Countries still grappling with infectious diseases such as tuberculosis, HIV/AIDS and malaria now face a double burden of disease. Major social and economic change has brought an escalating diabetes epidemic to low- and middle-income countries (LMCs). Diabetes kills and disables, impoverishes families, imposes a huge economic burden on governments and business, and overwhelms health systems.

But this global shift in the burden of diabetes has not been reflected in the policy priorities of donor countries and organisations. Diabetes and the related NCDs (cancer, cardiovascular disease and chronic respiratory disease) remain under-funded development issues.

BUSTING THE MYTHS: DIABETES IN THE DEVELOPING WORLD

Previously considered diseases only of the rich and elderly, diabetes has now taken hold in developing countries; 3 out of 4 people with diabetes now live in LMCs. This epidemiological trend is projected to continue over the next twenty years, with the greatest increases in numbers of people with diabetes occurring in the Africa, the Middle East and South-East Asia Region.

The changing health landscape is driven by ageing populations, rapid urbanisation and globalisation. But as with other priority health issues, underlying socio-economic conditions influence people’s vulnerability to diabetes and health outcomes. For example, poverty increases exposure to ‘obesogenic’ environments, maternal malnutrition during pregnancy increases future risk of diabetes in the infant, and marginalised populations face barriers to care. Diabetes therefore impacts disproportionately on the poor and vulnerable, including indigenous people and slum dwellers.

THE MISSING LINK: DIABETES AND GLOBAL DEVELOPMENT

The human and economic costs of diabetes are undermining development gains made to date in many LMCs. Diabetes impacts negatively on many aspects of global development, including economic sustainability and human development. These are illustrated in the diagram and outlined in detail below.
**ECONOMIC SUSTAINABILITY**

Diabetes can cause and entrench poverty in LMCs. Where there is a lack of social and health insurance, out of pocket payments for treatment and care can trap poor households in cycles of catastrophic expenditure, impoverishment and illness. In India the treatment costs for an individual with diabetes are 15-25% of their household earnings.² Risk of financial ruin is further compounded by the shift in age distribution of diabetes in LMCs, where it increasingly strikes household breadwinners. In India and China for example, diabetes hits a decade earlier than in Europe and USA. Debilitating diabetes-related complications and premature death of the main income earner means less money for basic necessities such as food and shelter and the key drivers of development such as education.

The economic effects of diabetes at the household level add up to a substantial macroeconomic toll. Lost productivity and rising healthcare costs are crippling government budgets worldwide and slowing economic growth. For example, WHO estimate that China and India will lose USD 558 billion and USD 237 billion respectively in foregone national income as a result of largely preventable deaths from diabetes, heart disease and stroke.³ As the epidemic grows fastest in resource-poor settings, significant investment in diabetes prevention and care will be needed to support fragile health systems, stretched national healthcare budgets and prevent economic progress being undermined.

**HUMAN DEVELOPMENT**

Diabetes undermines other key development objectives such as promoting gender equality and reducing maternal mortality. Undiagnosed or uncontrolled diabetes in pregnancy increases the risk of morbidity and mortality for both mother and infant. Progress on infectious diseases such as TB, malaria and HIV/AIDS are impeded by the co-existing diabetes epidemic. People with diabetes are 2.5 times more likely to develop TB;⁴ in India up to 15% of TB is attributed to diabetes.⁵ Diabetes and malaria frequently occur together in countries where malaria is endemic and diabetes can contribute to worse malaria outcomes in adults. Some anti-retroviral treatment for HIV/AIDS increases the risk of diabetes. Furthermore, environmental sustainability is threatened by the same changing patterns of production and consumption that underlie the diabetes epidemic, such as rapid urbanisation, poorly-designed cities and transport systems, and changes in food production.

**INVESTING IN DIABETES HAS DEVELOPMENTAL BENEFITS**

These fundamental links mean that preventing and controlling diabetes brings significant and measurable benefits for global development and the objectives prioritised in the Millennium Development Goals (MDGs). Investing in affordable and cost-effective solutions to prevent and treat diabetes makes sense in all resource settings. Most type 2 diabetes can be prevented or significantly delayed by reducing the major modifiable risk factors, and effective, low-cost treatments and care exist for diabetes that cannot be prevented. With early diagnosis and effective management, people with diabetes can live long, healthy and productive lives and vulnerable health systems can save on expensive complications such as kidney failure, blindness and amputations.

The table details the developmental benefits of investing in diabetes.

