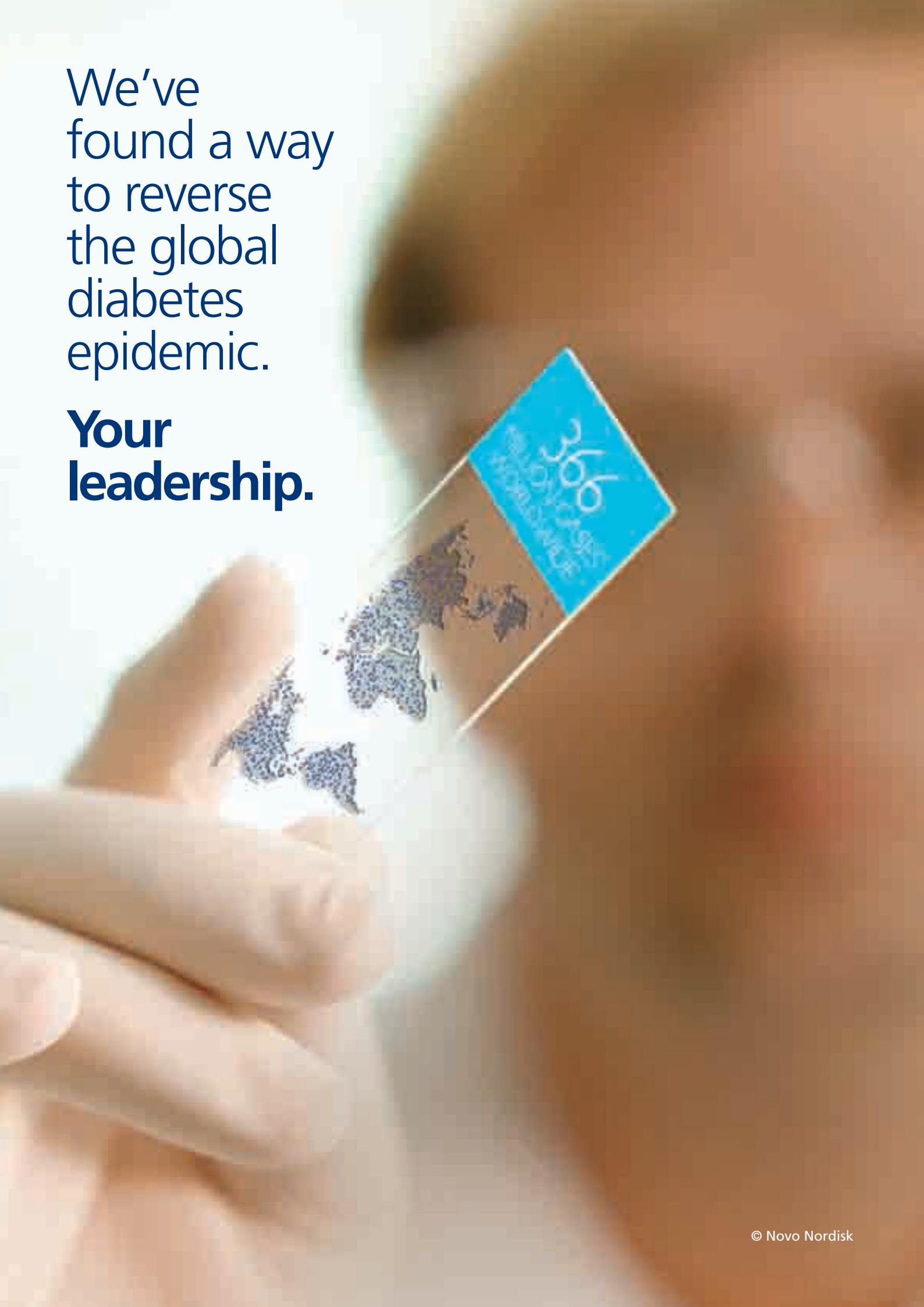
A diabetes patient has her tongue photographed at a hospital for Chinese medicine in Beijing. Rates of diabetes in China have now reached Western levels

World Economic Forum. Measures such as tobacco control, alcohol control and dietary salt reduction have benefit/cost ratios of between 20:1 and 30:1. Other interventions such as screening and early detection of hypertension, diabetes and some forms of cancer, and follow-up with preventive care are also highly cost effective.

