

Commonwealth Health Ministers' Update 2010

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At the Point of Care for 40 years







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Foreword

Commonwealth Health Ministers' Update 2010

extend a warm welcome to all delegates at the 2010 Commonwealth Health Minister's Meeting, held, as always, on the eve of the World Health Assembly in Geneva. Securing the health of the Commonwealth is a priority, especially in the current global economic context. Thus the theme of this year's meeting, 'The Commonwealth and the Health Millennium Development Goals by 2015', is entirely suitable. Later this year, Governments will meet at the UN General Assembly to discuss how to accelerate progress to fulfil this unique global development agenda.

While all countries have made efforts to improve the health of their citizens, many of the MDG targets are unlikely to be met without more focused and sustained intervention. Access to healthcare remains a critical issue for Commonwealth countries: in too many cases, populations marginalised by virtue of income level, gender, disability status, location, age and sexual behaviour are not able to obtain the levels of care that they require. Achieving the MDGs will require countries to address long standing inequities that are barriers to accessing healthcare. They have prevented all Commonwealth citizens from enjoying a most basic right – the right to health.

Progress in meeting the health MDGs is not the exclusive purview of the health sector. Achievements in other MDGs are also important. For example, improving girls' access to secondary education will have a significant impact on health, as will efforts to reduce poverty and achieve gender equality. As we approach 2015, discussions on the health targets must acknowledge the linkages between the indicators for all the MDGs.

The impact of the current economic crisis on the health sector is not fully known; however, what is clear is that fiscal space has become more restricted and countries will therefore need to prioritise what they do. This requires greater attention to efficiency and effectiveness in services offered, and to ensuring that those most in need are provided with appropriate services. As such, countries need to plan for change to meet these new challenges. It is particularly important to seek to ensure that reduced resource envelopes and the increased pressure on out-of-pocket expenses serve as catalysts for implementing measures that contribute to maintaining and strengthening services and service delivery.

The technical solutions required to achieve the MDGs are known for the most part; they have been discussed in global health fora for over a decade, and some date back to the discussions at Alma Ata in 1977. What is needed now is bold, sustained and informed political commitment to support evidence-based interventions and policies. I hope that this year's Commonwealth Health Ministers' Meeting is able to reinforce that commitment to action. The health of the Commonwealth depends on this.

HE Mr Kamalesh Sharma, Commonwealth Secretary-General





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Introduction

The Commonwealth and the health MDGs

he Millennium Development Goals (MDGs) represent a global framework agreed by all the world's countries and leading development agencies for combating the hunger, poverty and disease burden affecting billions of people. Global efforts are geared towards the achievement of these goals by 2015. As the agreed deadline approaches, the international community will meet at the United Nations for a high-level summit in September 2010 to review progress made towards achieving the goals and identify what challenges remain and what still needs to be done in order to be on track to meet them over the next five years.

Three of the MDGs, goals 4, 5 and 6, are health-related. As a contribution to the global review, this year's Commonwealth Health Ministers' Meeting offers a unique opportunity to discuss the advances Commonwealth governments have made towards achieving the health-related MDGs.

The *Commonwealth Health Ministers' Update 2010* seeks to give an overview of the progress made in Commonwealth countries with regard to the health-related MDGs, with snapshots from different regions of the Commonwealth. It also outlines some of the strategies being used to achieve the health MDGs, such health system strengthening, Public-Private Partnerships and e-health strategies.

It is hoped that this publication will support and reinforce the deliberations of the Commonwealth Health Ministers' Meeting in 2010, and serve as a useful resource for policy-makers, health officials, practitioners and researchers.

Achieving the health-related MDGs will impact massively on the lives of a large proportion of Commonwealth citizens, especially poor, disadvantaged and marginalised groups. However, none of the individual goals can be accomplished without simultaneously achieving the other health-related MDGs. For instance, not reaching the HIV/AIDS targets will undermine progress in reducing child mortality, improving maternal health and in combating tuberculosis and malaria.

Furthermore, the health-related MDGs cannot be achieved if the other MDGs are not on track as well. Poverty, hunger, gender inequality, low educational attainment and inadequate economic growth all have a negative impact on health outcomes.

There is a strong need for an adequately funded multi-sectoral response if the health-related MDGs are to be realised. We are confident that the fundamental Commonwealth principles of mutual cooperation and solidarity, and the shared experiences, technical expertise and resources, will support member countries in their efforts to achieve all the MDGs, not just the health-related ones.

We would like to express our gratitude to all the authors and organisations who have contributed papers to this year's *Commonwealth Health Ministers' Update*.



At The Point Of Care For 40 Years

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Overview

Awareness, mobilisation and implementation

article by Lord Nigel Crisp,

Independent crossbench member of the House of Lords

There have been many outstanding successes in delivering the health-related MDGs. A number of countries have made very good progress and several global and multinational organisations have worked very successfully with countries to promote improvements in many areas. Lives have been saved and disease and disability avoided. This is not, however, the whole picture. There has been poor progress in some countries, maternal deaths are not reducing globally sufficiently quickly to meet the agreed MDG goals and there remains much more to do. There is an urgent need for faster progress.

wo thousand and ten is globally a year of review and recommitment to the Millenium Development Goals (MDGs). It is an opportunity to be clear about what has worked in the past and to make the changes necessary to accelerate progress in the future.

This paper is a personal view based on my experience running the largest health system in the world and subsequently working with and learning from people in a number of mid-and low-income countries. It is my personal perspective on what has worked in the past and the changes needed for the future. It is the perspective of a chief executive and implementer rather than a policy-maker, consultant or academic.

It is emphatically not, however, about suggesting that techniques and approaches developed in the United Kingdom, the United States or elsewhere will solve the problem. Indeed, I have written elsewhere in these papers about the fact that there needs to be a mutual transfer of knowledge between high-income and low-income countries and that richer countries have a lot to learn from poorer ones. There is a deep vein of innovation in many low-income countries with a lot of the progress towards achieving the MDGs being made through the establishment of different staffing structures – based on mid-level and community workers – and through the creation of social enterprises and social action which involves communities, families and, particularly, women as the natural health leaders in any community. (Crisp, N. *Health Systems Strengthening for the MDGs: Turning the World Upside Down.* 2010).

Delivery of the MDGs takes place in a context where global institutions and high-income countries hold most of the power and the resources and have played a very large role in leading implementation globally. This may have been appropriate at a time when knowledge about how to achieve the MDGs was being generated and policy developed. Now, however, whilst there are both global as well as national responsibilities for making continuing progress, I would argue that the balance needs to shift to place mid- and low-income countries firmly in the lead. Solutions will ultimately be local and will be created by bringing together local understanding and experience with expertise and knowledge from around the world. It needs to be done under national and local leadership.

The need for significant additional resources is a shared responsibility. National governments and their international partners need to work

together to secure the additional funding that is required and to deal with what is, perhaps, the greatest bottleneck of all, the critical shortages of health workers in the countries with the greatest burdens of disease.

I hope this paper will provide a stimulus to debate, challenge the current arrangements and help ministers to take even more control of this agenda. It starts by looking at the process of delivering the changes and improvements needed.

The awareness, mobilisation and implementation cycle

There is a simple three part cycle involved in making improvements on this scale, which needs to constantly be repeated as progress is made and the environment changes.

These three parts are:

- The raising of awareness and understanding of the problems and of the urgent need to make progress.
- The mobilisation of support and resources and the planning of action.
- Implementation within a health system.

There are many groups which have played their part in this first stage of raising awareness globally, nationally and locally and which need to continue to do so. Government leaders including presidents, prime ministers and first ladies have helped draw attention to problems and the need for progress; traditional leaders and civil society groups have helped change attitudes and clinicians and health groups have advocated specific actions. These actions have been replicated internationally by leaders from inter-governmental bodies, civil society groups and health organisations.

The second part involves both the mobilisation of support and resources and the development of strategies, policies and plans for delivering progress. Ideally the planning process is itself collaborative, involving all the interested parties and thereby building a coalition of interest and shared leadership for subsequent implementation. Planning in this way can be very motivating with all the partners sharing in a collective vision and building the energy necessary to make progress.

The most important concept, adopted by many countries, is to have a single plan for health which integrates action on the MDGs with all other aspects of health planning and which is itself a part of a wider national plan for development. All the agencies operating in a country, international as well as local, need to work towards this plan, sharing resources and endeavours wherever possible. Most countries and global agencies have mechanisms in place to do this and are working towards aligning and coordinating efforts as effectively as possible. In practice this has often proved very difficult, given the number of organisations involved and their different accountabilities.

The final part, implementation within a health system, is itself made up of a number of different elements and is generally the least well developed of these three parts. Whilst in most countries there are active processes for raising awareness and for planning, there is often not a defined process for how implementation will happen with the result that different approaches are taken by different organisations and results can be very patchy. This issue is explored further in the next section.

I have described these three parts as a cycle because they need to be constantly repeated. Over time and as circumstances change it will be necessary to continue to build awareness and adapt messages to maintain freshness and keep drawing wider public attention to the problem. The health MDGs have constantly to compete with other issues for priority. Awareness raising, advocacy and campaigning have to be maintained.

Plans also need to be adapted – as progress is made or other factors change – so that they are appropriate to the new circumstances. The process of planning can itself contribute to the awareness raising. Similarly the implementation processes need to change as new knowledge is gained from early implementation and external sources.

This cycle needs to be undertaken and repeated globally, nationally and at provincial or state and district and more local levels. There are global, national and more local needs for awareness, mobilisation and implementation.

The implementation cycle

This is in many ways the hardest part because it involves the actions of thousands of health workers and millions of citizens and takes place within a changing health system. Unless improvement takes place at the most local level in the behaviour of members of the public and interactions of patients and clinicians all the awareness raising and planning is a waste of time. Improvement will not take place simply because there is widespread awareness of the problem and good policies, there needs to be an understanding about how to make change and a process for doing so.

Equally there needs to be an understanding that a health system is a system where any change in one part impacts on all the other parts of the system. In some countries the health system itself is very weak and underdeveloped and the process of delivering the MDGs needs to be part of wider plans to strengthen the whole system. If it is treated as an add-on it will inevitably draw resources away from the existing system and damage its operation. The MDGs need to be seen as priorities for delivery within a system and as contributing to its overall strengthening.

The actual process adopted in a country will depend on local circumstances and local cultures and traditions. Some countries will, for example, be more amenable to following instructions dictated by the ministry; others will need to have maximum local autonomy. Overall, however, I think there are five key elements to a sound implementation process:

Leadership that brings together all the relevant players and secures accountability throughout the system.

- Engagement of health workers in planning and implementing improvement in their own work area.
- The training and development of health workers with the right skills to play their part both in delivering services and in improving the system and services.
- Constant learning and adapting both from inside and outside.
- Continuous external and internal communication.

Taking these in turn, the actual nature of leadership and accountability in any country will in part be culturally dependent. The key point here is that leaders are needed at every level – national, provincial and local – and, similarly, there need to be individuals who are accountable for delivery at every level.

Groups and team are also important. In practice making improvement in any of the MDGs areas will require the bringing together of leaders from different sectors – governmental, civil society and clinical – because action needs to be taken at the same time within each of these sectors. Improvements in maternal mortality, for example, depend on government prioritising and resourcing, on changes in social attitudes often led by traditional leaders or civil society – for example, condom use – and on ensuring, under clinical direction, that the right steps are taken clinically. Similarly teams are important in ensuring accountability because it is generally teams which deliver healthcare, and accountable individuals needs to be able to draw support from people of different disciplines.

The second element of implementation is to ensure that, within this leadership and accountability framework, the actual health workers who will deliver the service are able to help shape, design and re-design it based on their own knowledge and experience. Their engagement in this way will both secure their 'ownership' of the goals of the service and allow for a continuous process of improvement. There are now tested improvement methodologies to do this, as I describe in the later paper (Crisp, N. *Health Systems Strengthening for the MDGs: Turning the World Upside Down.* 2010), which need to be at the centre of implementation. The danger is that without this sort of engagement some health workers will feel they are being made to do things they do not think are right and appropriate and that, as a result, attitudes and motivation may worsen.

The third element is to ensure that there is the right mix of health workers to deliver the service improvement and that they have the skills to do so and, as described above, to contribute to the design of their service and make continuous improvements. This means in practice training cadres of workers to do the tasks that actually need to be done in the country – in the way that most mid-level and community health worker training happens now – and educating the traditional health professionals to be able to operate in the specific environment of the country. The actual mix of the different cadres that are needed will be determined locally, rather than by reference to some norm, often developed in countries with different circumstances. It also means ensuring that large numbers of health workers are trained in service improvement techniques.

The implementation process also needs, fourthly, to involve continual feedback and learning from the actual experience of implementation – and the ability to adapt as lessons are learned – and a continual review of what can be learned from elsewhere. It will be particularly important to learn from other countries with similar problems and similar resources which are also at a similar stage in working to deliver the MDGs.

Fifthly and finally, implementation needs to involve continuous

communication, both externally and internally. Implementing the MDGs is a very difficult process in itself and, in some areas, will generate opposition. It is important for there to be constant reporting on progress to maintain momentum and the morale of all those involved. Absence of communication can lead to a falling off of interest and attention to these issues and a sense of failure. Communication needs to be built in to the whole implementation process.

What needs to change in order to accelerate progress by 2015?

I would argue on the basis of this analysis that there are three major changes needed to accelerate progress:

- National leaders need to take much greater control of delivery with international partners supporting their efforts – recognising that implementation is essentially a local process that needs to be led locally.
- There needs to be much more attention given to developing robust processes for implementing improvements within a health system – which incorporate the essential ingredients of leadership, health worker engagement in service improvement, appropriate skill mixes and training, constant learning and continuous communications.
- Increased resourcing with particular attention to increasing massively the numbers of health workers trained.

The Commonwealth is very well placed to take forward these and other changes. \blacklozenge

Lord Nigel Crisp is an independent crossbench member of the House of Lords and works mainly on international development and global health. His new book *Turning the world upside down – the search for global health in the 21st century* was published in January 2010. It takes further the ideas about mutual learning between rich and poor countries that he developed in his 2007 report for the Prime Minister – Global Health Partnerships: the UK contribution to health in developing countries – and shows how this will shape healthcare in the future. From 2000 to 2006, he was both Chief Executive of the NHS, the largest health organisation in the world, and Permanent Secretary of the Department of Health and led major reforms in the English health system. A Cambridge philosophy graduate, he worked in community development and industry before joining the NHS in 1986. More information is available at nigelcrisp.com

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Chapter 1

Status of maternal, newborn and child health in the Commonwealth: an overview

article by Wajiha Javed, Arjumand Rizvi and Zulfiqar A Bhutta Division of Women and Child Health, The Aga Khan University, Karachi, Pakistan

For a nation to prosper it is important that it should focus on the health of its under-privileged female population as well as its children whose well being will lead to a better developed nation in the future. Recent years have seen a major emphasis on the persisting burden of maternal, child and newborn mortality globally with a particular focus on the Millennium Development Goals (MDGs) for maternal and child health. The MDG 4 goal is to reduce under-5 mortality by two-thirds, between 1990 and 2015 and the MDG 5 is to reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio and to achieve, by 2015, universal access to reproductive health. Issues pertaining to the burden of this mortality and on interventions to reduce it have been the subject of several recent *Lancet* series and other publications relating to maternal and child health¹⁻⁵.

t is a well proven fact that social and economic development cannot occur without human development, and health is the cornerstone upon which human development is built. Just as health is recognised as a priority globally, it should be an important issue for the development of the Commonwealth also. According to the most recent estimates, the 54 nations of the Commonwealth account for a third of the world's population, but only 16 per cent of the world's GDP. To successfully address the health needs of Commonwealth citizens, we must also focus on its social determinants. Education, gender, human rights, economy, social status and human development all play an important role in shaping human health.

Fourteen of the 54 Commonwealth nations are among the 50 countries and territories of the world that have the highest under-5 mortality, with similarly critical nutritional and maternal health and well-being indicators. For a lot of these countries, war and internal discord have made it almost impossible to obtain current and accurate information on maternal, child health and survival indicators. And as maternal and child survival efforts can only be effective if they are based on accurate information about how and where mothers and babies are dying, there is a high probability that attempts to improve maternal, newborn and child health without accurate information on maternal and child mortality from the Indian subcontinent¹⁻⁵, corresponding information from the African nations is less reliable.

This article gives a brief overview and outlines the state of maternal, neonatal, and child survival and its determinants in the Commonwealth states and then a further empirical analysis that might be relevant to policy-making. It also suggests a template for evaluating evidence-based child survival and nutrition interventions that can make a difference and the current state of coverage in the Commonwealth states grouped according to WHO regions. Our original report also includes country specific profiles (not included in the current article) with an overview of current maternal, newborn, and under-5 child health indicators, their causes, including nutritional status, and the current coverage of maternal, newborn and child survival interventions. In this summary

paper we provide estimates of the impact of providing evidence-based, cost-effective newborn and child survival interventions based on previous objective efforts⁶⁹. Such analyses are necessary to facilitate decisions for wise investment in existing programmes and development of cost-effective new programmes. The impact of intervention packages can assist programme planning and help donors and policy-makers identify step-wise targets for investments in maternal, newborn and child health.

Many of the key interventions to prevent maternal, neonatal and child deaths can be delivered to whole populations through community-based approaches and outreach programmes. However, efforts for implementing and scaling up these interventions are slow in most countries of the Commonwealth. More importantly, where interventions exist, monitoring and evaluation frameworks are poor and effectiveness evaluation and research extremely limited or non-existent in many cases. Interventions related to some of the social determinants of health are normally implemented by sectors other than health but are critical to supporting public health interventions. This paper is a brief overview from our comprehensive report on the state of newborn and child survival in the Commonwealth with the potential impact of evidence-based interventions in terms of the MDG 4 and MDG 5 targets.

Methodology

We compiled our report by searching for raw information from various available databases like WHO, UNICEF, WB, STATCOMPILER, DHS SURVEY and MICS reports. In our original report we included those countries which were part of the Commonwealth, focused on our search strategies of reviewing and retrieving with each country having specific tables showing specific demographics, child and neonatal mortality rates, their causes, determinants and coverage indicators. A subsequent part elaborates upon the ways we compiled our information in datasets and the next part focuses on how the information collected was analysed and presented as separate country profiles which were later grouped as regions for our analysis for our paper. The last part takes into consideration on how we calculated the impact of interventions in reducing child mortality by cause and region.

Search strategies and review of data sources

Our original report builds on the work of others. The search was divided into three parts.

- Country specific demographics including country rankings, economy, education and political indicators.
- Maternal, Newborn and Child Mortality rates, causes, determinants and indicators.
- Current coverage rates per country at Level I and II of evidence (Table 1).

Compiling and analysing information

The Information collected from various data sources

was compiled in an Excel sheet with the various data sources for each country. For the analysis data was exported to SPSS and separate country profiles. The final data was presented in the form of tables, graphs and pie charts. Maps on maternal mortality, neonatal mortality, infant mortality, under-5 mortality rates and low birth weight (LBW), underweight, stunting, wasting nutritional deficiencies and HIV prevalence were made from the same data entered on SPSS Maps.

Description of the impact model

The countries of the Commonwealth were first divided into regions of Africa, Caribbean, South-Eastern Asia, Western Pacific and the developed nations of the Commonwealth. The coverage rates available per country for each intervention were averaged out per region and a mean of intervention coverage calculated per region.

To determine the proportion of maternal, neonatal and child deaths that can be averted, the effect of intervention strategies outlined in the *Lancet* Neonatal and Child Survival Series^{5,7,9} was estimated, i.e. the number of deaths that can be averted if these proven interventions were



Maternal and newborn health

(IPT)

Antenatal visits for women Skilled attendant at birth Postnatal care Contraceptive prevalence rate Unmet need for family planning Maternal TT Basic obstetric care Emergency obstetric care Percent receiving PMTCT Per cent of pregnant women use ITN s Per cent pregnant women using anti-malarials Newborn and child interventions

Immediate breastfeeding Exclusive breastfeeding Continued breastfeeding Complementary feeding rate Use of iodized salt Vitamin A supplementation Immunisation status Water, sanitation and hygiene coverage Malaria prevention and diarrheoa coverage Pneumonia coverage HIV coverage

provided at universal coverage of 90 per cent. In addition we also evaluated the potential impact from nutrition interventions that might make a difference to stunting and survival. The intervention effects were then applied to estimates of the current numbers of deaths due to each cause assuming that the population impact increases linearly with coverage.

The impact of delivering these interventions in 'packages' according to mode or place of service delivery was also analysed. This is the way most interventions are integrated and delivered in health systems. The interventions considered can be slotted in one of these three service delivery modes: outreach, family and community, and facility-based clinical care. Delivering interventions in packages is also more costeffective.

Major findings and summative analysis

Demographics

The Commonwealth countries have a combined population of 1.9 billion people (One-third of the world population and about 21 per cent



of the total world land area¹⁰ (Figure 1). 1.4 billion people live in the Indian subcontinent, and 93 per cent live in Asia and Africa combined. The five largest Commonwealth nations by population are India (1.1 billion), Pakistan (165 million), Bangladesh (148 million), Nigeria (137 million) and the United Kingdom (60 million). Tuvalu is the smallest member, with only 11,000 people. The three largest Commonwealth nations by area are Canada at 10 million km², Australia at 7.7 million km² and India at 3.3 million km². The three largest Commonwealth economies, as measured in purchasing power parity are India (US\$2.9 trillion), Britain (US\$2.1 trillion) and Canada (US\$1.3 trillion)¹¹.

Health challenges

Some of the health challenges faced by the Commonwealth are polio, malaria, tuberculosis and HIV. In 1988, many of the 350,000 reported cases of polio were in Commonwealth countries. Since 1988, the global incidence of polio has declined by more than 99 per cent, and only three Commonwealth countries are still polio endemic. Polio elimination will save the world over US\$1 billion a year and result in huge humanitarian gains. The Commonwealth is contributing to this effort and ensuring that polio is made a thing of the past¹².