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“Cancer, diabetes, and heart diseases are no longer the diseases of the wealthy. Today, they hamper the people and the economies of the poorest populations... this represents a public health emergency in slow motion”

Ban Ki-moon, United Nations Secretary General
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<th>MDG</th>
<th>Key Message</th>
<th>Developmental Benefits of Investing in Diabetes</th>
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| **MDG 1: Eradicate Extreme Poverty and Hunger**                     | Diabetes is a disease of poverty, impacting on vulnerable populations. It drains household resources and undermines economic development.                                                                                                                                                                                                            | • Reduction in adult diabetes-related mortality promotes poverty reduction  
• Early diagnosis and treatment reduces diabetes complications such as blindness and amputations  
• Subsidised diabetes care reduces impoverishment  
• Improved nutrition reduces the risk of diabetes                                                                                                                                                                                                                         |
| **MDG 3: Promote Gender Equality and Empower Women**               | Gender inequalities increase vulnerability to the risk of diabetes. Diabetes places additional care burdens on girls and women.                                                                                                                                                                                                                   | • Prevention of diabetes promotes women’s health  
• Prevention of diabetes reduces the care burden for women and girls                                                                                                                                                                                                     |
| **MDG 4: Reduce Child Mortality**                                   | Children die of type 1 diabetes in LMCs due to lack of insulin.                                                                                                                                                                                                                                                                                  | • Improved access to insulin and associated diabetes care in LMCs reduces child mortality and morbidity                                                                                                                                                                   |
| **MDG 5: Improve Maternal Health**                                 | Diabetes and gestational diabetes (GDM) are maternal and child health issues, increasing maternal morbidity and mortality. Poor maternal health increases the risk of diabetes in future generations.                                                                                                                                                        | • Detecting and managing diabetes reduces maternal mortality and morbidity  
• Improved maternal and infant nutrition reduces the prevalence of obesity and diabetes                                                                                                                                                                                  |
| **MDG 6: Combat HIV/AIDS, Tuberculosis and Malaria**               | People in LMCs often have a mix of infectious and non-communicable diseases such as diabetes (NCDs). Diabetes exacerbates major infectious diseases, particularly TB.                                                                                                                                                                                   | • Reduction of diabetes reduces the number of cases of tuberculosis.  
• Reductions in HIV/AIDS and Anti-Retroviral Treatment (ART) reduces diabetes prevalence.                                                                                                                                                                               |
| **MDG 7: Environmental Sustainability**                            | Diabetes shares common risks and solutions with climate change. Both result from the way we live, and are largely preventable.                                                                                                                                                                                                                | • Policies for the prevention of diabetes, including public transport, walking and cycling, have a positive effect on climate change  
• Improvement in the lives of slum dwellers reduces diabetes prevalence                                                                                                                                                                                                  |
MIND THE GAP: DONOR FUNDING AND DIABETES/NCDS

The diabetes burden is increasing fast and LMCs urgently require technical and financial assistance to respond. Yet the funding policies of multilateral and bilateral agencies have not changed to match the changing global burden of disease. An estimated $21.8 billion was spent in 2007 on Development Assistance for Health (DAH). But only 2.3% was dedicated to NCDs despite NCDs causing 60% of the burden of disease in LMCs. In 2005 donor agencies signed up to the Paris Declaration on Aid Effectiveness agreeing that recipient governments should determine policy and programmes according to national needs. DAH figures, however, show that donor agencies are ignoring low-income country governments identifying diabetes and NCDs as national priorities in health.

It does not make human or economic sense to save the lives of people with AIDS, only to have them die from diabetes and related NCDs. Investment in diabetes and the related NCDs is critical for economic stability, human security and progress across all MDGs.

WHAT NEEDS TO BE DONE

• Diabetes and the related NCDs must be integrated into health systems, particularly at primary health care level
• Diabetes and NCDs must be integrated into future international development goals after the end date of the MDGs in 2015
• Diabetes and NCDs must be integrated into MDG-based national planning and Poverty Reduction Strategy Papers (PRSPs) in low-income countries
• NGO representatives from diabetes organisations and people with diabetes must be included in consultations on national health priorities and donor programmes in low-income countries
• Donor agencies must align development aid in health to the priorities of recipient countries, in line with commitments in the Paris Declaration on Aid Effectiveness
• The UN must ensure coordinated action across the whole UN system, including WHO, the United Nations Development Programmes (UNDP), UNFPA, UN Women, the UN’s Children’s Fund (UNICEF), the UN’s Food and Agriculture Organization (FAO), and the World Trade Organization (WTO)
• Diabetes prevention and care must be integrated into existing maternal health and child programmes, as well as action supporting the UN Global Strategy for Women and Children’s Health
• Additional resources and innovative partnerships are needed to ensure universal access to affordable, quality-assured essential diabetes medicines and technologies

References

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