A global partnership

As host of the Los Cabos Summit, Mexico was the site of a recent partnership meeting on the economic dimensions of NCDs, which analysed, among other things, the severe economic and fiscal impacts of this silent epidemic in the country. This partnership aims to strengthen the capacity for priority setting and policymaking informed by economic analysis. Its members are PAHO/WHO, the Economic Commission for Latin America and the Caribbean, the Organisation for Economic Co-operation and Development, the Public Health Agency of Canada, McGill University and Washington University, as well as Mexico, Argentina, Brazil, Canada, Colombia, Costa Rica, Chile, and Trinidad and Tobago. Areas of work pursued by the partnership include further research and modelling of interventions, training, dissemination of information and developing guidelines for public policy.

G20 leaders are in a unique position to provide global leadership in the follow-up to the United Nations High-Level Meeting on NCDs held in September 2011, and to promote the adoption of integrated public policies of cost-effective solutions for a problem that affects all countries, all people and all businesses. Decisive actions by policymakers to address these challenges are crucial to reach both the sustainable growth and the human development principles that the G20 is about. ■


We've
found a way
to reverse
the global
diabetes
epidemic.
Your
leadership.
© Novo Nordisk

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.

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%

International Diabetes Federation. IDF Diabetes Atlas, 5th edn. Brussels, Belgium: International Diabetes Federation, 2011. http://www.idf.org/diabetesatlas

National Diabetes Fact Sheet. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.

Dall, T.M., Zhang, Y, Chen, Y. et al. The Economic Burden of Diabetes. Health Affairs. 29, (2); 2010.

"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.

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.

novo nordisk®

Addressing global health challenges through improved nutrition

With diseases related to malnutrition on the rise, the challenge is not only to ensure food security, but also to address the nutritional quality of the food being consumed and its impact on health

By Julio Frenk, chair, Partnership for Maternal, Newborn and Child Health; dean, Harvard School of Public Health; and former minister of health, Mexico

My father, Dr Silvestre Frenk, who worked at the Children's Hospital in Mexico, was one of the world's leading authorities on child malnutrition. I have followed his leadership in my own career, prioritising this issue when I was Mexico's minister of health from 2000-06. More recently, I have become involved in the fight against non-communicable diseases, including rising rates of obesity and their impact on chronic diseases.

Thus I have been exposed to the issues of malnutrition – including both under-nutrition and over-nutrition – from early childhood through my current professional life. I am now proud, but not surprised, that Mexico has taken a leadership role in naming food security as one of the five priorities of its presidency of the G20.

Malnutrition and food security

The Mexican government, in its paper entitled *Food Security: a G20 Priority*, defines food security "not only as an increase in production, but also the availability of, and access to, food by the population". I agree with this and would urge the G20 to go even further and integrate nutrition security into its deliberations and recommendations.

Poor nutrition is a key issue faced by low-, middle- and high-income countries. It is a marker of social inequity as it affects the most vulnerable. Malnutrition, in all forms, is a major contributor to disease and early deaths, especially for women and children whose low socioeconomic, legal and political status increases their exposure and vulnerability to disease.

Under-nutrition is an underlying cause of death for 2.6 million children annually (one-third of child deaths) and leaves millions more with lifelong physical and mental impairments. Under-nutrition inhibits healthy development and reduces productivity, and therefore economic development. Malnourished children are at a greater risk of having difficulty learning, playing and engaging in normal childhood activities. Adults who were malnourished as children earn 20 per cent less, on average, than those who were not.