There are 825,000 preventable tuberculosis (TB) deaths each year in the Commonwealth. Commonwealth countries account for nearly 30 per cent of the world population but carry the burden of 49 per cent of total TB deaths. TB is a disease that disproportionably affects the poor and prevents Commonwealth citizens from escaping poverty¹².

Malaria is a deadly parasite that threatens 40 per cent of the world's population. Many are Commonwealth citizens that live in remote rural areas and conditions of poverty. Malaria is the biggest single killer of



African children (20% of child deaths) and often leaves those who survive with brain damage or paralysis. It leaves pregnant women and their children susceptible to low birth weight, anemia and other disorders³. Under-5 deaths in children from malaria in Commonwealth have ranged per cent from 0 per cent in the WHO Americans region of Antigua, Australia and Bahamas to as high as 33 per cent in the African region.

At the end of 2005, 38.6 million people were living with HIV. Twothirds of them are Commonwealth citizens out of which 60 per cent of them are women¹³. 4.1 million people became newly infected and 2.8 million lost their lives to AIDS. Twelve million children in Africa are without parents because of HIV/AIDS and many are without basic care or education. Eight out of 19 Commonwealth countries in sub-Saharan Africa have HIV/AIDS adult prevalence rates above 10 per cent with Swaziland having an HIV adult prevalence rate of about 33 per cent. On the contrary adult HIV prevalence in other Commonwealth regions such as Malta and Antigua was as low as 0.1 per cent.

Mortality according to economy

In our data the Commonwealth countries fell into the four broad categories of the World Bank Atlas method, low income, US\$975 or less; lower middle income, US\$976 – US\$3,855; upper middle income, US\$3,856 – US\$11,905; and high income, US\$11,906 or more. We analysed country data by linear regression and saw that countries with poor economies (as assessed by GNI per capita) also had the highest burden of maternal, neonatal and child mortalities (Figure 2). There is a wide disparity in economies and maternal mortality ratios with the highest maternal mortality of 2,000 deaths per 10,000 live births in an African nation with a low GNI per capita of US\$320,

whereas the United Kingdom has a maternal mortality ratio of 11 deaths per 10,000 live births in the year 2000 and has a GNI per capita of US\$45,390. Similar is the case with neonatal and child deaths and their correlation with the countries economy.

Infant and child health

Infant mortality and child mortality is one of the greatest challenges facing the Commonwealth today. In 2000 more than 10 million children died, most from preventable causes and almost all in poor countries¹⁴ In the same year, there were 175 deaths per 1,000 live births in sub-Saharan Africa and only 6 per 1,000 in industrialised countries a 29-fold difference¹⁵. The total number of under-5 deaths in the world has declined from 12.5 million in 1990 to 8.8 million in 200816. Because there is substantial variation in death rates within these regions ranging from only 3 per 1,000 live births for under-5 mortality to 270 per 1,000 live births in two countries of the Commonwealth (Figure 3), planning for health interventions should take place at a national level in the Commonwealth states. Most of these deaths are due to pneumonia, diarrhoea, malaria, measles and AIDS. Infant mortality rates also vary across the Commonwealth countries ranging from 4 per 1,000 live births to 159 per 1,000 live births in poorer African nation



of the Commonwealth.

Every year, 4 million babies die during the first month of life¹⁴. According to the latest figures from State of the World's Children, a child born in a least developed country is almost 14 times more likely to die during the first 28 days of life than one born in an industrialised country. Almost 40 per cent of under-5 deaths occur in the first 28 days of life, three-quarters of which take place in the first seven days. Deaths in this early neonatal period have risen from 23 per cent of the under-5 mortality rate in 1980 to 28 per cent in 2000. Neonatal mortality rates are around 20-50 per cent higher for the poorest 20 per cent of households than for the richest quintile. Like maternal deaths, 98 per cent of neonatal deaths occur in low and middle-income countries, and

most are preventable.19

In the Commonwealth states there is a wide disparity in neonatal deaths ranging from 1 per 1,000 live births to 57 per live (Figure 4). Globally, the main direct causes of neonatal death are estimated to be pre-term birth (28%), severe infections (26%), and asphyxia (23%). Neonatal tetanus accounts for a smaller proportion of deaths (7%), but is easily preventable¹⁷.

Maternal complications in labour carry a high risk of neonatal death, and poverty is strongly associated with an increased risk. Preventing deaths in newborn babies has not been a focus of child survival or safe motherhood programmes. While we neglect these challenges, 450 newborn children die every hour, mainly from preventable causes,



Table 2: Countries progress to MDG4 and MDG5 goals

Country
Antique & Barbuda
Antigua & Darbuua
Ausualla The Dehemoe
nie Danalias Danaladaab
Bangiauesii
Barbados
Belize
Botswana
Brunei Darussalam
Cameroon
Canada
Cyprus
Dominica
Fiji
Gambia, The
Ghana
Grenada
Guvana
India
Jamaica
Kenva
Kiribati
Lesotho
Molowi
Malavaia
Maldivas
Malta
Maita
Mauritius
Mozambique
Namibia
Nauru
New Zealand
Nigeria
Pakistan
Papua New Guinea
St Kitts & Nevis
St Lucia
St Vincent & Grenadines
Samoa
Seychelles
Sierra Leone
Singapore
Solomon Islands
South Africa
Sri Lanka
Swaziland
Tanzania
Tonga
Trinidad & Tobago
Tuvalu
llaanda
United Kingdom
Vopustu
Vanualu Zambia
Zailiula
Total

MDG 4	MDG 5
On track	Low
On track	Low
On track	Low
Insufficient	Very high
On track	Low
On track	Low
No progress	High
On track	Low
No progress	Very high
On track	Low
Insufficient	Very high
No progress	Very high
On track	-
Insufficient	Moderate
Insufficient	High
On track	Low
Insufficient	Very high
Insufficient	Moderate
No progress	Very high
No progress	Very high
On track	Low
On track	Moderate
On track	Low
On track	Low
In sufficient	High
Insufficient	High
On track	-
On track	Low
No progress	Very high
Insufficient	High
Insufficient	High
On track	Low
No progress	High
Un track	Low
In sufficient	Moderate
Insufficient	High
Un track	Low
No progress	High
No progress	Very high
On track	-
Un track	Moderate
UN TRACK	Very high
Insufficient	Very high
Un track	LOW
UN TRACK	LOW
No progress	Very high
53	

Nutritional factors have a very important role to play in the well being of children and infants. The prevalence of under-5 underweight, stunting and wasting are important determinants of child health in a nation. Poorer nations of the Commonwealth have a percentage of underweight children as high as 45 per cent whereas an affluent country has only a 2.1 percent of underweight children under 5 years of age. Wasting as represented by weight for height for children under 5 years of age also shows a very diverse trend across the Commonwealth states. It is as high as 23 per cent and as low as 1 per cent hence solutions and interventions in promoting nutrition in children have to be country specific in the Commonwealth.

A similar trend is seen in stunting (Figure 5) prevalence going as high as 54 per cent in African nations of the Commonwealth whereas affluent nations with a high Human Development Index have a very low prevalence of stunting of around 4 per cent in children under 5 years of age. Specific Nutritional deficiencies are also region specific in the Commonwealth countries. Moderate and severe nutritional deficiencies account for just 0.1 per cent of the under-5 population at one instance and 13 per cent of the children under 5 years of age in another country. Areas in the Commonwealth where iodine deficiency is common have a high coverage rate of iodized salt supplementation ranging from 90 per cent to 100 per cent as opposed to just 7 per cent in other areas. Hence there is a wide variation among Commonwealth nations in nutritional deficiencies as well. Countries of the Commonwealth where Vitamin A deficiency is high their coverage rates of vitamin A supplementation are also high.

Low birth weight is an important indirect cause of death. The prevalence of LBW infants is also

which is a huge moral dilemma in the 21st century¹⁷.

Nutritional indicators

Infant health and Child health is a problem that is closely linked with poverty and can only be addressed by looking at the health of the entire family unit – these means ensuring access to basic nutrition and clean water, education, medical care and economic opportunities. Poor families are often unable to afford basic healthcare and immunisations.

dependant on the economic prosperity of the Commonwealth nations, highly affluent nations like have a LBW of infants of 6 per cent whereas poorer nations where maternal antenatal health is compromised has a LBW prevalence of 30 per cent.

Maternal health

The fifth UN Millennium Development Goal is to improve maternal health – measured by a reduction of the maternal mortality ratio by

Table 3: Preventable maternal deaths by cause and region

				Region			Total
		African region	Caribbean	Developed	South East	Western	
					Asia	Pacific	
Countries in region		18	12	5	5	12	
Cause of death							
Antepartum	Deaths ('000)	4,624	200	2	6,115	372	11,313
haemorrhage	% of total cause sp deaths	40.9%	1.8%	0.0%	54.1%	3.3%	100.0%
Ū	% total maternal deaths	5%	3%	2%	5%	5%	5%
	Death Averted ('000)	939	3	0	1,151	29	2,123
	% preventable deaths	20%	2%	2%	19%	8%	19%
Postpartum	Deaths ('000)	26,201	1,135	13	34,653	2,107	64,109
haemorrhage	% of total cause sp deaths	40.9%	1.8%	0.0%	54.1%	3.3%	100.0%
Ū	% total maternal deaths	29%	18%	11%	26%	26%	27%
	Death Averted ('000)	17,465	309	6	22,066	889	40,734
	% preventable deaths	66.7%	27.2%	43.6%	63.7%	42.2%	63.5%
Abortion	Deaths ('000)	3,546	770	10	7,545	459	12,330
	% of total cause sp deaths	28.8%	6.2%	0.1%	61.2%	3.7%	100.0%
	% total maternal deaths	4%	12%	8%	6%	6%	5%
	Death Averted ('000)	1,054	82	2	2,110	80	3,328
	% preventable deaths	29.7%	10.7%	21.0%	28.0%	17.4%	27.0%
Obstructed labour	Deaths ('000)	3,728	860	0	12,442	756	17,787
	% of total cause sp deaths	21.0%	4.8%	0.0%	70.0%	4.3%	100.0%
	% total maternal deaths	4%	13%	0%	9%	9%	7%
	Death Averted ('000)	1,632	45	0	5,159	154	6,990
	% preventable deaths	43.8%	5.3%		41.5%	20.3%	39.3%
Hypertensive disorders	Deaths ('000)	8,274	1,650	19	12,045	732	22,721
	% of total cause sp deaths	36.4%	7.3%	0.1%	53.0%	3.2%	100.0%
	% total maternal deaths	9%	26%	16%	9%	9%	10%
	Death Averted ('000)	6,013	795	3	8,964	431	16,206
	% preventable deaths	72.7%	48.2%	18.2%	74.4%	58.8%	71.3%
Infections including HIV	Deaths ('000)	14,549	494	2	15,354	933	31,333
-	% of total cause sp deaths	46.4%	1.6%	0.0%	49.0%	3.0%	100.0%
	% total maternal deaths	16%	8%	2%	12%	12%	13%
	Death Averted ('000)	10,162	272	1	11,681	501	22,618
	% preventable deaths	69.8%	55.1%	51.0%	76.1%	53.7%	72.2%
Anemia	Deaths ('000)	3,364	0	0	16,943	1,030	21,337
	% of total cause sp deaths	15.8%	0.0%	0.0%	79.4%	4.8%	100.0%
	% total maternal deaths	4%	0%	0%	13%	13%	9%
	Death Averted ('000)	1,315	0	0	6,678	276	8,270
	% preventable deaths	39.1%	-	-	39.4%	26.8%	38.8%
Other causes	Deaths ('000)	26,642	1,316	71	26,738	1,625	56,392
	% of total cause sp deaths	47.2%	2.3%	0.1%	47.4%	2.9%	100.0%
	% total maternal deaths	29%	20%	60%	20%	20%	24%
Total maternal deaths		112452	7418	126	152423	9721	282,140
Total preventable deaths		60.104	2.500	20	78.397	4.066	145.088
% preventable deaths		53.4%	33.7%	16.1%	51.4%	41.8%	51.4%
/o provontuble deduis		00.470	00.170	10.170	01.770	11.070	01.170

Figure 5: Stunting prevelance in the Commonwealth



Table 4: Maternal deaths averted by interventions

		Region					
		African Region	Carribean	Developed	South East Asia	Western Pacific	
Maternal interventions							
Promotion of reproductive health and family planning	N %	21,524 19.1%	993 13.4%	8 6.1%	20,588 13.5%	1,706 17.6%	44,818 15.9%
Basic 4 visit antenatal care package	Ν	4,754	118	0	7,701	213	12,786
ncluding	%	4.2%	1.6%	0.0%	5.1%	2.2%	4.5%
 Seeking skilled care for child birth in community) but including breech detection, twins and abnormal lie Tetanus toxoid 							
3. Iron Folate administration	Ν	41	0	0	474	6	521
	%	0.0%	0.0%	0.0%	0.3%	0.1%	0.2%
4. Screening of UTI and UTI	N	1,291	5	0	1,638	37	2,970
nanagement	%	1.1%	0.1%	0.0%	1.1%	0.4%	1.1%
). Hypertension screening and treatment	N %	3,423	113	0	5,589 3 7%	169	9,295
	70	3.070	1.370	0.0%	5.770	1.770	3.3%
Ashirin	N	1 266	252	0	1 8/3	112	3 171
. Азріпіт	IN 0/.	1,200	2.52	0.2%	1,043	1.20/	1 20/
Calcium	70 N	1.170	3.4 %	0.370	2 252	1.2 %	6 120
	IN 0/.	2,234	44J 6.0%	0.6%	3,232 2,10/	2.0%	2 20%
untibiotics for protorm runture of	70 N	2.0%	0.0%	0.0 %	2.170	2.0%	2.270
membranes and suspected	N %	5,417 4.8%	0.4%	0.2%	3.8%	1.7%	4.0%
chorioamnionitis and post abortion care	70	4.070	0.470	0.270	0.070	1.7 /0	4.070
Basic obstetric care (clean delivery)	Ν	4,674	159	0	6,120	80	11,033
	%	4.2%	2.1%	0.0%	4.0%	0.8%	3.9%
Basic obstetric care (active management	Ν	14,018	237	1	17,559	612	32,428
of third stage of labour, including misoprostol, oxytocics, ergotamine and manual removal of the placenta) also ncluded D&C for post abortion care	%	12.5%	3.2%	0.9%	11.5%	6.3%	11.5%
Basic obstetric care for eclampsia	Ν	2,036	165	2	2,747	98	5,048
Magnesium Sulphate)	%	1.8%	2.2%	1.4%	1.8%	1.0%	1.8%
Emergency Obstetric care (including	Ν	9,991	74	0	18,443	621	29,129
lood transfusion and LSCS)	%	8.9%	1.0%	0.4%	12.1%	6.4%	10.3%
TN/IPT in pregnancy in malaria endemic	Ν	480	0	0	3,050	185	3,715
areas	%	0.4%	0.0%	0.0%	2.0%	1.9%	1.3%
-IV prevention and MTCT	Ν	3,299	107	0	4,691	272	8,369
	%	2.9%	1.4%	0.3%	3.1%	2.8%	3.0%

three-quarters between 1990 and 2015. Yet maternal mortality in many developing countries of the Commonwealth has barely improved over the past decade.

A woman in the poorest country has more than 300 times greater risk of dying in pregnancy and childbirth than her counterpart in a developed country¹⁹. Maternal mortality ratio in the Commonwealth was as low as 0 per 100,000 live births as compared to as high as 2,000 per 100,000 live births

The risk of a woman dying as a result of pregnancy or childbirth during her lifetime is about one in six in the poorest parts of the world compared with about one in 30,000 in Northern Europe¹⁸. This difference in the risk of death represents the widest disparity of all human development indicators. In 2005, 536,000 women died from causes related to pregnancy and childbirth¹⁹. The majority of women die because they do not receive the healthcare they need. Most of these deaths could be prevented if more women were literate and had access to basic medical care during pregnancy, childbirth and the post-partum

period. Countries that provide basic maternal and newborn health services, such as skilled birth attendants and access to emergency obstetric care, have been able to reduce maternal deaths within a short period of time for a minimal cost per capita.

This situation of maternal and child health (MNCH) in the Commonwealth and the fact that many countries are off track to reach the MDGs, requires specific actions to redress the situation. There is now sufficient evidence from many recent series and literature reviews that we have the interventions that can make a significant difference to maternal, newborn and child mortality. The key issue is one of delivery strategies to ensure that all those in need are provided essential interventions across the continuum of care.

Progress towards MDG 4 and 5

We considered that countries are 'on track' if their under-5 mortality rates from 1990–2006 showed an average annual reduction rate of at least 4.0 per cent, roughly the improvement needed for all developing

Table 5: Preventable neonatal deaths by region and cause

				Region			Total
		African region	Caribbean	Developed	South East Asia	Western Pacific	
Countries in region		18	12	5	5	12	
Cause of death							
Preterm	Deaths ('000)	152	0	2	47	4	206
	% of total cause sp deaths	74.0%	0.2%	0.9%	23.0%	1.9%	100.0%
	% total NND deaths	26.2%	45.1%	44.8%	20.3%	39.8%	24.8%
	Death Averted ('000)	74	0	0	22	1	99
	% preventable deaths	48.8%	31.1%	20.1%	47.5%	37.3%	48.0%
Birth Asphyxia	Deaths ('000)	150	0	1	51	2	204
	% of total cause sp deaths	73.5%	0.1%	0.2%	25.2%	1.0%	100.0%
	% total NND deaths	25.8%	13.6%	12.7%	22.0%	20.2%	24.6%
	Death Averted ('000)	69	0	0	22	1	92
	% preventable deaths	46.2%	25.8%	4.6%	43.5%	38.2%	45.3%
Congenital	Deaths ('000)	40	0	1	19	1	61
oongonnan	% of total cause sp deaths	66.0%	0.2%	1.7%	30.6%	1.5%	100.0%
	% total NND deaths	7.0%	13.0%	26.6%	8.0%	9.5%	7.4%
	Death Averted ('000)	2.9	0.0	0.1	1.4	0.1	4.4
	% preventable deaths	7.2%	5.7%	4.9%	7.2%	7.2%	7.2%
Infections	Deaths ('000)	149	0	0	77	2	228
	% of total cause sp deaths	65.4%	0.1%	0.1%	33.6%	0.8%	100.0%
	% total NND deaths	25.6%	20.9%	6.3%	32.8%	18.6%	27.5%
	% preventable deaths	110	U 59.7%	0 36.0%	62 80.5%	ا 64.7%	179 78.4%
Diarrhooa	Deaths (2000)	18	0	0	00.570	04.770	70. 4 70 27
Diarrioea	% of total cause sp deaths	65.5%	0.0%	0.0%	34.0%	0.5%	100.0%
	% total NND deaths	3.1%	0.4%	0.0%	4.0%	1.4%	3.3%
	Death Averted ('000)	5	0	0	2	0	7
	% preventable deaths	25.8%	28.6%	-	-	14.0%	25.2%
Tetanus	Deaths (2000)	31	0	0	16	0	48
	% of total cause sp deaths	65.3%	0.0%	0.0%	33.9%	0.8%	100.0%
	% total NND deaths	5.3% 24	0.3%	0.0%	6.9% 11	3.9%	5.7% 35
	% preventable deaths	75.9%	86.8%	-	-	82.1%	72.5%
Other Causes	Deaths ('000)	43	0	0	14	1	58
	% of total cause sp deaths	73.8%	0.1%	0.7%	24.2%	1.2%	100.0%
	% total NND deaths	7.3%	6.4%	9.6%	6.0%	7.0%	7.0%
Total Neon	atal Deaths ('000)	582	1	4	234	10	830
lotal preventable dea	ths ('000)	288	0	0	119	4	412
% of preventable dea	ths	49.4%	30.3%	11.8%	51.1%	38.0%	49.6%

countries to achieve Millennium Development Goal 4. All countries with under-5 mortality rates of less than 40 are considered 'on track'. If the country's mortality rate in children under-5 years of age is greater than or equal to 40 and the average annual reduction rate for 1990–2006 was between 1.0 per cent and 3.9 per cent the country is considered to be making 'insufficient progress'. If the mortality rate is greater than or equal to 40 and the average annual reduction rate for 1990–2006 was less than 1.0 per cent, the country is considered to be making 'no progress'²⁰.

Thirty out of 54 countries in the Commonwealth that is around 56 per cent of the countries are 'on track' for achieving the MDG 4 target while 13 countries (24.5%) show insufficient progress. Ten countries show no progress at all (19%) and should be targeted as the high priority countries for policy-makers in the Commonwealth (Table 2)²⁰.

Millennium Development Goal 5 was assessed using four broad categories for maternal mortality: low (maternal mortality ratio of less than 100), moderate (maternal mortality ratio of 100–299), high (maternal mortality ratio of 300–549) and very high (maternal mortality ratio of 550 or greater) as per the Countdown and Maternal Mortality

Working Group^{20,21}.

Twenty-four out of 53 countries have a maternal mortality ratio lying in the low category of maternal deaths, five countries in the moderate category,⁸ in the high category of deaths whereas 11 are still in the very high category of maternal deaths.

Due to lack of reliable information on the burden of maternal hemorrhage related deaths due to pre-existing iron deficiency, we assumed a small but plausible proportion of maternal deaths attributed to anemia (40%), which could be averted by blood transfusion in first level facilities. Similarly while we recognised a potential impact on maternal deaths related to unwanted pregnancies and abortions, we did not model the impact of the provision of safe abortion services, but included postabortion care in the model. Although the potential of routine zinc supplementation to prevent childhood morbidity and mortality is well demonstrated, we did not include this in the existing death aversion model for the Commonwealth as plausible delivery strategies at a community level were not available for many poorer countries.

The intervention effects were then applied to estimates of the current numbers of deaths due to each cause assuming that the population

Table 6: Neonatal deaths saved by various evidence-based interventi

Interventions				Total			
		African Region	Caribbean	Developed	South East Asia	Western Pacific	
Immediate breastfeeding	Ν	17.0	0.0	0.0	10.8	0.2	28
	%	2.9%	2.3%	0.6%	4.6%	2.1%	3.4%
Exclusive breastfeeding	Ν	23	0	0	11	0	35
	%	3.9%	3.0%	0.7%	4.9%	1.7%	4.2%
Tetanus toxoid immunisation	Ν	14	0	0	5	0	19
	%	2.3%	0.2%	0.0%	2.1%	2.3%	2.2%
Routine postnatal care and care	Ν	57	0	0	21	1	79
of LBW infants	%	9.7%	9.0%	6.9%	8.9%	10.0%	9.5%
Antibiotics for PPROM	Ν	6	0	0	2	0	8
	%	1.1%	0.3%	0.0%	0.8%	0.6%	1.0%
Cord care and clean delivery kit	Ν	9	0	0	3	0	12
	%	1.5%	0.3%	0.0%	1.4%	0.9%	1.5%
Antenatal steroids	Ν	39	0	0	12	1	51
	%	6.6%	6.9%	2.5%	5.1%	6.9%	6.2%
Neonatal resuscitation	Ν	56	0	0	16	1	72
	%	9.6%	4.2%	0.5%	6.8%	6.6%	8.7%
Emergency obstetric care	Ν	32	0	0	11	0	44
	%	5.5%	1.1%	0.3%	4.9%	3.6%	5.3%
Emergency neonatal care (for	Ν	26	0	0	9	0	36
prematurity, post asphyxial care)	%	4.5%	1.2%	0.8%	3.9%	4.3%	4.3%
Oral antibiotics: pneumonia	N	40	0	0	23	0	63
	%	6.9%	3.0%	0.1%	9.7%	3.6%	7.7%
Injectable antibiotics: sepsis	Ν	75	0	0	42	1	117
	%	12.9%	6.2%	0.4%	17.8%	6.8%	14.1%

1 Cause of death data missing for five countries that were excluded from analysis. Names of the countries are given below

Grenada, India. Singapore, Trinidad and Tobago, Vanuata

2. Coverage of some missing interventions were approximated from countdown highlighted with red in coverage sheet

3. Some interventions were imputed via proxies highlighted with pink in coverage sheet

4. Target coverage set as 100% if existing coverage >95% ,95% if existing coverage 90%-94% and 90% otherwise

impact increases linearly with coverage. The number of deaths prevented for a given cause of death by a given intervention was calculated as:

Deaths prevented =
$$\frac{NxIx(P_1 - P_0)}{(1 - IxP_0)}$$

where N = number of deaths prior to intervention

I = percentage by which intervention reduces deaths

 P_0 = existing coverage of intervention

 P_1 = target coverage for intervention

For each intervention the number of deaths due to a given cause and prevented by that intervention then subtracted from the current number of deaths, before calculating the impact of the next intervention. We estimated impacts based on two approaches: estimation of impacts at universal coverage (99%) and a 'pragmatic' scale up of interventions to levels which we consider feasible within primary healthcare (PHC) systems in the short term calculated as follows; targeting 30 per cent coverage where current coverage of interventions is <=15 per cent, 50 per cent where current coverage is 16-30 per cent, 70 per cent from current coverage rates of 30-50 per cent and 90 per cent or 99 per cent where current coverage rates of interventions are 50-80 per cent and >80 per cent, respectively.

We present the estimated impact of some of these interventions on MNCH outcomes in words and a few tables.

Maternal, newborn and child interventions impact model by regions

Preventable maternal deaths by cause and region

The total number of estimated maternal deaths in the Commonwealth is 282,140,000. The South East Asian states of the Commonwealth had the maximum number of maternal deaths followed by the African countries (Table 3). Out of these almost 53 per cent of maternal deaths were preventable in the African region and 51 per cent deaths could be averted in the South East Asian countries.

In the African region post partum hemorrhage accounted of 29 per cent of maternal deaths and out of these 67 per cent was preventable post partum hemorrhage deaths.

In the Caribbean region 48 per cent of maternal deaths due to hypertensive disorders could have been averted. In the developed countries of the Commonwealth 16 per cent of total maternal deaths were accounted for by hypertensive disorders of pregnancy and out of these 18 per cent could have been avoided by better hypertensive coverage and medications.

In the South East Asian region post partum hemorrhage was responsible for most maternal deaths and avoiding post partum

Table 7: Preventable under-5 deaths by region and cause

				Region			Total
		African Region	Caribbean	Developed	South East Asia	Western Pacific	
	Countries in region	18	12	5	5	12	
Cause of death							
HIV/AIDS	Deaths ('000)	228	0	0	14	0	242
	% of total cause sp deaths	94.2%	0.1%	0.0%	5.6%	0.1%	100.0%
	% total child deaths	13.2%	11.0%	0.0%	1.4%	1.2%	9.0%
	Death Averted ('000)	142	0	0	10	0	152
	% preventable deaths	62.3%	70.1%	72.0%	72.0%	72.0%	62.9%
Diarrhoea	Deaths ('000)	368	0	0	333	3	703
	% of total cause sp deaths	52.3%	0.1%	0.0%	47.3%	0.4%	100.0%
	% total child deaths	21.3%	17.4%	1.4%	34.9%	19.7%	26.1%
	Death Averted ('000)	263	0	0	252	2	517
	% preventable deaths	71.5%	70.7%	73.0%	75.8%	72.7%	73.5%
Measles	Deaths ('000)	93	0	0	63	0	156
	% of total cause sp deaths	59.3%	0.0%	0.0%	40.4%	0.2%	100.0%
	% total child deaths	5.4%	0.0%	0.0%	6.6%	2.7%	5.8%
	Death Averted ('000)	55	0	0	38	0	93
	% preventable deaths	59%	-	-	61%	36%	60%
Malaria	Deaths ('000)	493	0	0	18	0	511
	% of total cause sp deaths	96.5%	0.0%	0.0%	3.5%	0.0%	100.0%
	% total child deaths	28.6%	0.2%	0.0%	1.9%	1.0%	18.9%
	Death Averted ('000)	395	0	0	12	0	408
	% preventable deaths	80.2%	86.4%	-	68.6%	62.9%	79.7%
Pneumonia	Deaths ('000)	457	0	0	341	3	802
	% of total cause sp deaths	57.1%	0.0%	0.0%	42.5%	0.4%	100.0%
	% total child deaths	26.5%	12.6%	4.1%	35.8%	22.6%	29.7%
	Death Averted ('000)	352	0	0	269	2	623
	% preventable deaths	77.0%	69.3%	72.4%	78.8%	71.9%	77.8%
Iniuries	Deaths ('000)	49	0	1	36	1	87
	% of total cause sp deaths	56.4%	0.2%	0.7%	41.4%	1.3%	100.0%
	% total child deaths	2.8%	0.0%	0.0%	2.1%	0.1%	5.0%
	Death Averted ('000)	4	0	0	3	0	8
	% preventable deaths	9.0%	7.1%	4.2%	9.0%	9.0%	9.0%
Total Under-5 dea	ths	1.727	2	4	953	13	2.699
Total preventabl	a deaths	1 212	1	0	584	4	1 801
iotal preveillabl	ie ucaulo	1,212			504		1,001

hemorrhage could avert 64 per cent of deaths. Similar was with the Western Pacific region where post partum hemorrhage accounted for 26 per cent of overall maternal deaths and 42 per cent of which could have been averted with better coverage indicators.

Maternal deaths saved by intervention

In the African states of the Commonwealth almost 19 per cent of deaths could be averted by the promotion of reproductive health and family planning; a further 13% per cent of deaths could have been averted by better coverage of basic obstetric care.

In the Caribbean region of the Commonwealth 13 per cent and 6 per cent of maternal deaths could be avoided by providing better promotion of reproductive health and family planning and calcium in the antenatal care (ANC) package respectively.

In the developed nations of the Commonwealth 6 per cent of maternal deaths could be averted by providing better coverage of family planning. In South East Asia almost 14 per cent of maternal deaths could have been avoided by better family planning and reproductive health facilities.

In the Western Pacific 18 per cent of mothers could have survived with better family planning interventions and 6.5 per cent of deaths could have been avoided with better emergency obstetric care including lower section C section (LSCS) (Table 4).

Preventable neonatal deaths by region and cause

The total estimated composite neonatal deaths are 830,000. The African states of the Commonwealth had the maximum number of neonatal deaths followed by the South East Asian countries (Table 5). Out of these almost 50 per cent of neonatal deaths were preventable in the African region and 51 per cent of deaths could be averted in the South East Asian countries.

In the African region 77 per cent of deaths could have been avoided with proper infection control of the newborn. With proper tetanus immunisation of the mother and neonate, 76 per cent of deaths due to tetanus could have been averted in the African countries.

In the Caribbean region 30.3 per cent of total neonatal could have been avoided mostly by focusing on decreasing pre-term births. Developed countries of the Commonwealth had a similar case scenario

Table 8: Under-5 deaths saved by interventions

Interventions			Re	gion			Total	
	African Region	Caribbean	Developed		South East Asia	Western Pacific		
Exclusive breast feeding	N	88.60	0.09	0.02	60.37	y 0.36	149	
<6 months	% of total deaths	5.1%	3.9%	0.6%	6.3%	2.7%	5.5%	
Continued breastfeeding	Ν	22.92	0.04	0.01	17.65	o 0.17	41	
beyond 6 months	% of total deaths	1.3%	1.7%	0.1%	1.9%	1.3%	1.5%	
Complementary feeding	N	16.09	0.03	0.02	25.02	2 0.09	41	
promotion	% of total deaths	0.9%	1.4%	0.4%	2.6%	0.7%	1.5%	
through community education								
Vitamin A supplementation	Ν	40.68	0.01	0.00	47.93	3 0.09	89	
	% of total deaths	2.4%	0.4%	0.0%	5.0%	0.7%	3.3%	
Insecticide treated bed nets	N	315.78	0.00	0.00	5.66	0.04	321	
for Malaria Prophylaxis	% of total deaths	18.3%	0.2%	0.0%	0.6%	0.3%	11.9%	
EPI (excluding Hib)	N	45.61	0.00	0.00	29.61	0.11	75	
	% of total deaths	2.6%	0.0%	0.0%	3.1%	0.8%	2.8%	
Hib vaccine	N	16.17	0.01	0.00	10.33	8 0.08	27	
	% of total deaths	0.9%	0.2%	0.1%	1.1%	0.6%	1.0%	
Pneumococcal vaccine	N	105.13	0.05	0.01	106.7	8 0.47	212	
	% of total deaths	6.1%	1.9%	0.4%	11.2%	3.6%	7.9%	
Antimalarials	N	220.22	0.00	0.00	9.71	0.06	230	
	% of total deaths	12.8%	0.1%	0.0%	1.0%	0.5%	8.5%	
Zinc for diarrhoea	N	41.90	0.04	0.01	32.49	0.47	75	
treatment	% of total deaths	2.4%	1.5%	0.2%	3.4%	3.6%	2.8%	
ORS use	Ν	187.60	0.23	0.03	190.1	9 1.41	379	
	% of total deaths	10.9%	9.4%	0.8%	20.0%	ő 10.8%	14.1%	
Oral Antibiotics: for	Ν	295.24	0.17	0.10	216.0	8 1.84	513	
pneumonia	% of total deaths	17.1%	6.9%	2.6%	22.7%	i 14.1%	19.0%	
Promotion of WASH	Ν	58.28	0.02	0.00	58.4	2 0.35	117	
strategies	% of total deaths	3.4%	1.0%	0.1%	6.19	6 2.7%	4.3%	

We cannot cumulate total numbers of deaths ,and percentage averted from table 8 due to multiplicative effect of interventions. For total numbers of death averted use table 7 that provides 66.7% deaths saved by interventions

of neonatal deaths as with the Caribbean region; most neonatal deaths could have been avoided by preventing preterm labour and preventing neonatal infections.

In the South East Asian region infection was responsible for most neonatal deaths and avoiding infection could avert 80 per cent of deaths. This was also the case with the Western Pacific region.

Neonatal deaths saved by intervention

In the African states of the Commonwealth almost 13 per cent of deaths could be averted by injectable antibiotics to prevent neonatal sepsis, a further 10 per cent of deaths could have been averted each by neonatal resuscitation and by routine neonatal care and LBW infants care.

In the Caribbean region and developed countries of the Commonwealth 9 per cent and 6 per cent of neonatal deaths could be avoided respectively by providing better post natal care along with LBW infant care.

In South East Asia almost 18 per cent of neonatal deaths could have been averted by injectable antibiotics to prevent sepsis. In Western Pacific 10 per cent of newborns could have survived with better post natal care and a better coverage for care of LBW infants (Table 6).

Preventable under-5 deaths by region and cause

The total estimated composite under-5 deaths in the Commonwealth are 2,699,000 out of which almost 67 per cent are potentially preventable (Table 7). The African states of the Commonwealth had the maximum number of under-5 year old child deaths followed by the South East Asian countries. Of the total, nearly 70 per cent of child deaths were preventable in the African region and 61% per cent of deaths could be averted in the South and South East Asian countries.

In the African region 80 per cent of deaths could have been avoided due to malaria with proper malaria prevention and control in children, with proper pneumonia control 77 per cent of deaths due to pneumonia could have been averted in the African countries.

In the Caribbean region, South East Asia and Western Pacific, most under-5 deaths could have been avoided by preventing and treatment of pneumonia and diarrhoea.

Under-5 deaths saved by intervention

In the African states of the Commonwealth almost 18 per cent of deaths could be averted by scaling up the use of insecticide treated bed nets for Malaria Prophylaxis and a further 13 per cent of deaths could have been averted by appropriate use of anti-malarials such as artemisine combination therapy.

In the Caribbean region 9 per cent and 7 per cent of under-5 deaths could be avoided respectively by providing better oral rehydration therapy (ORS) coverage and zinc for the treatment of diarrhea and by timely provision of antibiotics for pneumonia.

In South East Asia region 20 per cent and 23 per cent of under-5 deaths could be avoided respectively by providing better ORS coverage for treatment of diarrhoea and by providing antibiotics for pneumonia.

In Western Pacific 14 per cent of under-5 children could have survived with better antibiotics coverage for respiratory tract infections (Table 8).

Recommendations based on our conclusions

There is a wide disparity in the rates of maternal, neonatal and maternal deaths throughout the Commonwealth. However, these countries account for over a quarter of all under-5 child deaths globally. Many of these deaths occur in poor countries with limited resources and poorly functional health systems. Our data indicate that increasing the coverage of a set of evidence based high quality interventions (level I and II) could save many of these lives provided such coverage levels could be sustained and reach the poor and maginalised sections of the population. It is important for the Commonwealth to set geographic priorities and specific targets. The health related Millennium Development Goals cannot be met at global levels without focusing more on the African and South Asian countries of the Commonwealth. Development efforts by the Commonwealth health governing bodies must target more on the nations with larger populations living below the poverty line.

The selection and sequencing of interventions matters greatly as investment is needed to address the social determinants of health and poverty associated problems. Given the critical contribution of undernutrition to maternal and child morbidity, maternal and child nutrition interventions should be a prime focus within the Commonwealth. Similarly, investments are needed to scale up interventions across the continuum of care from the pre-pregnancy period to pregnancy, near the time of birth and the immediate postnatal period.

It would be imperative to provide appropriate education in family planning, as rapid and unbridled population growth would negate any gains in health. Programmes which promote equitable access to health and reproductive services across population strata must be supported and include strong components for monitoring and evaluation. Investments also required for the management of childhood illnesses, family planning services and antenatal, childbirth and postnatal care. Given the importance of HIV and Malaria among the majority of child deaths in the African nations, concerted efforts are needed to scale up preventive and therapeutic measures against these killer diseases.

All of this will cost money and good governance. The current Countdown 2015 indicators represent the best available global status review for MNCH and survival and must be adopted as a bench marking tool.

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A decade of progress lies behind us – but we must continue building

Dr Klaus Kraemer, Director General, SIGHT AND LIFE

It is now ten years since the world leaders gathered at United Nations Headquarters in New York to adopt the United Nations Millennium Declaration. This committed countries to engage in new partnerships to reduce extreme poverty and set targets for 2015 that have become known as the Millennium Development Goals (MDGs). On paper they look good, and they have certainly resulted in action in some areas, but for the micronutrient community, some of the MDG targets appear flawed and progress has been slow.





Now as the Commonwealth Health Ministers gather in Geneva there is an unprecedented opportunity to reduce global undernutrition, particularly among the youngest and most vulnerable – children under the age of two. That is an opportunity that we cannot afford to ignore. Representing more than 2 billion of the world's population, and with many members experiencing acute problems with nutrition security, the Commonwealth has a key role to play in formulating and implementing in-country nutrition security policies and interventions, and shaping the international community's response to the challenge of nutrition security.

Behind the more obvious achievements of the past decade there still remains hidden from public view significant suffering. At the turn of the first decade of the 21st century one billion people remain hungry, 129 million are underweight. Moreover 195 million stunted children, and approximately 2 billion people, suffer from hidden hunger (vitamin and mineral deficiency). That is still a human tragedy on an unacceptable scale. What happened to the good intentions of that Millennium Goal congress in 2000 which sought to 'halve the proportion of people who suffer from hunger'?

Some progress has been made but the number of people affected by hidden hunger continues to be too high. This is partly because



governments, NGOs and aid agencies are too busy counting calories to see that there is an equally important hidden issue of micronutrient malnutrition. Much of the effort has gone into food security and not enough into nutrition security. And that is unacceptable for two reasons. Firstly because the damage caused by poor nutrition in the early years of a child's life can never be reversed – it is for life. But secondly because nutrition security, hidden hunger, is a problem that could be solved more quickly and more cost effectively than any other health initiative. For less than US\$3 per person per year, nutritional interventions could help people develop fully and become productive members of their society.

Micronutrient malnutrition has devastating effects and significantly contributes to the global burden of disease. Stunting, wasting, anemia, poor cognition, blindness, birth defects, infectious disease and premature death together with long-term productivity losses are all well documented. Vitamin and mineral deficiencies account for 7.3 per cent of the global burden of disease. Perhaps what is not as well known is the social and economic impact that hidden hunger has on emerging economies. A proportionately greater burden on the health care budget in these countries and nutritional deficiencies create a whole host of other medical conditions that need treatment. The workforce is less



economically productive and the social costs of caring for the long-term sick are an additional drag on the economy.

Hidden hunger and in particular vitamin A deficiency is a particular problem for young children and pregnant and lactating mothers. Yet this is an area where intervention can be most effective both socially and economically. Vitamin A deficiency is responsible for approximately 6 per cent of mortality and 5 per cent of DALYs (disability-adjusted life-years) in children under the age of five. Periodic high-dose vitamin A through supplementation has been up-scaled during the last decade and has become one of the most successful evidence-based public health interventions. Globally, vitamin A coverage with at least 2 high doses of vitamin A now reaches 71 per cent of all children aged 6-59 months



Box 1: Kakuma refugee camp in Kenya case study

People living in refugee camps largely rely on food assistance which typically consists of the provision of food staples. There are limited opportunities to earn money to buy additional nutrient-rich meat, fruit and vegetables or even to grow their own food. Consequently, there are few options to complement their diet and there is a high incidence of anaemia and micronutrient deficiencies in these camps, particularly amongst the most vulnerable; young children as well as pregnant and breast feeding women. In partnership with the World Food Programme and the UNHCR, DSM produced and donated micronutrient powder (MNP, MixMe[™]) for refugees. For a period of 12 months more than 50,000 refugees received their daily MixMe[™] sachet, that provided a range of essential vitamins and minerals, to supplement their staple diet. Since these MNP are food based rather than medicinal, they are more easily integrated into the refugees' lifestyles - they are simply added to the food before being eaten. Initial results from the project show an improvement in nutritional status. Many mothers in the refugee camp acknowledged an improvement in the health of their children, saying that they were looking healthier, were playing more and had an increased appetite.



and has protected the lives of millions of children in resource-poor countries.

Not all countries have successful vitamin A programmes, however, and greater effort and more interventions are required to reach the most vulnerable in the remotest areas of the world. Also other approaches such as staple food fortification and specially fortified (complementary) foods need to be up scaled to deliver important vitamin A and other vital micronutrients.

Until the financial crisis derailed one of the longest periods of economic prosperity in modern peace time, there had been tremendous changes in political freedom and economic growth. But against this background of apparent prosperity, the full extent of hidden hunger was often concealed. Now that the global recession has weakened economic growth, the situation for the 2 billion people suffering from hidden hunger is even more perilous and the need for urgent action is

more pressing.

The good news is that economists and, increasingly, ministers of economic affairs are beginning to recognise that micronutrient programmes (supplementation and fortification) are cost-effective interventions for improving health and ultimately productivity and are a pre-requisite to lift individuals, communities and consequently nations out of the poverty cycle. The 2008 Copenhagen Consensus, which included leading economists and five Nobel Laureates, set the task of prioritising solutions to ten of the world's biggest challenges. Applying a cost-benefit analysis, they ranked the provision of vitamin A and zinc supplements as the best investment and identified micronutrient fortification of staple food as the third-best investment.

The Copenhagen Consensus is one of the many advocacy initiatives that supports the critical issue of ensuring both food and nutrition security and many more have come into being following the publication of the *Lancet Series on Maternal and Child Undernutrition* in early 2008. More than ever, food and nutrition are gaining prominence on the global development agenda.

There has also been a paradigm shift during the past decade in the perception of the private sector and its role in fighting malnutrition (both under- and over-nutrition). The private sector is no longer seen only as the cause of the problem: more constructively, it is also now recognised as being an integral part of the solution. It is increasingly more engaged in the development and distribution of quality foods, micronutrient powders (MNPs) and specially fortified ready-to-use products. These all help fight micronutrient malnutrition and aim to reach those at the base of the pyramid. Public-private partnerships are now delivering real, tangible benefits for people around the world but particularly in Commonwealth countries.