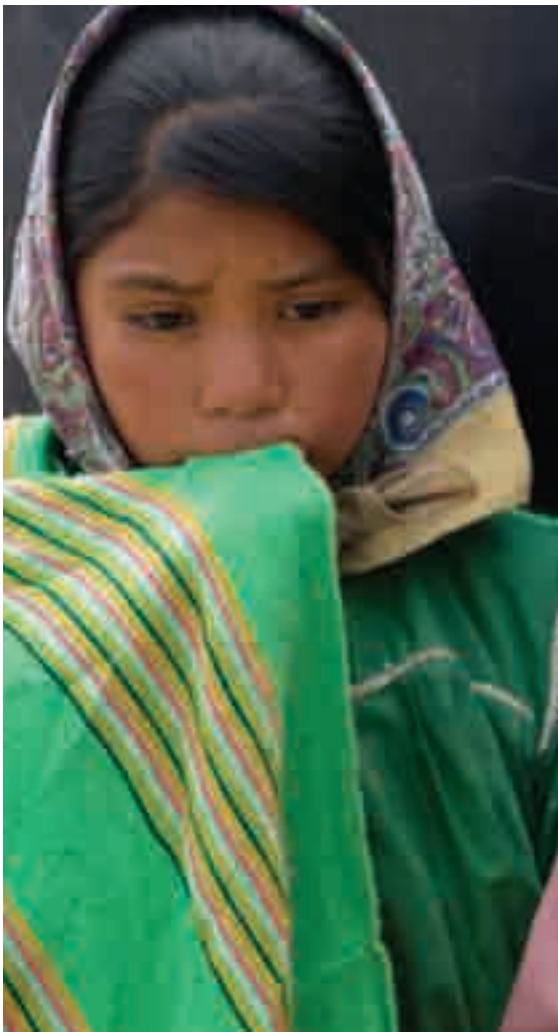
Women are also adversely affected by malnutrition. For example, malnutrition often leads to anaemia and other deficiencies that can cause death and limit their productivity and contribution to economic development.

The double burden of malnutrition

Today, the world increasingly faces a double burden of malnutrition, where under-nutrition and over-nutrition contribute to worsening health outcomes. At least 2.8 million people die each year as a result of being overweight or obese. By increasing the risk of chronic diseases such as diabetes and heart disease, obesity also reduces productivity and leads to rising costs in healthcare. High-fat, high-sugar, high-salt, micronutrient-poor food tends to be cheaper than healthy food and thus has a larger detrimental health impact on the poorest. Obesity is an increasing problem not only in high-income countries, but also in G20 countries such as Brazil, China, India and Mexico, as well as in other low- and middle-income countries.

Malnutrition in the form of under-nutrition alone leads to losses in gross domestic product by poor countries of as much as three per cent per year.