Improving the diets of the world's poor is a complex and long-term undertaking that requires – at the very least – increased incomes, improved access to a variety of foods, and gender equality as well as better health, sanitation and nutrition service delivery. Nonetheless, in the short term, many lives can be saved and improved through a range of cost-effective and efficacious micronutrient interventions. In the end, best practice – requiring commitment, resources, funds and all groups within society to work together – will lead the way to achieving the MDGs that will help to deliver a better life for all, especially the poorest and most vulnerable. We enter the new decade with a good foundation, but we must not cease to build on it together. Many of the people who suffer from hidden hunger can no longer afford to wait until 2015. We have the resources and products to eradicate this pernicious epidemic. We also need the political will to see that the world's poor are offered a solution now, not in five years time. ◆

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ABOUT SIGHT AND LIFE

- SIGHT AND LIFE is the humanitarian initiative of DSM Nutritional Products.
- SIGHT AND LIFE is committed to fighting hidden hunger malnutrition caused by micronutrient deficiencies – a major cause of mortality and morbidity and which negatively affects human productivity and the economic growth of developing countries.
- SIGHT AND LIFE's vision is to ensure a sustainable and significant improvement in human nutrition, health and well-being for all the world's people, especially the poorest and most vulnerable.
- SIGHT AND LIFE champions the global fight against micronutrient deficiencies by espousing the belief that the right mix of funds, knowledge, policy and technology will lead to the prevention of micronutrient malnutrition.
- SIGHT AND LIFE supported 128 projects in 26 countries in 2009. Support included 63 vitamin A capsule donations; 7 research grants; 4 technical support grants; 12 training and education grants; 42 courses and congresses.

For more information on SIGHT AND LIFE visit www.sightandlife.org

Progress towards achieving the health MDGs in the Pacific Islands: highlights, initiatives and challenges

article by a team from the Public Health and Social Resources **Divisions of the Secretariat of the Pacific Community**

A review of progress in the Pacific Islands region towards achieving the three health-related Millennium Development Goals (to reduce child mortality, improve maternal health, and combat HIV, malaria and other diseases) shows that some of the Commonwealth member countries¹ in the region will reach a number of the targets. Overall, island nations have made advances in some areas, but as the prevalence, or number of cases, nears the MDG targets, rates of reduction have levelled out. There have also been reversals, notably in Papua New Guinea (PNG). This report records progress to date against each MDG, outlines the main challenges faced, initiatives to address them and highlights what is working well in the region.

Progress on each goal

MDG 4 – Reduce child mortality

Commonwealth countries in the region (Figure 1) have recorded major declines in under-5 mortality rates and now have rates of less than 30 per 1,000 live births - well below the average for developing countries of 80 deaths per 1,000 births.² However, no country in the Pacific has met the two-thirds reduction target and progress has slowed, in part because it becomes harder to reduce death rates as they get lower (Tables 1 and 2). Although Solomon Islands and Vanuatu started from poor levels of child health, if present trends continue they are likely to achieve this MDG target. Good progress was made during the 1990s in improving child health in Cook Islands, Fiji Islands, Kiribati, Samoa, Tonga and Tuvalu. But since 2000, child mortality rates in these countries have remained unchanged, or have deteriorated (in Fiji

2009 indicate that Niue, Samoa and Cook Islands may have reached their MDG 5 goals, while Solomon Islands may be on the way to reaching its target.⁵ The Wolrd Health Organization (WHO) reports that Kiribati and Vanuatu have recorded high MMR, although the absolute numbers of maternal deaths are relatively small.6

Reducing maternal and infant mortality requires that emergency and antenatal care is available to women. Except for Kiribati and PNG (52%), in most Pacific Island countries the proportion of births attended by skilled health workers is above 80 per cent. In PNG, an MMR of 733 maternal deaths per 100,000 live births was recorded for 2006, indicating the need for urgent action.7

MDG 6 - Combat HIV/AIDS, malaria and other diseases

More than 90 per cent of reported cases of HIV, including AIDS, in the

Islands, Kiribati and Tonga).³

MDG 5 - Improve maternal health

The targets are to reduce the maternal mortality ratio (MMR) by three quarters, and achieve universal access to reproductive health. Fiji and Samoa have low numbers of maternal deaths and significant improvement can be noted in MMR in several Pacific countries (e.g. no maternal deaths in Cook Islands and Niue since the 1990s). In 2009, it was reported that only Samoa, Solomon Islands and Tuvalu were on track to achieving this MDG.4 However, submissions to a New Zealand inquiry on maternal health in the Pacific in September

Pacific Island country 1990 Latest Latest year % Change % Average (in descending order of IMR) (1990-latest) annual change Papua New Guinea 82.0 57.0 2006* -3.3 -30.5 Kiribati 65.0 52.0 2005 -20.0 -1.5 Nauru 13.0 38.0 2007* 192.3 7.2 Tokelau 33.0 1997-00 _ 41.0 -24.4 Tuvalu 31.0 2007* -1.7 Vanuatu 45.0 25.0 2007** -44.4 -3.3 Solomon Islands+ 33.0 24.3 2007* -26.4 -1.9 33.0 20.4 2006 -38.2 -3.0 Samoa 23.0 19.0 2006 -17.4 -1.0 Tonga 16.8 9.5 0.8 Fiji islands 18.4 2007# 24.9 11.9 2001-05 -4.9 Cook Islands -52.2 Niue 16.0 7.8 2001-06 -51.3 -4.8

Sources: Pacific Islands Regional MDG Report, 2004 National Census and MDG reports

*DHS Survey ** MICS Survey

Key Statistics, Fiji Bureau of Statistics + CME Info estimate (1990)



Commonwealth countries of the region are in PNG, where in 2008 a cumulative rate of 437.4 per 100,000 of population was recorded - up 21 per cent in three years.8 The epidemic is believed to have infected up to 10 per cent of the population in parts of PNG.9 In 2008, 5,084 new cases were recorded in PNG, 31 in Fiji Islands, 3 in Samoa, 2 in Kiribati, Solomon Islands and Tonga, and 1 in Tuvalu (Figure 2).

identified as HIV positive, and who meet the internationally agreed criterion for treatment commencement, are receiving antiretroviral treatment (ART). Participating countries include Cook Islands, Kiribati, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. None were on treatment in Nauru, Niue and Tokelau. The regional procurement mechanism for ART for these countries is based in Fiji, although Fiji

The high incidence of other sexually transmitted infections (STIs) in the region indicates risk behaviours conducive to the spread of HIV, e.g. chlamydia prevalence in women attending antenatal clinics in Pacific Island countries is 18 per cent, which is among the highest in the world despite these women reporting very few risk behaviours.¹⁰ This situation calls for sustained education and prevention campaigns.

The target of universal access to treatment for AIDS is well on the way to being met in the Pacific. In Pacific Commonwealth countries receiving Global Fund financing, almost all those who have been

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Pacific Island country (in descending order of IMR)	1990	Latest	Latest year	% Change (1990–latest)	% Average annual change
Papua New Guinea	133.0	57.0	2006*	-57.1	-7.7
Kiribati	88.0	69.0	2005	-21.6	-1.6
Nauru	-	38.0	2007*	_	_
Solomon Islands (see note)	42.0	37.2	2007*	-11.4	-0.9
Tuvalu	59.0	36.0	2007*	-39.0	-3.1
Vanuatu	79.0	30.0	2007**	-62.0	-5.4
Cook Islands	31.2	26.1	2001	-16.3	-1.6
Samoa	42.0	24.7	2006	-41.2	-3.3
Fiji islands	27.8	22.4	2007#	-19.4	-1.8
Tonga	27.0	21.9	2006	-18.9	-1.3
Niue	-	19.0	2006	-	-

Source: Pacific Islands Regional MDG Report, 2004.

Source Facine Industry Ingeneration and Engeneration (Statistics) National Census and MDG reports. *DHS Survey ** MICS Survey # Key Statistics, Fiji Bureau of Statistics. Note: Solomon Islands 1990 figure is UNICEF CME estimate.



Figure 3: Incidence of malaria and associated deaths in Papua New Guinea, Solomon Islands and



Figure 4: Death from malaria



meets its own ART costs through its national budget.

Malaria occurs in three Pacific Island countries – PNG, Solomon Islands and Vanuatu. In spite of major reductions in its incidence in Solomon Islands and Vanuatu, malaria remains a leading cause of hospital admissions and infant mortality. The same is true in PNG.¹¹ However, between 1990 and 2008, the overall incidence decreased by 39 per cent in PNG, and 82 per cent in Solomon Islands and Vanuatu. On average, the rate shows an annual decline of 3 per cent in PNG and 11 per cent in Solomon Islands and Vanuatu (Figure 3).

Good progress has been made on tuberculosis (TB) and the region is on track to at least halve its prevalence by 2015. However, the mortality target may be narrowly missed unless the current rate of decline accelerates.¹² There is a relatively high incidence of TB among people living in crowded settlements in some island countries, and drug-resistant strains have been identified in PNG, Kiribati and Samoa.¹³ Of the Commonwealth countries in the region, in 2007 Kiribati had the highest TB burden (340 per 100,000 of population), followed by PNG (237), Tuvalu (166) and Solomon Islands (80).¹⁴

With obesity rates in the Pacific among the highest in the world, it is no surprise that non-communicable diseases (NCDs) are the leading cause of mortality in the region, accounting for three out of every four deaths.¹⁵ Trends are difficult to monitor because information has not been available on a consistent basis from 1990, but indications are that NCD prevalence is increasing rapidly.¹⁶ Cardiovascular disease accounts for most NCD-related deaths in the Pacific, followed by cancer. High levels of type 2 diabetes are occurring in Nauru, Kiribati, Fiji and Tuvalu. Treatment of NCDs is typically expensive and protracted, and in future will put severe strain on the health resources and budgets of Pacific Island countries.

Challenges, initiatives and highlights

Collecting useful data is the first challenge for the region in monitoring and reporting progress on the MDGs. Although the region now has better information than in 1990, overall assessment of progress is constrained by the lack of functioning databases in some countries.¹⁷ In part, these difficulties reflect that most economies are stagnating or declining, dependent as some are on overseas development assistance and remittances.

Health systems and human resources are other serious problems for the region. Systems are typically weak and understaffed. In particular, there are too few adequately qualified health staff and managers due to high levels of emigration. As a result, services are not universally available and countries have low ability to absorb development initiatives. Attempts to remedy critical shortcomings in the region's health workforce are being made through the Pacific Human Resources for Health Alliance, which, among other initiatives, has compiled core health workforce data and is promoting exchange of information and sharing of expertise between Pacific countries.

Systemic weaknesses impact on countries' ability to reach MDG targets. For example, reducing maternal and infant mortality requires good access to emergency and antenatal

care, especially in remote areas. Education is also important, as demonstrated in the increased likelihood of medically assisted delivery among more educated women. However, most maternal deaths in Polynesian and Micronesian countries occur in hospitals and health clinics¹⁸, indicating that patient monitoring and emergency services need strengthening. MMR has increased in Fiji, Kiribati and Tonga, raising concerns over the quality of service delivery. Fiji's public health system has a severe shortage of senior medical officers and specialists due to budget cuts and emigration of doctors.¹⁹ Increasingly, women's groups

are taking ownership of local problems, e.g. in Samoa they contribute to healthcare delivery and promote reproductive health and rights.²⁰ Other initiatives addressing sexual and reproductive health needs in the region include the use of family health cards in Solomon Islands, vasectomy programmes in Solomon Islands and PNG, adolescent friendly services provided by UNFPA, UNICEF and SPC's Adolescent Health and Development Programme, midwifery training, and World Vision's training of village health volunteers in PNG.

Some diseases, such as HIV, have attracted high levels of political attention and matching resources, as have outbreaks of diseases such as multi-drug resistant TB and H1N1. In contrast, leading priorities for countries, notably NCDs and child health, have until recently attracted only minimal funding.²¹

National malaria programmes receive significant external funding to support comprehensive prevention, treatment and control. Results reported at the end of 2009 indicate that both Solomon Islands and Vanuatu have reached the position where, in one province each, they are able to consider moving from a programme dominated by the malaria control phase to one of pilot elimination. This success is due to collaboration between several partners under the leadership of the national vector-borne disease programmes. The partners include SPC (as the funding channel through which Global Fund grant resources are contributed), WHO (posting of in-country malaria officers), Rotary Against Malaria, and the Australian Agency for International Development (AusAID). Sustaining these achievements and moving more provinces to a pre-elimination phase is now the overriding goal of both programmes.

The major challenge for TB control in the region is the emergence of multi-drug resistant TB. Other challenges again include weak health systems, depleted health workforces, and difficulties in communication and transportation between remote islands. SPC and WHO have a regional 'Stop TB' strategy in place in the Western Pacific (for 2006–2010, then 2011–2015). These strategies have been developed within the context of the Global Plan to Stop TB 2006–2015 (approved by the World Health Assembly) and in line with MDG targets. Examples of good practice include identification and management of cases through Ministries of Health, the use of home-delivered DOTS (directly observed treatment, short-course) for TB control, and free and equitable access to treatment.

Health financing in the region relies heavily on donor funding, but this funding is often for specific diseases or projects and is not well aligned with national health priorities, despite development partners' endorsement of the Paris Declaration on Aid Effectiveness and Accra Agenda for Action.

Ideally, additional health resources should result in improved overall capacity in recipient countries. However, such funding can also distort the delivery of basic services and allocation of skilled human resources in small countries that already have chronic shortages of health staff.

Coordination and harmonisation of development assistance is therefore very important if health programmes are to have any chance of sustainable success. Recent initiatives from the region, such as the WHO-CDC-SPC joint 'Stop TB' strategy, the Pacific Regional HIV & STI strategy, and the Pacific Public Health Surveillance Network, illustrate the kind of success that partnership and convergence of efforts can achieve.

Emerging issues

Changing social and economic conditions, including the increasing

impacts on island societies of climate change,²² food insecurity, population growth and unplanned urbanisation, are major factors affecting achievement of the health MDGs in the Pacific. The recent international economic downturn has also had a cascading effect on health outcomes, particularly among poor and vulnerable groups.²³ Unemployment and falling household income can lead to children, especially girls, being taken out of school. Efforts to obtain income may lead to risky behaviours such as unsafe sex, with particular hazards for women, children and young people. And as seen during previous economic crises, there is potential for increased family violence, abuse of alcohol and other drugs, and a rise in mental health problems.

Youth make up a rapidly growing proportion of the Pacific population - 20 per cent are aged between 15 and 24 years and this proportion is increasing by 2.2 per cent a year. Pressure on education facilities and few opportunities leave many young people in the region with limited life skills and choices, which in turn can undermine self esteem and lead to anti-social and risky behaviours with adverse impacts on sexual and mental health and higher likelihood of substance abuse.²⁴ Teenage pregnancy and early marriage affect the health of young women and potentially the health of their children. The high prevalence of STIs among youth highlights the increasing threat of HIV²⁵ and the need for vigilance and education. To address these needs, SPC and UNFPA's Adolescent Health Development Programme provides awareness training for school and community groups, training of trainers, drop-in centres and health clinics focusing on sexual and reproductive health in Cook Islands, Fiji Islands, Kiribati, Samoa, Solomon Islands, Tonga and Tuvalu.

Cross-sectoral initiatives to address determinants of health

It is obvious that many of the determinants of the health of Pacific people lie outside the health sector itself. High illiteracy amongst parents, especially mothers, has been directly linked to infant and child morbidity and mortality. Unemployment and poverty, unplanned and crowded urban settlements on some islands, poor sanitation and insecure land tenure have cumulative effects on health. Road, maritime and workplace accidents rank third as causes of mortality in the region.

Participation of women in government is low and gender issues are not well mainstreamed across government sectors. Many women in the Pacific Islands region do not have control over their own healthcare decisions, a situation that is amplified by domestic violence.²⁶ While this is a societal issue, SPC is working with its members to help put in place policies and programmes that support empowerment of women and their equal participation at all levels.

Picking up on these challenges, the 2009 Pacific Health Ministers' meeting at Madang in PNG reaffirmed commitments to 'whole-of-society' and 'whole-of-government' approaches to health.²⁷ SPC's Public Health Division is working with other SPC programmes to meet the needs of member countries, as prioritised in their joint country strategies (five-year work plans developed between countries and SPC). This cross-sectoral initiative has already helped draw the attention of governments to the increasing burden posed by NCDs. The Madang meeting endorsed calls by Pacific Islands Forum leaders for a Pacific food summit and national and regional action on food security. SPC and WHO are working with countries, through the 2-1-22 programme²⁸ funded by Australia and New Zealand, to address the main risk factors for NCDs – smoking, excessive alcohol, poor diet and lack of physical activity. The production and consumption of fresh local foods are being

promoted by an SPC pilot project funded by the European Union – Facilitating Agricultural Commodity Trade. SPC's Community Education and Training Centre is providing training on nutrition and food preservation and safety to women's groups in Pacific countries, and SPC's Centre for Pacific Crops and Trees (CePaCT) is playing a major role in the conservation, propagation and distribution of diverse local food crops including banana, taro and breadfruit varieties with specific nutritional advantages.

Improved transport and communications services are also likely to have major benefits for the welfare and general health of Pacific Islanders, particularly people living in small island states. SPC is providing technical assistance to improve the frequency and safety of shipping services in the region, and is also working with partners to make internet access available to remote communities through low cost satellite Internet connectivity and the One Laptop Per Child project. Access to information communications technology is opening up opportunities that were previously out of reach for these communities.

Conclusion

In the Pacific region, there is growing recognition that to achieve the health MDGs, national ownership and whole of government approaches are essential to increase the scope, effectiveness and sustainability of interventions, and at the same time address other MDG targets such as reducing poverty and gender inequality. Such approaches require higher investment in education and health, measures to ensure women can freely enjoy their rights, attention to the needs of children, youth and elders, support for adaptation to changing social and physical environments, and better services for remote communities. In particular, in recent years there has been increasing political support in some Pacific Island countries for greater alignment of NCD issues with the MDGs. This will encourage a broader perspective on health and its determinants that takes into account the major causes of death and morbidity in the region, particularly among poor and marginalised social groups. ◆

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Chapter 2

Improving maternal health: progress towards MDG 5 in Commonwealth countries

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The goal of reducing maternal mortality (MDG 5) can be met if resources are focused urgently on where they will make the biggest difference: ensuring all women deliver with a skilled health professional. Such skilled care will be most cost-effective when provided in functioning health facilities, and must reach the poorest women. We look at Commonwealth country indicators and make the case for this strategy, highlighting the importance of addressing financial and human resource barriers and of robust monitoring and evaluation of inputs, outputs, outcomes and health impacts. Failing to achieve MDG 5 will be discreditable – for both rich and poor countries.

MDG 5: What was agreed and why?

All Commonwealth countries signed up to the Fifth Millennium Development Goal (MDG 5), to 'Improve maternal health'. The disparity in the risk of the maternal death between rich and poor countries is stark: 1 in 8 women in Sierra Leone die of these causes compared to 1 in 8,300 in Malta¹. Moreover, maternal deaths are only the tip of the iceberg of suffering related to difficult pregnancies. Maternal ill health is the largest contributor to the burden of disease among women of reproductive age, and when maternal and perinatal conditions are combined, the burden is larger than for HIV/AIDS, malaria, or tuberculosis (Figure 1). When mothers die or incur debilitating complications, their children's survival and well-being is compromised, their family may disintegrate, and their households, communities and



society sustain negative economic consequences.

Progress towards MDG 5 was initially to be measured against two main indicators: a three-quarters reduction in the maternal mortality ratio (the number of maternal deaths per 100,000 live births) and universal coverage of births attended by skilled health personnel (namely delivery by midwives, nurses or doctors) by 2015. In 2008, a further target (MDG 5b) was added, namely to achieve 'Universal access to reproductive health' by 2015, measured against four indicators (Box 1).

Are the MDG 5a targets being met? Maternal mortality is still too high but skilled health professional attendance at birth is improving

International Commitment to MDG 5 has increased and there has been some progress toward improving maternal health; however, maternal mortality in Commonwealth countries, as in the rest of the world, appears to be declining too slowly to meet MDG 5a. Fifty-two per cent of the 536,000 maternal deaths worldwide in 2005 (over 265,000) took place in Commonwealth countries although their populations account for only 30 per cent of the world's population. Based on the most recent 2005 UN estimates, the maternal mortality ratio (MMR) for all Commonwealth countries was 542 maternal deaths per 100,000

Box 1: MDG 5 Targets³

Target 5a: Reduce by three quarters the maternal mortality ratio

- 5.1 Maternal mortality ratio.
- 5.2 Proportion of births attended by skilled health personnel.

Target 5b: Achieve, by 2015, universal access to reproductive health

- 5.3 Contraceptive prevalence rate.
- 5.4 Adolescent birth rate.
- 5.5 Antenatal care coverage (percent with 1+ and 4+ antenatal visits).
- 5.6 Unmet need for family planning.


The United Nations Millennium Development Goal 5 calls for a reduction in the maternal mortality ratio by three quarters and universal access to reproductive health by 2015.

There's an immense amount of work to be done in order to achieve this. However, we have never felt more positive that our innovations, partnerships and focus on serving the underserved with quality family planning and other sexual and reproductive health services can make an unprecedented difference.

Every $\pounds 1$ invested with us saves $\pounds 18$ in healthcare costs borne by individuals, health facilities and governments in developing countries. Our work last year will save them $\pounds 855$ million. To find out more about our work go to:

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live births (compared to 4,024 globally), ranging from 4 to 2,100 per 100,000 live births. Figure 2a shows the 2005 UN estimates for MMRs¹ and Figure 2b shows the most recent reported MMRs for countries excluded from UN estimates because their populations were less than 250,0005. No MMRs were reported to the UN for two countries. Twelve Commonwealth countries had MMRs over 500 per 100,000 live births, of which 11 were in sub-Saharan Africa. Among the lowest MMRs for Commonwealth countries are 4 per 100,000 live births in Australia and 7 per 100,000 live births in Canada (Figure 2a), although a number of countries report having no maternal deaths primarily as a reflection of their small population size and therefore the small number of births per year (Figure 2b). The Commonwealth Secretariat prioritises 12 Commonwealth countries with the highest burden of maternal and child health-related mortality and morbidity. Throughout this paper, figures for these countries are shown in orange: Kenya, Mozambique, Malawi, Nigeria, Tanzania, Uganda, Zambia, Bangladesh, Cameroon, Lesotho, Sierra Leone and India.

Because the UN used different models to estimate maternal deaths in 1990 and 2005, MMRs from these two periods are not comparable. However, it is correct to say that in 1990, maternal deaths in Commonwealth countries comprised 52 per cent of maternal deaths worldwide and this figure was 52 per cent again in 2005, suggesting that in relative terms the Commonwealth countries did not perform better in 2005 than in 1990. During this time, the worldwide maternal mortality ratio fell by only 5.4 per cent and the number of maternal deaths decreased by 7 per cent⁴.

Universal access to skilled health professional delivery, the second indicator, is a barometer measure for MDG 5 and key to achieving equity in maternal health. We see that this increased from 36 per cent of the births in Commonwealth countries in 1990 to 46 per cent in 2005, an increase of 28 per cent. Data for individual Commonwealth countries are shown in Figure 3. Many countries

Figure 2b: Maternal Mortality Ratio (maternal deaths per 100,000 live births), 2005 estimates (green), for countries without a 1990 estimate, and most recent Maternal Mortality Ratio (2000-2007 reports)⁵ (blue) for those excluded from UN estimates.





increased coverage considerably, although others appear not to have kept up with population growth. Twelve countries have less than 50 per cent coverage in the most recent period. The percent of deliveries covered by health professionals in developing regions worldwide has improved from 53 per cent in 1990 to 61 per cent in 2007⁷. This is a 15 per cent increase, indicating that Commonwealth countries have improved this indicator more rapidly (in both relative and absolute terms) than the rest of the world. Looking by wealth quintile, this indicator nevertheless shows large disparities which must be overcome. Moreover, coverage must be tracked and evaluated alongside markers of the quality of the care received for mothers and babies, as it is somewhat surprising that the increases in skilled health professional attendance have not yielded bigger gains in maternal mortality.

Maternal deaths are preventable: we know what to do to but are just not doing it

The figures above indicate the scope of the problem and show the dramatic variation in maternal mortality and health professional delivery between low, middle and high-income countries. So why are women still dying during pregnancy and childbirth?

The *Lancet* Series on Maternal Survival⁹ argued that strategies to reduce pregnancy-related deaths could be among the most successful efforts to target a specific cause of death. Having agreed that saving women's lives is essential, only a few key strategic decisions need to be made. These choices are now being encouraged by the shift by donors to results-based financing, with maternal mortality reduction widely regarded as a 'prized' result. The priority is to support ministries

of health and other key government decision-makers to make a real difference to the lives of women and babies through focused, effective intervention strategies. We identify where the Commonwealth states stand with respect to implementing these key strategies and highlight lessons to be learnt.

Women a at particular risk during delivery: this is the crucial time for effective care. The risk of maternal death is highest during labour, delivery and the first 24 hours after delivery (the intrapartum period). Where women are when they deliver, who is attending them, and how quickly women can be transported to referral-level care, determine the interventions that are needed and feasible.

There are efficacious drugs or procedures for preventing or treating virtually all life-threatening maternal complications, and their costs are affordable. Strategies aim to bring together packages of interventions and direct these to the target populations of women who need them. A 'best bet' strategy is one that includes an effective package of interventions, a service delivery platform that can achieve high coverage of the intended target group, and is acceptable to populations and governments and thus likely to be sustained.

We must target all deliveries – both normal and complicated. Current evidence shows that the 'best' intrapartum care strategy enables women to routinely deliver in a health centre, private clinic or maternity home, with midwives as the principal providers but with other attendants also working with them in a team⁹. Such health centre-based care can cater to normal births but also includes basic emergency obstetric care for managing complications (BEmOC). More advanced treatments, such as blood transfusions or caesarean sections



(Comprehensive Emergency Obstetric Care or CEmOC) must be readily available at the referral level (District Hospital). Two recent costeffectiveness analyses found health centre-based care to be among the most cost-effective options, with clear benefits to both mother and baby. Ensuring such facilities are close enough for women to deliver in should also mean women are close enough to seek care if complications arise before or after delivery.

Many Commonwealth countries, especially those with low levels of maternal mortality, already meet the goal of universal coverage (Figure 3). Most have achieved this complete coverage by institutionalising births. For those who have not, scaling-up deliveries with health professionals in facilities, while simultaneously ensuring access to referral level care, presents a huge challenge, requiring a 24-hour service, which is often not currently available. Furthermore, reviews of the preparedness of various tiers of the health system, show that health centres are the level which most often fails to meet service and quality requirements, and thus urgently requires further investment¹⁰.

Delivery care is the priority, but other complementary strategies must also be in place. Three complementary strategies can reduce the risks of maternal death outside of the intrapartum period – antenatal care, family planning and abortion services. Antenatal care benefits neonatal survival and maternal health, but its potential to impact significantly on maternal mortality is limited. In some countries, investment in antenatal services needs to be balanced against the requirement to expand delivery care, and should focus on providing only those interventions that are effective, such as antimalarial prophylaxis. A woman who is neither pregnant nor recently delivered cannot die of maternal causes. Avoiding unwanted pregnancy through family planning services is thus an extremely effective form of primary prevention of maternal deaths.

Finally, unsafe abortion is a major cause of maternal mortality in some countries, yet when conducted in a safe environment, induced abortion is less risky than childbirth. Were it not for legal, political and cultural constraints, medical abortions could potentially be available at a household level and attain high coverage, thereby averting a substantial proportion of maternal deaths.

What can other indicators tell us about progress toward improving maternal health?

A framework. The maternal mortality ratio measures the risk associated with each pregnancy and reflects a culmination of risks and mitigating factors that play into whether a woman dies during or survives childbirth. Used alone the MMR is limited as an indicator because it only captures the final result of a series of inputs and processes, and it is complicated by measurement challenges. Monitoring and interpreting progress against MDG 5 requires tracking other related indicators.

Figure 4 presents a framework for tracking progress and identifying gaps in available information. The first row lays out indicator¹³ terminology; the second gives generic examples of each type of indicator and the third gives examples specific to maternal health. Unfortunately, whereas most countries have national estimates for the health impact indicators (such as maternal and neonatal mortality) and some outcome indicators (particularly maternal-health specific financing, strategy or policy) and output indicators (such as Emergency Obstetric Care provision (EmOC) or staffing) are harder to come by.

Input Indicators for Commonwealth countries. Resources for building an effective health system include strategies and plans, financial resources, materials, and policies. One input indicator seeks to assess whether countries have costed implementation plans for maternal, neonatal and child health. Data from Countdown to 2015 (Box 2) show

Box 2: Costed implementation plans for maternal, newborn and child health available. 2008 ^{14.} (Priority countries in blue.)				
Yes	Cameroon, Gambia, India, Lesotho, Nigeria,			
	Pakistan, Rwanda, Swaziland, Tanzania			
Partial	Bangladesh, Ghana, Kenya, Malawi, Mozambique,			
	Sierra Leone, Uganda, Zambia			
No	Papua New Guinea			



not available is essential.

Other input indicators relate to the financial resources available. There are various global prices tags scaling-up maternal and for newborn services to achieve universal coverage. Although these vary according to model assumptions, the additional budget needed from governments and donors globally is in the range of US\$5.1 to US\$6.1 billion by 2015. But the potential gains from scaling-up are enormous: maternal deaths could be halved by 2015, at an extra cost to country health budgets of US\$0.22 to US\$1.18 per capita¹⁵. In many low-income countries, households continue to pay a disproportionate share of the costs for accessing government maternity services, particularly for emergencies. For the poorest families these costs can be catastrophic.

Figure 5 shows spending per capita on health, both as a per cent and as an absolute dollar amount.

eight have partial plans. Tabulating such data for other Commonwealth countries and developing such plans where they are

spend on health, some also spend very small per cent of their GDP and

The poorest countries need help and as a result are highly dependent on external assistance. Figure 6 presents data on Official Development Assistance to maternal and neonatal health per live birth, and shows considerable disparities, even among priority Commonwealth countries.

Appropriate policies can also have а major impact on maternal health by improving access to effective services. Key areas include policies around financing and payment for key services, policies around rapid expansion of the health workforce (delegation of responsibility and task shifting), and policies on abortion. Input indicators based on policies could be useful in assessing



nine of the 18 Commonwealth countries have such plans, while

While low-income countries in general have very few resources to should consider increasing this as a matter of priority.



a country's commitment toward improving maternal health.

User fee policies. There is now strong evidence to support removing user fees for delivery care to ensure women are not hindered from accessing delivery services for financial reasons. For such initiatives to succeed, governments must replenish the income lost from the removal of user fees, address the supply side barriers, especially related to staff and quality of care, implement effective mechanisms to ensure increased demand from the poorest women, such as cash transfers or vouchers, and transport subsidies. Box 3 lists countries known to provide free delivery care – but Lesotho and Zambia have not yet shown increases in coverage (Figure 3). Box 4 gives more details on two countries efforts, India and Ghana, and Box 5 shows the Commonwealth compact commitment to ensure access to care.

Policies on health providers. Another immense challenge facing poor countries is adequate provision and deployment of skilled providers. There are massive human resource constraints in many countries, especially in rural areas. A key policy to monitor is whether mid-level providers, such as midwives, can deliver life-saving care, to get maximal benefit from deliveries by health professionals. Data were found on policies for 18 Commonwealth countries, of which 11 authorised midwives to administer live-saving interventions (Box 6).

There is little evidence that countries with insufficient numbers of health workers have developed large-scale programmes to train and deploy delivery-care providers, but some have policies that innovate in developing new cadres (Box 7). In other settings, some constraints can be addressed by staffing combinations whereby, for example, midwives work together with staff with fewer competencies.

Abortion policies. Globally, between 4 and 12 per cent of maternal

deaths are due to unsafe induced abortion, deaths that can be prevented through access to family planning and safe induced abortion²². Abortion policies of Commonwealth countries²³ are shown in

Box 3: Sub-saharan countries providing free maternity care $^{\rm 16.17}.$ (Priority countries in blue.)

Ghana, Kenya, Lesotho, South Africa, Uganda, Zambia

Box 4: Cash incentives and access to free care: India and Ghana

Starting in 2006, India's National Rural Health Mission encouraged the use of the appropriate maternity care in rural areas where the institutional delivery rates were low by giving cash incentives for institutional delivery, with separate provision for emergency transport and caesarean delivery if needed. The accredited social health activist is a key link worker connecting women in need of obstetric services with an accredited centre offering appropriate services. For states with less than 50 per cent coverage in 1998/9, surveys in 2007/8 showed dramatic increases in institutional delivery (absolute increases of 8-26% and relative increases of 26-119%)¹⁸.

Since 2003, Ghana has innovated to ensure cost is not a barrier to services. In 2010, the Government will shift from annual premiums for its national health insurance to a single lifetime payment, with exemptions for pregnant women to ensure free healthcare and replacing existing patchy free provisions. It is estimated that by 2012, nearly one million pregnant women and 12 million children in Ghana will be accessing free healthcare³.

Box 5: Commonwealth Heath Compact

At the Commonwealth Heads of Government Meeting in November 2009, a Commonwealth Health Compact was agreed. Governments agreed to invest in free health services to ensure that the poorest people, especially women and children, can access trained health workers with the right skills, in the right place, at the right time, and with the right infrastructure, equipment and drugs. Recognising the huge diversity in health needs across the Commonwealth, they: called on donor countries to deliver existing commitments for financing in health and identify ways to increase international resources; welcomed steps by low-income countries towards universal access to health services, and making them free at the point of use and urged further concerted action, and agreed to support civil society to advocate for, support and contribute to universal coverage of basic healthcare²⁰.

Box 6: Midwives authorised to administer a core set of life-saving interventions¹⁴. (Priority countries in blue.)

- Yes Bangladesh, Cameroon, Gambia, Ghana, Kenya, Malawi, Mozambique, Nigeria, Rwanda, Swaziland, Tanzania
- Partial India, Lesotho, Pakistan, Papua New Guinea, Sierra Leone, Uganda, Zambia

Box 7: Expanding the role of mid-level providers²¹

Twenty-five of 47 countries in sub-Saharan Africa, many of which are Commonwealth countries, have healthcare providers who are not trained as physicians but who take on many of their diagnostic and clinical functions. Nonphysician clinicians (NPCs) equalled or exceeded numbers of physicians in nine countries. They were generally trained with less cost and for only 3-4 years after secondary school. Some conduct specialty activities such as caesarean section and anaesthesia. Many NPCs were recruited from rural and poor areas, and worked in these same regions. The Power and Potential of Mid-level Providers project aims is to support health system strengthening for equity in Africa by building an evidence base on the role of mid-level providers in maternal and newborn health and promoting greater political leadership and critical policy action on their use. The Commonwealth Secretariat has worked with partners to develop a curriculum for an advanced Midwifery degree, with students enrolled in the University in Malawi.

Box 8: Abortion policies

	Developed regions	Latin America and Caribbean	Asia and Oceania	Africa
Permitted without restriction as to reason	Australia, Canada	Guyana	Singapore	South Africa
Permitted for economic or social reasons and to save the woman's life, physical health or mental health +/- rape/incest or foetal impairment	United Kingdom (excluding Northern Ireland)	Barbados, Belize, St Vincent & Grenadines	Fiji, India	Zambia
Permitted to save the woman's life, physical health or mental health <u>+</u> rape/incest or foetal impairment	New Zealand	Bahamas, Grenada, Jamaica, St Kitts & Nevis, St Lucia, Trinidad & Tobago	Cyprus, Malaysia, Nauru, Papua New Guinea, Pakistan, Samoa	Botswana, Cameroon Gambia, Ghana, Kenya, Mozambique, Namibia, Nigeria, Seychelles, Sierra Leone, Swaziland, Tanzania
Permitted to save the woman's life or physical health		····go	Maldives	
Prohibited or permitted to save a woman's life	Malta	Antigua & Barbuda, Dominica	Bangladesh, Brunei Darussalam, Kiribati, Solomon Islands, Sri Lanka,Tonga, Tuvalu	Lesotho, Malawi, Mauritius



Box 8. Twelve countries have relatively unrestricted policies, and Bangladesh allows menstrual regulation²⁴ without restriction. Since 1997, the grounds for legally performing abortion were broadened in three Commonwealth countries: Saint Lucia, Swaziland, and one

territory and three states in Australia (Capital Territory, Victoria, Tasmania and Western Australia).

Outputs indicators for Commonwealth countries

Health professional availability. Countries do not report to UN agencies on the numbers of health professionals involved in delivery care, but Figure 6 shows the health personnel (per 10,000 population) in Commonwealth countries. The benchmark of 23 is the minimum needed to reach 80 per cent of the population with skilled care at birth and child immunisation coverage (WHO). While many countries exceed this level, some, particular the priority countries shown in orange, fall well below, explaining in part the difficulties they face in achieving universal coverage of skilled attendants at delivery. This major bottleneck needs to be addressed.

Emergency obstetric care. Nine countries shown in Figure 8 (of which eight are Commonwealth priority countries, in orange), have Countdown to 2015 data on the availability of emergency obstetric care. The UN benchmark is a minimum of five facilities per 500,000 population and 20,000 births, while the *World Health Report* recommends 11.1 for an equal number of births^{25,26}. All nine countries have fewer than five facilities, suggesting services are inadequate to meeting the needs of women experiencing obstetric complications.

Outcome indicators: what is coverage of key maternity care services like?

If we look at outcome indicators, we see that in 2005, skilled personnel (Figure 3) attended 46 per cent of births in Commonwealth countries. Another indicator of the coverage of services is coverage of antenatal care (shown in Figure 9). Coverage of antenatal care is better than for





skilled birth attendance, with no countries having less than 50 per cent coverage for women having at least one antenatal care visit, although, fewer women have the recommended minimum of four visits.

Figure 10 shows data on the caesarean section rate. It is suggested that rates between 5 per cent and 15 per cent are ideal²⁷. Rates for all the priority countries except India fall below this level, suggesting insufficient access to this potentially life-saving intervention.

What about other related health impact indicators?

The health of the mother and her baby are intimately linked. Poor health of the mother or a lack of high quality care available to her during pregnancy and childbirth lead to stillbirth or early neonatal mortality. Stillbirths are not included in the MDGs. Rather they are outcomes surrounded by silence and often seen as non-events which women are expected to 'get over' as soon as possible (Box 9). Figure 11 shows the



Box 9: Giving voice to women: South Africa – the Invisible Earthquake of stillbirth²⁹

Invisible Earthquake by Malika Ndlovu explores the grief of a South African woman for the loss of her third child, who was stillborn. '...there is little physical evidence that our daughter ever existed. Yet the entire landscape of all our lives has fundamentally changed. Nothing can be as it was before. Time has relentlessly brought on this change and I am still taken by surprise some days, when I realise how much time has passed since that turning point, how I have ached and cried less and less, how I have found and developed ways to live with what I thought I couldn't and didn't want to bear in the beginning.



stillbirth rates per 1,000 births in Commonwealth countries, with the 12 priority countries highlighted in orange. It is notable that these countries also have the highest maternal and neonatal mortality rates as well.

Figure 12 presents infant and neonatal mortality data for the Commonwealth countries. It shows large differences between countries with the highest and lowest infant mortality levels. It also shows the proportion of infant deaths in the neonatal period increase as mortality decreases. This increases the relative important of neonatal mortality, again highlighting the role and importance of high quality antenatal and delivery care.

Demonstrating progress is crucial for all strategies: what you count is what you do

Monitoring key indicators is essential to planning programmes, determining inputs, redressing deficiencies and assessing outcomes. Our graphs illustrate the status of Commonwealth countries with respect to key indicators, and show that many countries have no data (this is also summarised for key indicators in Figure 13). For example, in international databases, Grenada and Tuavalu have no estimates of maternal mortality; the United Kingdom, Canada and Malta lack data on antenatal care; Cyprus and Brunei lack data on contraceptive prevalence; and the Seychelles have no data on the proportion of deliveries with health professionals.

Investment is needed in routine information systems and all opportunities seized for measuring maternal mortality, such as the 2010 round of Decennial Censuses. Among the Commonwealth states, there are many examples of good practice in information gathering. For example, India has long had a sample vital registration scheme that is used to provide vital statistics, and has recently been used to provide estimates of maternal mortality. Jamaica has a series of high-quality

Box 10: Giving voice to women: Sierra Leone³⁴

'Maybe I will die'

A pregnant 16-year-old, the third wife of an older man, talking about her forthcoming childbirth.

studies of the levels and cause of maternal mortality, which have informed their national programmes. The UK Confidential Enquiry into Maternal Deaths has over 50 years of experience investigating quality of care through in-depth reviews, and has served as a model for similar processes in other countries, such as South Africa and Malaysia.

Conclusion

Governments have the unenviable role of balancing priorities and budgets across sectors, so needing to take a multi-sectoral perspective to development. Maternal mortality reduction is much more than a medical issue, and depends in the long-term on progress in other sectors, such as transport or education. At the same time, delivering improved maternal health through the health sector has benefits for other health conditions and for wider development – reducing inequities and promoting women's rights.

The time has come to focus resources where they will make the biggest difference to the lives of women, babies, families and societies. Intrapartum care represents the greatest opportunity to achieve this impact. Universal access to effective delivery care must be achieved using strategies that also maintain women's choices and dignity. This should be the right of all women. None of us would want our daughters or sisters to deliver without someone who can manage complications and help ensure a healthy outcome for mother and baby. When

Figure 13: MDGs indicators that are not repeated to UN tracking systems

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countries are held to account for progress on MDG 5, and as outputbased financing becomes the main mechanism for receiving external assistance, all ministers will wish and need to show that care at the time of delivery is safe and appropriate, particularly for the poor. The burden of mortality is highest amongst the poorest women, yet their access to care is weakest. MDG 5 cannot be met without addressing this fundamental inequity.

These statistics shown above hide the complexity of the vast range of determinants and contexts in different countries, regions, districts, cities and villages. The focus on targets and indicators also substantially masks the fears of millions of individual women who give life in fear of death (Box 10).

There is a pressing need for 'vision' to reassure the young woman in Sierra Leone that she need not die in childbirth. In signing-up for MDG 5, countries have indicated their aspiration. The aspiration is meaningless unless it is translated into a clear strategy for achieving this. The Commonwealth countries cover the whole spectrum of challenges and strategies seen globally. There are many examples of good practices and innovations within this community, and unique opportunities to learn from each other. There is no time to delay - share, learn, and prioritise delivery care.

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What about the new MDG 5b indicators?

article by Jolene Innis, Wendy Graham, Oona Campbell London School of Hygiene and Tropical Medicine

n January 2008, the UN added new MDG 5 indicator targets after the UN General Assembly resolved in 2005 that improved maternal health required universal access to reproductive healthcare¹. These MDG 5b indicators are shown in Box 1 below.