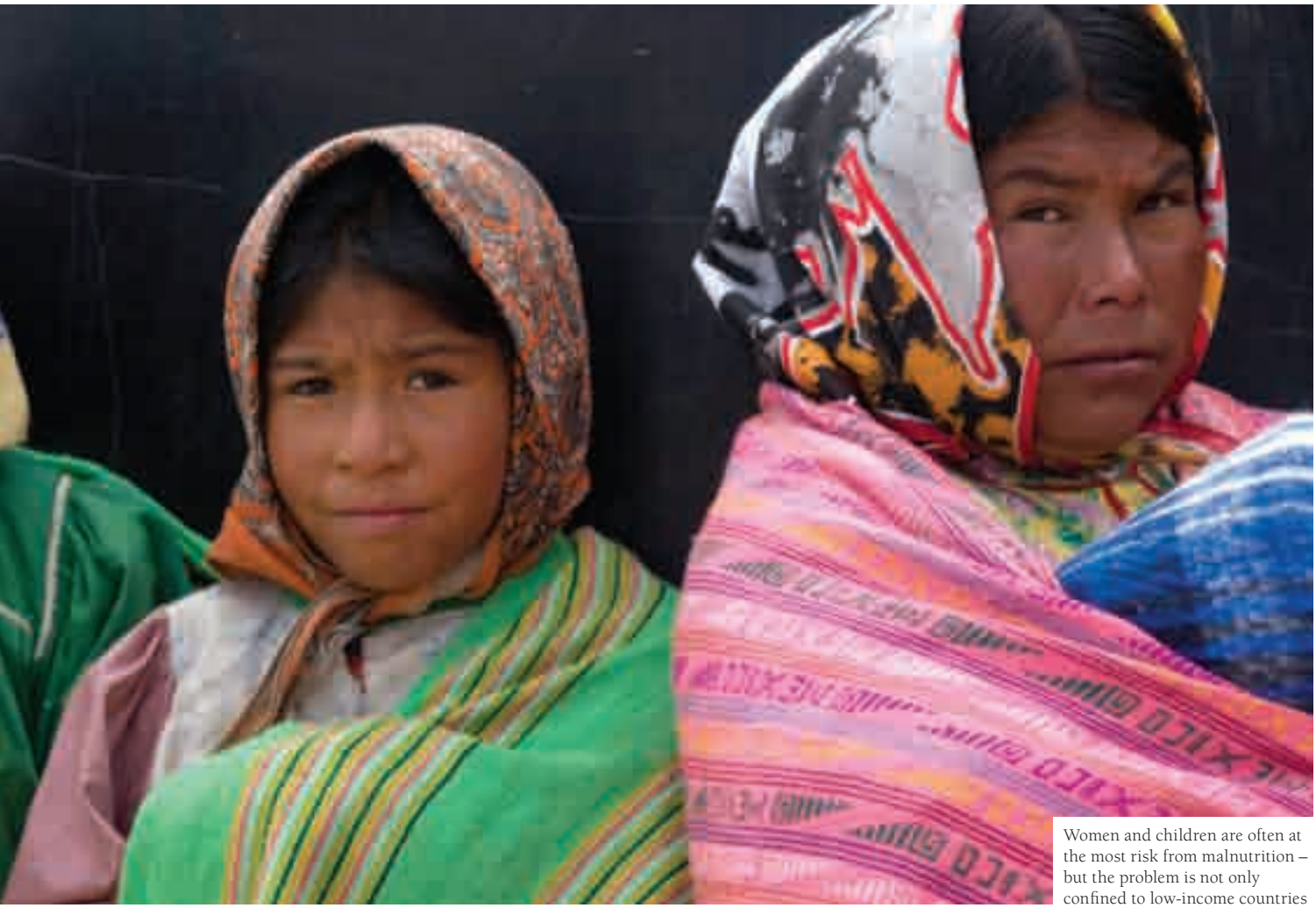
Challenges to food and nutrition security are growing. Climate change is affecting food production patterns and may place



regions and countries most vulnerable to food insecurity at even greater risk. Food prices have been notably higher since 2000 than in the previous two decades, They continue to be volatile. Volatility and higher food prices lead poor households to consume food of lower nutritional value, entrenching them in a cycle of poor nutrition.

Evidence-based strategies

The G20, led this year by Mexico, must invest in nutrition, especially for the most vulnerable – notably women and children – in order to improve health outcomes, livelihoods and overall development.



Women and children are often at the most risk from malnutrition – but the problem is not only confined to low-income countries

The G20 should commit to multi-sectoral approaches aimed at promoting country nutrition strategies as recommended by the Scaling Up Nutrition movement. This should include efforts to expand on successful interventions to address under- and over-nutrition. Such initiatives should include the following:

- Investment to improve nutrition for mothers and children during the critical 1,000 days from gestation to age two – when better nutrition can have a lifelong impact on a child's future and help to achieve long-term progress in health and development;
- Direct nutritional interventions to prevent under-nutrition, such as exclusive breastfeeding for six months, micronutrient supplements, food fortification for children and complementary feeding;
- Population-wide weight-control campaigns that raise awareness about over-nutrition among medical staff, policymakers and the public, and promotion of health literacy; capacity-building and empowerment to raise awareness of risk factors of obesity; incentives to stimulate substitution of high-calorie, low-nutrition foods; and
- Improving agricultural productivity with a focus on smallholder farmers to promote food security, in a way that addresses climate change-related issues (such as breeding crops that are more nutritious and heat resistant) and education interventions that have a powerful impact over time in preventing under-nutrition.

Existing food systems have failed to address malnutrition, and continuing food-price volatility has limited the access of vulnerable populations to sustainable, nutritious diets. If this problem is not addressed, malnutrition will continue to undermine sustainable economic development. ■