For every US\$100 million dollars invested in contraception², 2.1 million unintended births, 825,000 abortions, 70,000 infant deaths and 4,000 maternal deaths may be prevented. Antenatal care benefits mothers and babies, and specific elements such as counseling and testing for HIV or insecticide-treated bed nets to prevent malaria can reduce the disease burden of HIV and malaria. Yet a review³ of 16 UN agency websites in April 2009 found over half (UNICEF, the World Bank, UNEP, FAO, the OECD, the African Development Bank and the African Union) did not mention Target 5b. Revisiting these sites in the interim year suggests that the situation has barely changed, with only the World Bank and the African Development Bank adding Target 5b to some pages (accessed 20 March 2010). MDG 5b targets were also left off around half of the websites of major bilateral Donors, Ministries of

Foreign Affairs, International NGOs and Partnerships³.

Neglect of the MDG 5b indicators can be seen in other ways.

Box 1: MDG 5 Targets

Target 5a: Reduce by three quarters the maternal mortality ratio

5.1 Maternal mortality ratio.

5.2 Proportion of births attended by skilled health personnel.

Target 5b: Achieve, by 2015, universal access to reproductive health

5.3 Contraceptive prevalence rate .

5.4 Adolescent birth rate .

5.5 Antenatal care coverage (at least one visit and at least four visits) .

5.6 Unmet need for family planning.



International funding for family planning, which accounted for half of donor expenditures on population assistance activities in 1995, decreased in absolute terms since 2003⁴, although there is now some evidence of increase⁵. 'The effects of decreasing access to family planning and disengagement of the public sector are beginning to be documented in some countries where TFR is increasing following declines, for example in Kenya¹⁴.

The contraceptive prevalence rate and the unmet need for family planning in Commonwealth countries are shown in Figure 1. These indicators are not benchmarked by the official UN Millennium Goal site's Manual on Indicators⁶ (which has not been updated since 2003), but some reports imply that a 50 per cent contraceptive prevalence rate is desirable. This seems high for some countries. For example, Nigeria, Mozambique, Cameroon and Tanzania have data on both met and unmet need for contraception, which added together do not amount to a 50 per cent demand for contraception among women. These countries may wish to focus on creating demand. On the other hand, it is encouraging to note that two of the 12 Commonwealth priority countries, India and Bangladesh, do have a high contraceptive prevalence rate, with proportionally less unmet need.

Contraceptive commodity security for lowincome countries is challenging, with cost limiting the choice of methods in the public sector and in the developing world, and with the spread of counterfeit drugs internationally⁴. Nevertheless, success is possible as shown in Box 2.

The unmet need indicator (Figure 1 and Box 3)

Box 2: Success in Rwanda

Rwanda is one of the world's poorest countries, emerging from tragic genocidal civil war. President Paul Kagame recognis ed that high fertility and rapid population growth were stifling development and stated in 2007 'Family planning is priority number one – not just talking about it, but implementing it.'

Rwanda expanded family planning services, experimenting using new ways to deliver services and coordinated with donors to obtain resources. In two years, Rwanda documented a dramatic increase in the contraceptive prevalence rate from 10 per cent to 27 per cent⁷.

Box 3: What is unmet need?

A woman has an unmet need for family planning if she is married, in a union or sexually active, and is able to conceive; wants no more children or does not want to have a child in the next two years; and is not using any modern contraception or is using a traditional method⁸.



Figure 3: Antenatal care coverage (percentage of women aged 15-49 that received antenatal care at least once and at least four times during pregnancy with ANY provider), Commonwealth countries9. (Priority countries in orange.)



on the other hand is typically benchmarked at 0 per cent, which seems reasonable, as all women wanting to use contraception should have access.

The substantial proportions of women living in the Commonwealth with unmet need for contraception (Figure 1) are problematic. In some settings, unmet need exceeds the met need. Preventing unwanted pregnancy is perhaps the easiest way to prevent maternal deaths – women who are not pregnant cannot die of maternal causes. If the 30 per cent of women with unmet need for contraception used effective methods, then approximately 30 per cent of maternal deaths could be averted, including those of women who face the risks of unsafe abortion.

Pregnant adolescents contribute to the cycle of maternal and childhood mortality. Very young mothers face higher risks of dying in childbirth and their newborns also have poorer outcomes and higher risks of death. Young women frequently miss education opportunities, and their children miss the survival benefits known to accrue from having educated mothers. The adolescent birth rate (Figure 2) shows great disparities between Commonwealth countries, with the 12 priority countries generally having high rates. Again, there is no benchmark, but most reports imply very low rates are desirable. The Commonwealth Secretariat sees adolescent reproductive and sexual health as an essential part of the continuum of care required to reduce maternal mortality in the Commonwealth.

Coverage of antenatal care is shown in Figure 3, where the suggested benchmark is 100 per cent (universal) coverage. Coverage in

Box 4: What is holding back MDG 5b ^{3,8}

'We hear from European Governments. We hear from NGOs from the North. We don't hear from the South, from the countries affected by our decisions.' Dutch diplomat to the UN

"Simple. Governments don't ask for them." World Bank official on why few sexual and reproductive health research projects

Commonwealth countries is better that for skilled health professional attendance at delivery, with no countries having less than 50 per cent coverage for women having at least one antenatal care visit. Fewer women however have the recommended minimum of four antenatal care visits.

Data on the content of antenatal care, namely tetanus toxoid coverage, shown in Figure 4 are available for fewer countries but suggest tetanus toxoid coverage during pregnancy is high in general, with a few exceptions such as Nigeria and Papua New Guinea.

What is holding back MDG 5b?

Universal access to reproductive health services is a target that complements and supports MDG 5a on maternal health, and MDGs related to neonatal and child survival, HIV and Malaria, and gender equality. There is an enormous body of experience with delivering



family planning services in a variety of settings¹¹. Perhaps the challenge here for the Commonwealth is to want to prioritise these issues. \blacklozenge

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Make diarrhoea treatment available at home! (nutriset)

Diarrhoea is the **second leading cause of death** in children under 5, killing an estimated 1.6 million per year. Diarrhoea is also responsible for upwards of 1.15 million deaths of individuals over-five-years of age in Africa and South-East Asia – three times more than previously thought.

Yet, an inexpensive, efficient and easy treatment could drastically reduce the death toll: dispersible zinc tablets like ZinCfant[®], used in combination with oral rehydration salts (ORS).

As the deadline to achieve the Millennium Development Goal of cutting child mortality by two thirds draws nearer, a joint report was recently released by UNICEF and the World Health Organization (WHO) – Diarrhoea: why children are still dying and what can be done – insisting on the need to ensure the wide availability and use of ORS and zinc, together with other preventive actions.

While some Commonwealth countries have led the way by incorporating zinc into their national health policy for the clinical management of acute diarrhoea, much remains to be done to **guarantee zinc and ORS are readily available in health structures as well as at the household level**.

As the initial developer of dispersible zinc tablets, commercialized under the brand name ZinCfant[®], **Nutriset intends to contribute to the fight against diarrhoea** by partnering with pharmaceutical companies to **manufacture ZinCfant[®] in countries where the needs are the greatest**.

For more information, please visit our website **www.nutriset.fr/zincfant** or contact Nutriset at **zincfant@nutriset.fr**



bringing production closer to the needs

Dedicated to fostering nutritional autonomy in countries with the greatest need, Nutriset continues with its efforts to **ensure access to and availability of high-quality dispersible zinc tablets at an affordable rate in priority countries**. Nutriset has already successfully completed two transfer of technology initiatives with pharmaceutical companies in developing countries and in 2010 will launch **ZincField**, a network of producers of ZinCfant[®] in developing countries.

This model has proven to be successful for Plumpy'nut® ready-to-use therapeutic food, where partners within the PlumpyField network (11 countries, including Ghana, Tanzania and Malawi) benefit from **Nutriset's recognized technical know-how, quality systems, reputation and brand awareness** among humanitarian and other social actors.

> For the local production of ZinCfant[®], Nutriset has identified potential partners in Ethiopia and Tanzania and is in discussion with other groups in Vietnam, Pakistan and Guatemala.



Innovative delivery strategies

Today, ZinCfant[®] is primarily distributed through humanitarian programs. Though some countries, among them Uganda and Tanzania, have already registered dispersible zinc tablets, product registrations must be put on a faster track. Nutriset and LPR filed for WHO prequalification status to facilitate efforts to introduce dispersible zinc tablets into the private sector.

To further **improve the availability and proper use of ZinCfant® at the community and household levels**, Nutriset also participates in innovative delivery mechanisms. As a result of discussions with its partners, illustrated instructions of use will be added to the product information leaflet to facilitate caregivers' efforts in administering the tablets appropriately.

In adherence to the WHO and UNICEF recommendation, ZinCfant[®] has also been distributed together with ORS via a diarrhoea treatment kit, through a number of humanitarian partners.

In line with its mandate, Nutriset will continue its efforts in ensuring access to diarrhoea **treatment by developing its own treatment kit to include both ORS and ZinCfant**[®], by registering its products in more UNICEF and WHO priority countries and by partnering with local stakeholders to promote and distribute this innovative but easy to use treatment regime.



Zinc and ORS Stop diarrhoea, reinforce health

ZinCfant[®] 20 mg is a dispersible, scored Zinc sulfate tablet.

ZinCfant[®] reduces both the severity and the duration of diarrhoeal episodes and prevents the recurrence of diarrhoea for up to 3 months. ZinCfant[®] also boosts the immune system against other childhood maladies such as pneumonia, the leading cause of death in children less than 5 years of age.

In 2000, following a request from WHO, Nutriset and its pharmaceutical partner LP Rodael (LPR) collaborated towards the development of a rapidly dispersible zinc tablet using criteria and guidelines provided by WHO. Following a large scale clinical trial, and the subsequent release of a joint statement by WHO and UNICEF, Nutriset made ZinCfant[®] commercially available in November 2004. **Since then, it has been used in more than 40 countries worldwide, and in 2005 zinc sulfate was added to WHO's Model List of Essential Medicines.**

A preferred supplier of UNICEF for ZinCfant[®], **Nutriset managed to** overcome one of the greatest challenges facing producers of dispersible zinc tablets today: masking the taste of zinc, which up until the turn of the 20th century was used to induce vomiting. This unique technology greatly increases the acceptability of and adherence to diarrhoea treatment, including increased uptake of ORS.





Twenty-eight years into the AIDS epidemic, 16 million women are still living with HIV. The need for an HIV vaccine has never been greater.



To learn more about the Global HIV Vaccine Enterprise and our 2010 Scientific Strategic Plan for HIV vaccine development, visit our web site at www.vaccineenterprise.org.

We, the G8 Leaders, are determined to achieve tangible progress [in the fight against HIV/AIDS] by continuing to expand the Global HIV Vaccine Enterprise.

- G8 Leaders 2006 communiqué

The Global HIV Vaccine Enterprise is an alliance of independent organizations dedicated to accelerating the development of a safe and effective HIV vaccine.

Chapter 3

MDG 6: progress towards meeting the HIV/AIDS element

article by Dr Mbololwa Mbikusita-Lewanika

Health Section, Commonwealth Secretariat

In 2000 the global community set itself eight development goals and corresponding targets, ranging from the eradication of extreme hunger and poverty to the development of global partnerships for development, all to be achieved by 2015. These Millennium Development Goals (MDGs) represent a global framework agreed by all countries of the world and all leading development agencies for combating the hunger, poverty and disease burden affecting billions of people in the world. Indeed, three of the goals, Goals 4, 5 and 6, are health related.

Goal 6, which is the focus of this paper, is to combat HIV/AIDS, malaria and other diseases. The paper specifically focuses on the goal to combat HIV/AIDS. The first target of this goal is to have halted and begun to reverse the spread of HIV/AIDS by 2015. The second target is to achieve, by 2010, universal access to treatment for HIV/AIDS, for all those who need it. The various indicators for these targets are shown in Table 1.

The paper discusses the global progress towards the achievement of the goal to combat HIV/AIDS, making reference to some Commonwealth examples. The paper also discusses the challenges, gaps and what still needs to be done in order to get on track in terms of meeting the goal and its targets.

Global commitment

Since the global agreement in 2000 to halt and reverse the spread of HIV/AIDS, countries and development agencies have come together periodically not only to assess progress made, but also to re-group and re-strategise. Indeed, even in early 2000, before the MDGS were agreed, world governments recognised, through UN Security Council Resolution 1308, the seriousness of AIDS as a threat to social stability and even world peace. This was the first time in history that the UN Security Council had debated a health issue, reflecting the gravity of the situation.

In 2001, world leaders from 189 countries came together at the firstever Special Session of the United Nations General Assembly on HIV/AIDS (UNGASS), and acknowledged that the AIDS epidemic constituted a 'global emergency and one of the most formidable challenges to human life and dignity.' The Declaration of Commitment on HIV/AIDS, which was adopted at this meeting, whilst recognising the seriousness of the threat, also gave hope that, with united and concerted effort, the epidemic could be stopped in its track.

In 2006, world leaders at the United Nations General Assembly 2006 High Level Meeting on AIDS, not only reaffirmed the 2001 Declaration of Commitment and the MDGs, but also adopted a Political Declaration on HIV/AIDS. This provided a strong mandate to further strengthen the AIDS response and to scale up towards universal access of HIV prevention, treatment, care and support.

The goals, resolutions and declarations demonstrate worldwide commitment to stopping and reversing the HIV/AIDS epidemic and to increasing efforts towards universal access to HIV/AIDS treatment. Indeed there have been some achievements and successes, but as already alluded to, there have also been many challengesⁱ.

Target 6a: have halted by 2015 and begun to reverse the spread of HIV/AIDS

Achievements and successes

- In 2007, the number of people worldwide newly infected with HIV was about 2.7 million, representing a decline since 1996, when it had peaked at about 3.5 million¹, and a decline from the 2001 figure of 3 million².
- The number of AIDS deaths has declined from a peak of about 2.2 million in 2005 to about 2 million in 2007¹.

Knowledge about HIV and HIV prevention has improved among young people¹.

HIV prevention programmes and strategies are having a positive impact, especially in reducing risky sexual behaviour².

▶ In 14 of the 17 countries with the highest HIV prevalence rates, the percentage of HIV positive young women (15–24 years old) has declined².

 $^{\rm i}\,\text{Most}$ of the latest available data is for 2007 and 2008

Table 1.	Cool 6	oomhat U		malaria	and other a	licoacoc
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Target 6a	Indicators
Target 6a:Have halted by 2015	• HIV prevalence among population aged 15–24 years.
and begun to reverse the spread of HIV/AIDS.	 Condom use at last high-risk sex.
	• Proportion of population aged 15–24 years with comprehensive correct
	knowledge of HIV/AIDS.
	 Ratio of school attendance of orphans to school attendance of
	non-orphans aged 10–14 years.
Target 6b	Indicator
Target 6b: Achieve by 2010, universal	Proportion of population with advanced HIV infection with access to
access to treatment for HIV/AIDS for all	antiretroviral drugs.
those who need it.	

- The percentage of young people aged 15-19 becoming sexually active before they are 15 declined between 1990 and 2007, in seven countries with high HIV prevalence rates².
- Between 1990 and 2007, the proportion of young people aged 15-24 who had had more than one sexual partner in the preceding year decreased in 10 countries².
- In 12 countries, condom use increased among young men aged 15-24, who had had more than one sexual partner in the previous 12 months; it increased among young women of the same age in eight countries².
- With regard to vulnerable groups, by 2007, 32 countries had developed specific national plans of action to address the needs of AIDS orphans and other children, and 10 more countries were in the process of developing such plans¹.

The decline in new infections observed since 1996 was mainly due to decreased annual infection numbers in some countries in Asia, Latin America and sub-Saharan Africa¹. Improvements in prevention programmes have also contributed to the decline in new infections and HIV prevalence. The HIV prevalence rates among 15-24 year old pregnant women reflects developments in the epidemic more accurately because the infections represent new infections, and the observed trends are therefore less influenced by mortality or access to antiretroviral treatment.

Apart from their vulnerability because of their gender, young women are also at risk when they have early sexual debut, engage in unprotected sex with multiple partners, have sex with older partners who are more likely to have been exposed to HIV, have transactional sex, and because of violence against women and girls1. Improvements in some of these patterns are therefore encouraging². Changes in sexual behaviour have been followed by declines in new infections even in some of the most affected countries5.

A combination of condom use and delayed sexual debut has led to decreases in new HIV infections among young people⁶. Such declines have been seen in Commonwealth countries like Rwanda, Cameroon, Ghana, Uganda and Zambia, as well as in other countries, such as Burkina Faso, Ethiopia and Zimbabwe. As an example, the percentage of young people having sex before their fifteenth birthday has decreased from 35 per cent to 14 per cent, in Cameroon⁶. (Although knowledge levels about HIV have improved among young people, there are still serious challenges, which are discussed later on in the paper.)

Increased access to antiretroviral drugs in low-income countries has contributed to the decline in AIDS deaths seen since 2005¹. The improved and expanded treatment services have been mainly a result of increased international funding³, including financial support from the Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund)⁴.

In terms of groups most vulnerable to the AIDS epidemic, despite the initial inadequate response to the needs of children affected by HIV/AIDS, many governments and the international community are now providing programmes that address the educational, healthcare and social needs of such children². Twenty-nine of the 32 countries that have developed specific national plans of action for children are in the sub-Saharan region, which is most affected, as are nine of the ten countries developing similar plans¹. Many countries are also integrating these policies into their national development plans.

die from AIDS².

especially Eastern Europe and Central Asia¹.

- The number of people worldwide living with HIV/AIDS is still growing; from 29.5 million in 2001 to 33 million in 2007¹.
- 75–85 per cent of adult infections (70 per cent in heterosexual sex) are due to unprotected sex⁶.

Almost 7,500 people become infected with HIV everyday and 5,500

- Indications are that only 40 per cent of men aged 15–24 years and 36% per cent women of the same age group, 'understand how HIV is transmitted and how to prevent infection'.6 In many developing countries only about 31 per cent of young men aged 15-24 years, and 19 per cent of young girls of the same age have comprehensive and accurate knowledge of HIV¹.
- In two countries with high HIV prevalence rates, the percentage of young people aged 15-19 becoming sexually active before their fifteenth birthday increased between 1990 and 2007².
- Between 1990 and 2007, the percentage of young people aged 15-24 who had had more than one sexual partner in the preceding year remained the same in one country, increased in two countries, increased among women in two countries, and increased among voung men in one².
- In most regions of the world the proportion of women living with HIV/AIDS is increasing, from a worldwide population of 14.1 million in 2001 to 15.5 million in 2007².
- ▶ 2.1 million children worldwide under the age of 15 are living with HIV, with most of them (1.8 million) in sub-Saharan Africa7.
- In 2007, 15 million children worldwide had lost one or both parents to AIDS, and almost 12 million of those were in sub-Saharan Africa¹.
- The percentage of households with orphans and vulnerable children who get external support is still low even in countries with high HIV prevalence (9 per cent on average)².
- The global economic crisis may adversely affect some of the programmes and activities that have proven useful and effective¹.

Growing numbers of people living with HIV/AIDS

World leaders meeting in 20086 concluded that 'the number of infected individuals is expected to continue growing slowly in sub-Saharan Africa and to remain near current levels worldwide because of the lifeprolonging effect of antiretroviral treatment and sustained population growth'. Indeed, in Eastern Europe and Central Asia HIV prevalence rates have doubled since 2001, and the number of people living with HIV/AIDS has more than doubled from 630,000 in 2001 to 1.6 million in 2007¹

Thirty-three million people worldwide were living with HIV/AIDS in 2007¹. Sub-Saharan Africa still bears the brunt of the epidemic, with two-thirds of those living with HIV/AIDS globally. More than a third of new infections and almost 2 in 5 AIDS deaths (38%) occurred in Southern Africa. Most of the people infected with HIV in sub-Saharan Africa (60%) are women.^{1,2}

Vulnerability of women and girls

Women worldwide are disproportionately vulnerable to HIV infection for various reasons, including gender inequalities that often exclude them from decision-making. Many women may therefore have little control even over risk-taking behaviour or sexual interactions. Too often women and girls are not socially or economically empowered enough to have control over their lives, including their sexual and reproductive lives, or

Challenges and gaps

Infection rates continue to increase in some parts of the world,

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Figure 1: Percentage of women aged 15-24 with comprehensive correct knowledge of HIV, 2003-2008

even in terms of access to services. This gender inequality exacerbates the epidemic.

Young women are more vulnerable when they have poor or inadequate knowledge and skills to protect themselves, and when they have limited access to quality sexual and reproductive health services, including HIV prevention¹. Although the knowledge levels have improved, they are still very low1, especially when compared to the UNGASS goal of comprehensive HIV knowledge of 95 per cent by 2010. Figure 1, shows the knowledge levels about HIV, among young women aged 15-24.

Social protection for children and other vulnerable groups

Children represent another vulnerable group with regard to the HIV epidemic. HIV/AIDS and being orphaned is an incredible challenge to children and their families. This is compounded by poverty and poor educational attainment. Evidence shows that many children affected by HIV/AIDS tend to 'cluster in poor households with low levels of education'1. Of the 19 countries that had data, only an average of 9 per cent provided support for vulnerable children, ranging from 1 per cent in Sierra Leone to 41 per cent in Swaziland².

Cash-transfer programmes have been shown to work well in providing food, shelter and education for children in communities with high HIV prevalence levels¹. The programmes also bring some economic relief to households affected by AIDS. There is however concern that these programmes may be threatened by the global economic crisis.

Other groups that are vulnerable to the epidemic include, sex workers, men who have sex with men, injecting drug users and prisoners. Their access to HIV prevention and care services is inadequate³. In 2006, less than one in twenty of men who have sex with men, and about 5 per cent of injecting drug users, had access to such services.

What still needs to be done?

Prevention

Addressing the gender inequality that fuels the HIV epidemic requires interventions at all levels of society, including education and legal reforms. Social and cultural expectations and practices also play an important role in gender inequality, and so need to be addressed with whole communities and at institutional levels.

Evidence shows that delivery of comprehensive sex education through schools is 'effective in changing attitudes and practices that lead to risky behaviour'¹. The education sector can therefore play an important role in HIV prevention not only by disseminating appropriate information but also by providing young people with skills to put that knowledge into practice.

Evidence further shows that HIV prevention programmes and strategies are a critical component in addressing the epidemic⁶. The report from the High-level Event on MDG 6, suggests that 'prevention is 28 times more cost-effective than treatment', and that appropriate measures could prevent almost two-thirds of the 45 million infections predicted for the period 2002 to 2010. This would initially cost about US\$4.2 billion annually.

In view of the importance of prevention, and the low level of accurate knowledge about HIV/AIDS, there is need to scale up programmes which raise awareness and knowledge about HIV and its transmission, as well as their effectiveness. 'Sustained, intensive behaviour change programmes promoting increased use of condoms, delayed sexual initiation and fewer sexual partners' have been shown to reduce the incidence of HIV⁶. Whilst fully supporting the importance of prevention, Coovadia and Hadingham⁸, recognise the importance of balancing prevention and treatment programmes. Hogan et al⁹, whilst recognising the cost effectiveness of some prevention measures, especially in lowincome countries, also concluded that 'a combination of prevention and treatment can be highly cost effective'.

Addressing the needs of HIV/AIDS orphans

Whilst recognising the vulnerability and needs of children orphaned by HIV/AIDS, there is also an acknowledgement that there are many children who are vulnerable because of a variety of other reasons. In sub-Saharan Africa alone, in 2007, 47.5 million children had lost one or more parents to AIDS or other causes, including war and conflicts¹.

The preferred approach is therefore to help all vulnerable children, families and communities. In that way children orphaned by AIDS are not stigmatised by being singled out, especially at school, and support systems and mechanisms are strengthened to help them.

The threat to some effective programmes has already been alluded to. Social welfare structures at local, national and global levels can be helpful in mitigating the impact of the global economic crisis on effective programmes like cash-transfers. The Government of Malawi, with UNICEF support, launched a pilot programme called Social Cash Transfer (SCT) designed to address poverty¹⁰, which is exacerbated by the HIV/AIDS crisis.

A personal story from the scheme is that of a mother of two, who was widowed and living with HIV, but suffering stigma and ill-health. Participation in the scheme changed her life. Just after a year she was able to provide a house for her family, buy school kits for her children and acquire livestock. Her health improved because of the antiretroviral treatment she was now receiving and she was even able to start a small business selling fish. She said, 'the cash transfers have renewed my hope in the children's future'. 'In the past, I was worried all the time. Today I am able to send my kids to school with food in their stomachs and books in their hands. I know that with proper education they will be fine.'

Addressing human rights

With regard to other groups most vulnerable to the epidemic, there is also an urgent need to promote human rights and to fight stigma and discrimination. Sometimes people living with HIV/AIDS do not access services, treatment or care because of fear of being stigmatised³. Hence the urgent need to address stigma and discrimination not just at individual and community levels, but also in legal terms. According to Jan Vandemoortele¹¹, silence, shame, stigma and superstition are the four allies that worsen the epidemic, 'making education a key to defeating this deadly alliance'.

At the local level, DFID³ has been supporting programmes which provide legal education and rights awareness for people living with HIV/AIDS. In some of Commonwealth countries such as Malawi, Uganda and Rwanda, as well as in Togo and Niger, such programmes have included some of the most vulnerable groups like women, children, sex workers and young people. In Bangladesh, sex workers and their children are empowered to demand their rights for basic HIV and health services, and to raise awareness of the discrimination and abuse they face. In South Africa, there is a DFID-supported media programme which effectively helps to breakdown the barriers of HIV/AIDS stigma.

Target 6b: achieve by 2010, universal access to treatment for HIV/AIDS for all those who need it Achievements and successes

Achievements and successes

- A ten-fold increase, within five years (2003–2008), in access to antiretroviral medication in low-income countries¹.
- Between December 2006 and December 2007, 3 million people in the developing world received antiretroviral drugs i.e. a 42–47 per cent increase within one year^{6, 1}.
- 200,000 children received treatment in 2007 compared to 75,000 in 2005¹.
- Women across the world are able to access antiretroviral drugs to the same extent as men, if not more so¹.
- In 2007, a third of pregnant HIV positive women received antiretroviral medication to prevent the transmission of the virus to



their unborn babies, compared to only 10 per cent in 2004 and 14 per cent in 2005^2 .

- Sub-Saharan Africa, the region that has been most affected by the HIV/AIDS epidemic, has seen the greatest increase in access to antiretroviral drugs¹.
- Anti-retroviral drugs are improving the longevity of people living with HIV/AIDS².

The increase in access to antiretroviral treatment in 2007 was unprecedented, estimated to be between 42 per cent⁶ and 47 per cent¹. Most of this access was funded by the Global Fund¹, and significantly contributed to the successes and achievements already mentioned. Between 2005 and 2007, the number of children newly infected with HIV also fell from 410,000 to about 370,000.

The figures relating to prevention of mother-to-child transmission (PMTCT) represent 491,000 pregnant women who received treatment in 2007, out of the 1.5 million who need the treatment. In some Commonwealth countries such as The Bahamas, Barbados and Botswana, more than 75 per cent of pregnant women have PMTCT treatment. Other non-Commonwealth countries such as Argentina, Belarus, Cuba, Georgia, Moldova, Russia and Thailand have also reached more than 75 per cent coverage.

In 2009, UNAIDS linked up with the Millennium Village Project to strengthen prevention of mother-to-child HIV transmission (PMTCT) at village level, with the aim of totally eliminating mother-to-child transmission, thus creating 'MTCT-free zones'¹². In Millennium village

Figure 2: A community health worker gives an HIV positive patient antiretroviral drugs in Kenya (source: Yoshi Shimizu / International Federation of Red Cross and Red Crescent



sites, HIV testing among pregnant women had already increased from about 10 per cent to over 60 per cent in preceeding three years. The partnership, by bringing diverse expertise and experience, hopes to maximise on these gains. Examples include the Millennium villages in Sauri, Western Kenya and Pampaida village, Kaduna State, Nigeria, where villagers are experiencing great improvements not only in their health, but also in education and poverty alleviation^{12, 13}.

Challenges and gaps

- For every person who started HIV treatment in 2007, three new people were infected with HIV¹; for every two people starting treatment, there are five new infections¹⁴.
- In 2007, more than two-thirds (69%) of those who required antiretroviral drugs were not able to get treatment¹.
- Only 12 per cent of pregnant HIV positive women in sub-Saharan Africa attending antenatal clinics were assessed to check whether they were eligible for antiretroviral treatment¹.

Of the 9.7 million people estimated to be in need of antiretroviral drugs in the developing world², only about 3 million had received treatment by the end of 2007. Despite the increase in the numbers of people receiving antiretroviral treatment, the infection rate (2.7 million people newly infected in 2007) means that the demand for treatment is greater than the availability of medication².

Although sub-Saharan Africa showed the greatest increase in access to antiretroviral treatment, the extent of the epidemic is such that about 5 million people in that region did not have access to treatment². Another concern is that the percentage of people receiving treatment in other regions of the world, such as Eastern Asia, Southern Asia and the Commonwealth of Independent States, is much lower than in sub-Saharan Africa².

What still needs to be done?

Although there was a ten-fold increase in the international funding for HIV/AIDS programmes in low- and medium-income countries, in less than a decade, there was still a shortfall in terms of addressing the need⁶. The US\$10 billion available in 2007 fell short of the US\$18 billion projected requirement to combat HIV/AIDS.

The increased international, as well as domestic, funding reflects the strong political will and drive to combat HIV/AIDS through prevention and treatment. There is still however a big gap in terms of funding universal access to antiretroviral treatment, as well as prevention and care programmes and strategies.

Apart from the funding gap, there are gaps in terms of implementation³. There are challenges globally and within countries in terms of channelling resources to the most vulnerable groups. Too often resources are not disbursed in proportion to HIV prevalence³. Coovadia and Hadingham⁸ suggest that historical weaknesses in the health systems of low-income countries contribute to 'bottlenecks in the distribution and utilisation of funds'. There is however need to support not just the infrastructure but also human resources^{15, 16}.

Conclusion

Although there has been overall progress towards meeting the MDGs, the progress is not uniform across the world, with variations from region to region and from country to country. Furthermore, despite this progress, many countries are struggling to get on track in terms of achieving the health-related MDGs, including halting and reversing HIV/AIDS. This may seem to warrant Jan Vandemoortele's observation that 'global targets are easily set but seldom met'¹¹.

Another observation about the MDG framework is that it is difficult to accurately measure progress, or the lack of it, because it is often hard to get sufficient and reliable data. This is particularly so with the health-related MDGs²⁰. Most of the analysis and commentary is based on regional and sub-regional data. Although these figures generally represent weighted averages of country data, national figures may vary immensely from regional averages. In order to accurately report or monitor progress towards the MDGs, and to effectively hold the international community to account, reliable national and international data is needed. There have been various initiatives to reconcile national and international dataⁱⁱ, and to build data collection and analysis capacity within countriesⁱⁱⁱ.

Despite the challenges of tracking the progress made towards the MDGs, and the developmental setbacks, there is hope that MDGs can still be achieved. It is not just the success stories and achievements listed in this paper that give hope, but also the concerted global effort, galvanised by strong, commitment at the highest levels, and backed by diverse strategies and programmes at local, national and regional levels. Indeed Jan Vandemoortele¹¹ alludes to the fact that 'committed leadership, strong partnership, extra money, and deeper participation by the poor can bring the world back on track towards the MDGs'. Berg and Qureshi¹⁷ also suggest five priorities that can help countries towards achieving the MDGs: ownership, economic growth, expansion of education and health services, improved market access for developing countries, as well as more and better aid.

Clearly, there has been a lot of funding¹⁵ and effort that has gone into programmes to meet both Targets 6a and b. Funding and efforts still however need to be almost doubled in order to get on track in terms of meeting this goal and its targets. Adequate access to treatment and prevention programmes is critical in the fight against HIV/AIDS⁸ and in efforts to achieve the goals and targets set for combating the disease. If the treatments are not affordable to many people, especially in the

[&]quot;The United Nations Inter-Agency and Expert Group on MDG Indicators has promoted a dialogue 'to improve the coherence of national and international data and to ensure the quality and transparency of methodologies and data produced'.
"MDG report 2009 states that work has been done in countries and regions 'to

[&]quot;MDG report 2009 states that work has been done in countries and regions to improve the availability of data, the coordination of national statistical systems and the mechanisms for reporting to international statistical agencies'. The 2004 Marrakech Action Plan for Statistics was 'adopted by aid recipients and donor stakeholders at the Second International Roundtable on Managing for Development Results, and was a major step towards improving the capacity of developing countries to produce, analyse and disseminate data'.'UN Economic and Social Council endorsed a resolution adopted by the UN Statistical Commission highlighting the need to build statistical capacity in countries with limited resources.'



developing world, the chances of meeting MDG 6 are lowered.

Many poor people in developing countries cannot access many essential medicines because of prohibitive prices, especially under the current economic climate. It is however possible to give everyone in the developing world access to affordable medicines. This would cost US\$5 billion annually, the equivalent of about US\$1 per annum per capita for the whole developing world¹⁸. This would require the interventions of the global partnerships articulated in

MDG 8. In fact improved access to affordable essential medicines for developing countries, is one of the targets for MDG 8. This demonstrates the interdependence of the MDGs; achievement of many MDGs depend on the achievement of other goals.

Indeed, the need for an adequately funded multi-sectorial response in efforts to achieve the health-related MDGs, and other MDGs, has been articulated often. Unless the AIDS epidemic is halted and reversed, it

What needs to be done

- Implement a long-term multi-stakeholder, multi-sectorial and gender-sensitive approach, based on national AIDS plans.
- Create closer linkages between HIV/AIDS interventions and sexual and reproductive healthcare to reduce unsafe sexual risk-taking behaviours, and reduce sexually transmitted infections, including HIV.
- Increase access to both male and female condoms, which are the only currently available and effective ways to prevent HIV and other sexually transmitted infections among sexually active people.
- Make sure all young people, who are at the centre of the epidemic, have the knowledge and means to prevent infection.
- Ensure predictable and sustained funding to address the HIV/AIDS pandemic.
- Scale up programmes for HIV prevention and ensure universal access to treatment for HIV/AIDS for women and men.
- Develop sustainable national health systems, delivering quality services and retaining professional staff.
- Develop primary healthcare systems to ensure universal coverage for essential health services, including for poor and under-served populations in rural areas and urban slums.
- Promote mechanisms to substantially increase funding for research and development of essential drugs to treat HIV/AIDS and other infectious diseases.
- Commit additional funding for the global partnership for affordable essential drugs.

Source: Committing to Action: Achieving the MDGs, Background note by the Secretary-General for the High-level Event on he Millennium Development Goals, United Nations, New York, 25 September 2008 will in turn jeopardise the achievement of the other MDGs¹⁹, including the health-related Goals 4, 5 and 6. Not achieving the HIV/AIDS MDG will therefore undermine progress in poverty reduction, universal access to education, reducing child mortality, improving maternal health and combating tuberculosis and malaria. Poverty, hunger, low educational attainment and poor health outcomes in turn exacerbate the AIDS epidemic, as does gender inequality and inadequate economic growth.

The current MDG situation globally is that 'every region faces particular challenges but has the opportunity to work together in order to achieve the MDGs²¹. Whilst acknowledging the challenge ahead, there is also hope that 'the goals are achievable with global political support, strong partnerships and coordinated efforts'²¹.

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Gilead Sciences: An Innovative Model for Fighting HIV/AIDS in the Developing World

Despite global efforts, millions of people in developing countries currently lack access to the HIV treatment they need. But an innovative access program established by Gilead Sciences is now delivering antiretroviral drugs to more than 700,000 patients

and provides a scalable, sustainable model for building toward universal access.

More than 33 million people worldwide are living with HIV.¹ As many as 14 million need antiretroviral treatment now, and nearly all may need to begin treatment within the next five years.^{2,3} Collaborative research and development efforts have helped create better therapies for patients, but treatment too often remains out of reach, particularly for the nearly 95 percent of people with HIV who live in developing countries.

Gilead Sciences, a research-based biopharmaceutical company that works to expand treatment options and improve the care of people with HIV/AIDS and other life-threatening diseases, has established an innovative access model that has significantly increased the number of developing world patients receiving HIV treatment – from just 100 people in 2003 to more than 700,000 by the end of 2009.



UNAIDS and WHO. AIDS Epidemic Update. November 2009

Gilead works with manufacturing and distribution partners around the world to provide a range of branded and generic versions of the company's medicines and ensure their availability where they are most needed. Together with the efforts of advocates, researchers, health professionals, policymakers and others around the world, further scale up and replication of Gilead's model could help maximize access to HIV/AIDS treatment in a way that will be sustainable over the long term.

The Need for Treatment Access Programs

The advent of combination antiretroviral therapy transformed the lives of many people living with HIV, and over the past 15 years treatments have continued to improve, becoming more effective and easier to take with fewer side effects. But the discovery and development of these medicines continues to be a complex and expensive process.

Believing that people in resource-limited countries have the same right to treatment as people in wealthy countries – and that providing HIV treatment is essential to rebuilding communities and developing economies – multilateral, bilateral and national government agencies and nongovernmental organizations around the world have launched large-scale efforts to expand access to treatment. They have made impressive progress: between 2002 and 2008, the number of people in developing countries receiving treatment increased by more than 1,200 percent, from fewer than 300,000 to more than four million.^{4,5}

Yet these four million people represented fewer than half (42%) of the estimated total need for treatment in 2008.⁵ And in 2009, in light of mounting evidence that beginning treatment earlier can help people with HIV stay healthier and survive longer, the World Health Organization (WHO) revised its HIV treatment guidelines. The WHO guidelines now recommend that patients begin treatment as soon as their CD4 counts fall below 350 cells/mm³ (the previous recommendation had been to start at 200 cells/mm³).⁶ With this change, millions more people became eligible for treatment.

Further, because HIV medications can only suppress the virus – not eliminate it completely – individuals on treatment must continue to take HIV drugs over the course of their lives. And the epidemic In 2008, for every person who began receiving treatment, nearly three more continues to grow. became newly infected with HIV.^{1,5,7} For all of these reasons, the world needs a sustainable approach to meet this escalating need for effective, affordable medications.

The Gilead Sciences Access Model

As the market leader in the development of therapeutics for the treatment of HIV, Gilead Sciences makes it a company priority to ensure that its innovative medicines are available and accessible to all who can benefit from them, regardless of where they live or their ability to pay. The Gilead Access Program, established in 2003, provides HIV medications Viread[®] (tenofovir disoproxil fumarate) and Truvada[®] (emtricitabine and tenofovir disoproxil fumarate) at steep discounts in some 130 countries, representing two-thirds of the countries in the world and the regions hardest hit by the HIV/AIDS epidemic. While obtaining regulatory approvals country by country was initially a slow, complex process, Gilead has made significant progress in this area, with Viread currently registered in 82 countries and Truvada in 78, up from 19 and 16, respectively, just three years ago.



Tiered Pricing for Gilead HIV products

The Access Program delivers medications through two parallel tracks. The first focuses on the manufacture and delivery of branded Viread and Truvada. To guarantee adequate drug supplies, Gilead has established manufacturing partnerships with organizations in the Bahamas (PharmaChem Technologies and the Grand Bahama Port Authority) and South Africa (Aspen Pharmacare). A network of 11 distribution partners and 48 sub-distributors around the world ensures that Gilead's medicines reach patients securely and efficiently.

In addition to delivering treatment, Gilead's distribution partners help register the products (leveraging their knowledge of local systems), manage on-the-ground logistics and provide medical education. Gilead provides these partners with comprehensive training so they can offer clinical and community-based education, address medical information requests and set up standard reporting systems within their respective regions.

Gilead uses a tiered pricing system for countries in its Access Program. Product prices in the wealthiest nations of the world are based on the product's full value, and discounts are given in low- and lower middle-income pricing tiers. The tiers are determined by several criteria, particularly a country's economic status (using gross national income per capita) and HIV prevalence. Through this program, substantial price reductions on Viread and Truvada are available to nearly all members of the Commonwealth.

Gilead Access Program Countries

(Commonwealth members in red)

Afghanistan Albania Algeria Angola Anguilla Antigua and Barbuda Argentina Armenia Azerbaiian Bahamas Bangladesh Barbados Belarus Belize Benin Bhutan Bolivia Bosnia and Herzegovina

Botswana Cuba Brazil British Virgin Islands Burkina Faso Burundi Eavpt Cambodia Cameroon Cape Verde Eritrea Central African Republic Chad Fiii Chile Gabon China Colombia Comoros Ghana Congo Congo/DRC Costa Rica Guinea

Côte d'Ivoire

Djibouti Dominica **Dominican Republic FI Salvador** Equatorial Guinea Ethiopia Gambia Georgia Grenada Guatemala Guinea-Bissau

Guvana Haiti Honduras India Indonesia Iran Iraq Jamaica Jordan Kazakhstan Kenya Kiribati Kvrgvzstan Lao, People's Dem, Rep. Lebanon Lesotho Liberia Libva

Malawi Malavsia Maldives Mali Mauritania Mauritius Mexico Moldova Mongolia Montenegro Montserrat Morocco Mozambique Mvanmar Namibia Nauru Nepal

Madagascar

Nicaragua Niger Palau Peru Russia

Nigeria Oman Panama Pakistan Papua New Guinea Paraguay Philippines Rwanda Saint Kitts and Nevis Saint Lucia Saint Vincent and the Grenadines Togo Samoa São Tomé and Príncipe Trinidad and Tobago

Senegal Sevchelles Sierra Leone Solomon Islands Somalia South Africa Sri Lanka Sudan Suriname Swaziland Svria Tajikistan Tanzania Thailand Timor-Leste Tonga

Tunisia Turkmenistan Turks and Caicos Tuvalu Uganda Ukraine Uruquav Uzbekistan Vanuatu Venezuela Vietnam Yemen 7ambia Zimbabwe

Innovative Generic Partnerships

In 2006, Gilead launched a second track to the Access Program by providing non-exclusive licenses to several Indian generic manufacturers. Gilead now has 13 Indian partners, who manufacture and sell generic versions of Gilead products. In 2007, Gilead provided Aspen Pharmacare with a similar license, enabling the production of both branded and generic Gilead products in Africa. Gilead provides its generic partners with a full technology transfer to produce and distribute quality, low-cost versions of Gilead's HIV medications in 95 developing countries, representing nearly all low-income countries as well as hard-hit middleincome countries such as India, South Africa and Thailand. Licensees are free to establish pricing for their products, and to develop fixed-dose combinations and pediatric formulations. Gilead receives a 5 percent royalty on finished product sales based on the generic price.



Gilead's generic partners are able to manufacture high volumes of product at a relatively low cost of production. They also have extensive experience in breaking down in-country barriers, navigating healthcare systems and distributing HIV medicines in the developing world. Additionally, extending the licenses to multiple manufacturers creates market competition to help drive costs down: to date, the cost of generic Viread has fallen by more than 50 percent of Gilead's branded price, which is itself already a fraction of the price in the United States or Europe. These generic partners have received a combined 10 tentative approvals through the U.S. Food and Drug Administration and two prequalifications by the World Health Organization. Most importantly, more than 385,000 patients are now receiving high-quality, low-cost generic versions of Gilead's medicines.

Meeting the Global Need

These innovative approaches have directly translated into patient benefit across the developing world, and provided a sustainable model for improving global access to HIV treatment. Because the model is self-supporting and takes into account the need to manage country regulatory approvals, medical education and logistical matters, it can be scaled to meet growing demand.

Providing antiretroviral treatment dramatically reduces HIV-related deaths, illness and disability, strengthens families and communities and improves workplace productivity. A growing number of studies also indicate that switching from older HIV medicines to tenofovir-based regimens is cost-effective and can save health systems money^{8,9} – important to note as Ministries of Health weigh difficult choices about where to invest limited resources.

Achieving the Millennium Development target of universal access to HIV treatment will require ongoing commitment from governments, industry and multilateral and nongovernmental organizations. Gilead Sciences is committed to playing its part, alongside its key collaborators and partners, in this critical effort.

For More Information

To learn more about Gilead Sciences and the company's efforts to increase HIV drug access in the developing world, please contact us via email at public_affairs@gilead.com.



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The Economic Community of West African States and the health MDGs

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The Economic Community of West African States (ECOWAS) comprises 15 West African countries (eight Francophone, five Anglophone and two Lusophone). It has a population of about 290 million, and extreme poverty is a reality for 70 per cent of this population who live on less than US\$1 a day. The region accounts for 4.6 per cent of the world's population and over 40 per cent of that of sub-Saharan Africa. Although linguistic, demographic, cultural, political and economic differences exist among countries in the region, they all face common challenges, which include – poverty, food insecurity, poor health indicators, low literacy rates, low status of women, genderbased violence and gender inequality.

COWAS member countries have all committed to the implementation of the Millennium Development Goals (MDGs). Two-thirds of the way between their adoption in 2000 and the 2015 target date for achieving the MDGs targets, some countries in the region have made no significant gains, others some gains, while some others gains were reversed. Most countries in our region are significantly off track to achieve any of the health MDGs targets.

MDGs-Health outputs in the ECOWAS region

MDG 4: Reduce child mortality

Children in the region continue to die from preventable or easily treatable diseases such as malaria, diarrhoea, pneumonia and measles. Although the overall under-5 mortality rate (U5MR) in West Africa has fallen since 1990 (from 215 per 1,000 live births in 1990 to 183 in 2006), the average annual regression rate (AARR) obtained between 1990 and 2006 was only 1 per cent, which was below the 4 per cent

minimum per year that would have been necessary to keep countries in the region on track for attaining MDG4 by the year 2015 (UNICEF 2007 Progress for Children).

According to Health and Population Surveys and MICS surveys conducted in the region, some countries have made progress in reducing under-five mortality while others have made no progress. Sierra Leone, Niger, Liberia, Mali, Burkina Faso and Guinea Bissau have U5MR of 200 and above per 1,000 live births. For other countries like Senegal, Gambia, Ghana, Guinea, Côte d'Ivoire, Togo, Benin and Nigeria, there is some progress but it is still inadequate (Figure 1). Cape Verde is the best performing country with an U5MR of 32 per 1,000 live births.

ECOWAS countries are making steady progress in improving the infant mortality rate (IMR) in the region, but it is still generally poor. Estimates for 2007 provided in the UNICEF 2009 Report of the State of the World Children reveal four countries in the region (Sierra Leone, Mali, Guinea Bissau and Burkina Faso) are amongst the 10 countries with the world's highest IMR. Cape Verde is the best performing country with an IMR of 24 per 1,000 live births.

Progress has been made in the fight against measles. Routine immunisation coverage has expanded as well as measles campaigns. Cape Verde and Burkina Faso registered coverage of 94 per cent each in 2007, while Ghana and Liberia each had 95 per cent coverage. The remaining countries had coverage below 85 per cent and are scaling up actions to improve coverage.

MDG 5: Improve maternal health

Women in the region continue to die daily from the complications of pregnancy and childbirth, while others suffer from pregnancy-related illnesses. Countries in the ECOWAS region continue to have some of the highest rates of maternal mortality in the world. The average sub-



regional maternal mortality is 967 deaths per 100,000 live births, while the average for the whole of Africa was 900.

Apart from Cape Verde, the maternal mortality ratio (MMR) remains above 500 per 100,000 live births in all other countries. The situation is worrying in Sierra Leone that continues to have the highest MMR in the world and in Liberia where gains made were reversed (MMR of 774 in 2005 and 994 in 2007). Only Cape Verde has made significant progress in reducing its rate of maternal mortality (210 in 2005).

To achieve MDG 5, maternal mortality would have had to drop by 5.5 per cent each year between 1990 and 2015. However, according to figures provided by WHO, UNICEF, UNFPA and the World Bank, maternal mortality has reduced by a level below 1 per cent each year between 1990 and 2005.

The number of births attended by skilled health personnel in the region is also generally low. The average for the region in 2007 was 50 per cent compared to 46 per cent throughout Africa (WHO Statistics, 2009). However, Cape Verde, Benin, and Togo have recorded considerable progress in this regard attaining 78 per cent, 78 per cent, and 62 per cent respectively of births attended by skilled health personnel in 2007.

In the region, the decline in fertility is noted in some countries. Cape Verde and Ghana each have a total fertility rate (TFR) of less than 4. In several other countries, there is a slow decline in TFR –. Cote d'Ivoire, Gambia, Togo, and Senegal have TFR of less than 5 each, while the remaining countries have TFR between 5 and 7. The average contraceptive prevalence rate is 8 per cent in the region. The low use of contraceptive methods explains the heavy impact on maternal and infant mortality. One third of women have unmet family planning needs and there are concerns regarding RH commodity security.

MDG 6: Combating HIV/AIDS, malaria and other diseases HIV/AIDS

The number of AIDS-related deaths continues to rise in sub-Saharan Africa. However, the West African region continues to have a low prevalence rate. HIV/AIDS prevalence rates, drawn from population studies in ECOWAS countries, are presented in Figure 2.

Côte d'Ivoire has highest HIV prevalence rate in the region, followed by Nigeria, Ghana, Burkina Faso and Liberia. In Senegal and Niger, the prevalence rate is below 1 per cent.

Table 1 presents the number of patients under ARVs, and coverage of adults and children in June 2009.

An estimated 400,000 people were treated with nearly 50 per cent undergoing treatment in Nigeria and Côte d'Ivoire. Average coverage rate for ARV access is 15 per cent. Amongst adults, the best ARV coverage was noted in Mali, Senegal, Ghana, and in Guinea. Amongst children, Burkina Faso, Guinea Bissau, Benin and Senegal have the best coverage.

Malaria

Malaria continues to account for a large number of deaths, especially



Table 1: Number of patients under ARVs and ARV coverage in the ECOWAS region

Country	Number of PLWH under ARV	Coverage	
		Adults	Children
Benin	12,679	46%	33%
Burkina-Faso	21,103	45%	50%
Cape Verde	462	45%	17%
Côte d'Ivoire	57,534	48%	5,3%
Gambia	770	9.8%	NA
Ghana	21,541	56%	4%
Guinea Conakry	12,171	52%	7%
Guinea-Bissau	1,809	25%	40%
Liberia	NA	NA	NA
Mali	17,098	77%	NA
Niger	2,846	NA	NA
Nigeria	236,659	66%	NA
Senegal	10,990	34%	NA
Sierra Leone	4,656	50.3%	NA
Togo	15,608	22%	NA

Source: ECOWAS Country Members Programme Data - June 2009

Table 2: Number of malaria cases reported on a country basis in 2008

Country	Cases	Deaths	
Benin	1,209,364	1,195	
Burkina	3,443,354	7,857	
Cape Verde	39	2	
Côte d'Ivoire	1,343,654	NA	
Gambia	362,098	150	
Ghana	3,128,376	4,622	
Guinea	642,305	NA	
Guinea Bissau	160,000	500	
Liberia	216,668	NA	
Mali	1,012,730	1,227	
Niger	2,071,304	2,899	
Nigeria	3,591,230	9,337	
Senegal	275,806	838	
Sierra Leone	420,547	420	
Togo	840,000	2,520	
Total	18,717,475	31,567	

Source: ECOWAS Country Members Programme Data - June 200



Table 3: Proportion of new smear positive <u>TB cases detected and cured under DOTS</u>

Country	Case detection rate (%) (70% target)			Treatment success rate (%) (85% target)		
	1995	2000	2006	1995	2000	2006
Benin	83	86	86	73	-	87
Burkina						
Faso	11	17	17	25	60	71
Cape						
Verde	-	-	33	-	-	64
Cote						
d'Ivoire	50	32	37	68	-	75
Gambia	74	-	64	76	-	87
Ghana	15	37	38	54	50	73
Guinea	44	54	55	78	68	72
Guinea-						
Bissau	-	45	64	-	-	69
Liberia	-	26	55	79	80	76
Mali	16	17	26	59	-	75
Niger	-	40	49	-	65	74
Nigeria	11	12	20	49	79	75
Senegal	62	53	-	44	52	-
Sierra						
Leone	28	33	35	69	77	86
Togo	13	11	19	60	-	71
Source: WHC) TB Global I	Report, 2008				

amongst the under-fives. Table 2 presents the malaria situation and related reported deaths in 2008. During the period, over 18 million cases of malaria were recorded in national health services. These figures remain lower than the real number of cases since many people do not consult the health services and many countries reporting did not include statistics from the private sector. During the same period, over 31,000 deaths were reported.

The use of insecticide-treated nets (ITN) is one of the malaria prevention strategies. Figure 3 shows the use of ITNs amongst underfives and pregnant women in Nigeria and Sierra Leone. Despite increased coverage noted in children under five sleeping under ITN when it comes to other countries in the region, especially in Gambia, and Guinea Bissau, with 56 per cent and 49 per cent respectively of under fives sleeping under ITNs, countries in the region are still far from attaining the expected target.

Tuberculosis

Tuberculosis incidence is diminishing globally but the number of new cases in the region is on the increase. In 2007, there were an estimated 806,577 new cases of tuberculosis (TB) in countries in the region, with almost 600,000 of these cases in Nigeria, Ghana, and Cote d'Ivoire. Tuberculosis-HIV/AIDS co-infection and multidrug resistant TB are of increasing concerns. Over 30 per cent of TB patients in Burkina Faso and Cote d'Ivoire where also co-infected with HIV, while the primary resistance rate was highest in Cote d'Ivoire – 2.6 per cent, followed by Senegal –1.4 per cent (*WHO TB Global Report*, 2008). The data on the case detection

rate shows that only Benin has achieved the 70 per cent World Health Assembly (WHA) case detection target, while Benin, Gambia, and Sierra Leone have reached the 85 per cent treatment success target. Benin is the only ECOWAS country that has met the case detection and treatment success target (Table 3).

Major challenges in the region

ECOWAS countries are continuously confronted with daunting challenges. The urgent need to overcome these challenges will be of importance in enhancing progress towards achieving the MDGs. Some of the challenges are:

- Weak health systems from several perspectives, namely: (a) human resources in terms of number and quality; (b) sustainable funding mechanisms; (c) provision of quality essential medicines; (d) RH commodity security; e) provision of quality health services; and (f) optimal use of health services.
- Unfavourable legal framework or enabling regulation: certain policies or laws restricting access to services or public/private sector partnerships.
- Weak political will and commitment, especially the need to promote human rights-based approaches, contributions from other sectors, and increased investments in health.
- Inadequate coordination mechanisms between countries and partners in the region, leading to multiplicity and duplication of activities, and inefficient use of available resources.
- Inadequate data for effective monitoring, evaluation, and accountability mechanisms to obtain a clear image of changes (positive or negative) measured against the targeted indicators.
- Conflicts and political unrest further weaken the already overburdened national health system. About 50 per cent of countries of the region have experienced situations of instability during the last 15 years.

Regional initiatives to overcome challenges

Several initiatives have been undertaken or are in the process of being carried out in the West Africa region. These are as follows:

USAID has drawn up a health improvement regional strategy and established several regional projects: 'Action for West Africa Region – Reproductive Health and HIV/AIDS (AWARE-RH/AWARE-HIV)' from 2004 to 2008, and AWARE-2, 2009 to 2012. This project aims to promote best practices in RH/FP, maternal and child health, HIV/AIDS while supporting countries in establishing legal and regulatory frameworks conducive to their replication and raise funds for their implementation work.

- The West African Health Organisation (WAHO) is contributing to achieving the MDGs through the strategic orientation of ECOWAS health ministers concerning regional health priorities. WAHO organises the annual Assembly of ECOWAS Health Ministers and their experts on MDG-related themes, scaling up tried and tested cost-effective interventions for the benefit of women and children. It offers technical and financial support to countries, and particular emphasis is placed on developing human resources for health, including the harmonisation of curricula for basic training of various categories of health workers.
- The Global Alliance for Vaccines and Immunization (GAVI), Global Fund, WHO, and WAHO, focus their support towards strengthening health systems in countries.
- The Regional Prevention of Maternal Mortality Network (RPMM), is a regional project covering 20 countries, including eight in West Africa. It provides technical assistance and promotes sustainable and effective interventions to reduce maternal and neonatal mortality in sub-Sahara Africa.
- Kfw, UNFPA, and WAHO initiative for RH Commodity Security in the ECOWAS region. The initiative targets five countries (Benin, Burkina Faso, Ghana, Guinea Bissau and Niger) in the region over a three year period. Activities under this initiative would be scaled up to include the remaining ten countries.
- New global and African initiatives, notably International Health Partnership and related initiatives and the Harmonisation for Health in Africa (IHP+ and HHA) for the implementation of the Paris Declaration on the harmonisation of development aid.
- The Vision 2010 initiative reflects the involvement of First Ladies of West and Central Africa countries in achieving the health MDGs 4 and 5. It provides a framework for the mobilisation of resources and advocacy to reduce maternal and neonatal mortality.

Some existing best pratices

Below are some best practices recorded and promoted in the ECOWAS region.

- Nigeria (at Ibadan) has set up a successful school-based HIV/AIDS control programme. A six-month multimedia course using multiple media and during school hours, led to a significant improvement, from a statistical viewpoint, in knowledge and attitudes towards HIV/AIDS.
- Community competence approach to address malaria, replicated in Sierra Leone and the Gambia, has improved the capacity of local communities for the control of malaria.
- The Standard Days Method (or method of collars) is a method of natural family planning experimented by Georgetown University. This method has already been replicated in Benin, Mali, Burkina Faso, Nigeria and Ghana.
- Community-Integrated Management of Childhood Illnesses. A community-IMCI model in Senegal that includes acute management of respiratory infections and malaria at the community level by community health workers.

Conclusion

Despite some progress in several countries in the ECOWAS region, collectively the region is falling short in achieving the health MDG

targets. If the present trend continues, nearly all of the countries in the ECOWAS region are likely to miss these targets. There is a need to overcome the challenges, replicate best practices, and scale up efforts towards meeting the health MDG targets. ◆

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Chapter 4

The case for accelerating malaria care: edging closer to the MDGs

Jaya Banerji Medicines for Malaria Venture

The global community periodically sets itself Herculean tasks, optimistic in the belief that the world can be a better place and that battles against deadly diseases, poverty, malnutrition and illiteracy can and must be won. Some of these heroic challenges were enshrined in the Millennium Development Goals at the turn of the 21st century when 189 countries made a joint promise to steer the world into good health and away from illiteracy and poverty in 15 years.

One of the most obvious ways to pursue these goals was to directly address diseases of poverty, such as malaria, seeking to ease and eliminate the heavy burden it places on health systems in disease-endemic countries.

With the launch of the MDGs, countless new global health initiatives mushroomed on the landscape and work began in earnest to make the goals a reality. The world pulled out all the stops and political will was not in short supply. In 2000, world leaders drafted the Abuja declaration that promised to halve malaria cases and deaths by 2010. In its Global Malaria Action Plan (GMAP) of 2008, Roll Back Malaria, the voice of the malaria community, set the goals of universal coverage (with nets, diagnostics and treatments) by 2010 with more ambitious targets of a 75 per cent reduction in malaria cases and near zero malaria deaths by 2015. These targets, if met, would be key contributing factors to achieving MDGs 1, 4, 5, and 6, which aim to eradicate extreme poverty and hunger, reduce the under-5 mortality rate by two-thirds, improve maternal health, and reverse the incidence of malaria.

All countries, rich and poor, are keen to vanquish malaria, a disease that is both a cause and a consequence of poverty. The statistics continue to beat a sad litany of loss: malaria kills a child in Africa every 40 seconds – that is over 2,000 children lost every day. Of the 880,000 lives lost to malaria each year, 91 per cent are from Africa and 85 per cent are children under 5. Malaria does not just kill, it debilitates and impoverishes – jobs are lost, school days are lost, productivity is lost, and entire communities remain in its stranglehold. Malaria control consumes more than 40 per cent of national health budgets. In fact Africa loses over US\$12 billion in GDP to malaria each year and much more in compromised human potential.

In response to the rising tide of malaria deaths in the 1990s, the new millennium began with a number of ground-breaking initiatives. Several product development partnerships (PDPs) sprang up, with public and private support, to research and develop innovative drugs, diagnostics, insecticides and vaccines; the Bill and Melinda Gates Foundation entered the fray; the Global Fund was established as a new source of funding to assist countries battling with HIV/AIDS, TB and malaria; and WHO set up the Roll Back Malaria Partnership. Initially, external

financial support for malaria control was minimal then rose to around US\$300 million by 2003. By 2009 this figure had jumped to US\$1.6 billion. This dramatic increase was bolstered by a stream of new funds from 40 countries and more than 10 foundations, as well as the World Bank Malaria Booster Program (started in 2004) and the US President's Malaria Initiative (2006).

How far have we come?

At the end of the first decade and with just five years left to reach the MDG deadline, how close are we to achieving the goals? Although half the world's population is still at risk from malaria, fewer people are dying from the disease. Between 2000 and 2009, the *World Malaria Report* notes that the death toll – still horrifically high at over 800,000 deaths per year – is down almost 50 per cent. This considerable reduction has been the result of twice as many people owning and using long-lasting insecticide-treated bed-nets (LLINs), six times as many children with fever treated with artemisinin combination therapies (ACTs), four times as many homes protected by indoor residual spraying and an increase in the use of diagnostic testing.

Some countries in Africa, where the burden of malaria is the highest, have reported promising trends in reducing malaria deaths and cases. Zambia, among others such as Eritrea and Rwanda, has even reached beyond the 2010 target of a more than 50 per cent reduction in malaria mortality thanks to the use of LLINs. Last year, Malawi, Mozambique, Niger and Ethiopia saw a more than 40 per cent decrease in under-5 mortality, while Equatorial Guinea reported a 63 per cent reduction in all-cause mortality in children under 5 since 2004. However, many countries such as Uganda, Nigeria and DRC continue to battle the burden of malaria with less promising results so far. The malaria community would like to ensure that they win.

Miles to go...

As has been reported recently in RBM's Progress & Impact series, 'Malaria Funding and Resource Utilization', much has been achieved. But the road is long. Malaria continues to snatch the lives of children, robbing families and communities of their young and malaria-endemic



Send Your SMS-for-Life

The SMS-for-Life initiative is a direct response to address stock-outs of malaria interventions in Africa.

SMS-for-Life, a public-private project that harnesses everyday technology to improve access to essential malaria medicines, has recently been piloted in the Republic of Tanzania.

Combining mobile phones, SMS messages and electronic mapping technology, the initiative tracked weekly stocks of Artemisinin-based Combination Therapies (ACTs) and Quinine Injectables in health facilities in three districts, Lindi Rural, Ulanga and Kigoma, in a total of 155 public health facilities. The overall goal - to eliminate stock-outs, increase access to medicine and reduce the number of deaths from malaria.

The Government of Tanzania, Novartis, Vodafone and IBM teamed up to develop and implement the SMS-for-Life pilot project under the umbrella of the Roll Back Malaria Partnership.

How did it work? A weekly SMS was sent to all health facilities asking for their current stock of ACTs and RDTs. The responses were collected and stored centrally on a web site, generating regular reports for key health staff, including at the National Malaria Control Programme (NMCP) the Central Medical Stores Department (MSD) at



Zonal Medical Stores, Regional Medical Officers, District Medical Officers and District Pharmacists.

The SMS-for-Life pilot resulted in a three-fold increase in the availability of malaria treatments and eliminated stockouts completely in one district.

Simple solutions for malaria challenges will help implement the Global Malaria Action Plan (GMAP), the first comprehensive blueprint for global malaria control, elimination and eventual eradication. SMS-for-Life could have far-reaching benefits if applied across existing health systems to help eliminate stock-outs of all essential health commodities.

The SMS For Life - Tanzania Pilot Project Report 2010 is available on **www.rollbackmalaria.org**


countries of their future teachers, doctors, lawyers, and engineers. Given the incredible success in terms of the substantial reduction in morbidity and mortality in some countries by their use of effective health interventions, the other 100 countries should follow suit and ramp up use of preventive and treatment measures.

However, preventive strategies alone cannot guarantee complete protection against malaria, even in the case of full coverage. Hundreds of millions of malaria cases will continue to slip through the net in the coming years. Diagnosis and effective treatment are vital if lives are to be saved. ACTs, as the recommended first-line treatment for malaria, have already been adopted by most disease-endemic countries. We, the global malaria community must ensure this class of medicines is available, affordable and accessible for those who need it most. This ambition requires enormous amounts of financial and human resources in order to succeed. RBM has estimated this need.

In 2008, GMAP was adopted as a roadmap for malaria elimination by the malaria community. It quantified the amount of funds it would take to halve the malaria burden by 2010 and achieve the MDGs for malaria by 2015. It estimated annual programme implementation costs of US\$5 to 6 billion for the next 10 years (2010–2020), with some decline thereafter. Unfortunately, this massive influx of funds is nowhere in sight.

On a positive note, however, globally available external funding for malaria control (not taking into account national spend) has increased substantially since 2003 and almost US\$4.6 billion has been committed over the six years from 2003 to 2009, peaking last year at US\$1.6 billion (see chart below) – still only 25 per cent of the stated need. RBM reports that this external financing is being used well and in a timely manner: 85 per cent of it goes to Africa – the region hardest hit; it supports a good balance of prevention, treatment, systems strengthening and programme support; and is spent relatively effectively and quickly.

The availability of financing is only part of the solution. People living in malaria regions and those susceptible to malaria infection, such as young children and pregnant women, have to be motivated, informed and encouraged to adopt effective prevention and treatment practices. This takes sustained action and advocacy on the part of national malaria

programmes, civil society and the global community. Every opportunity is sought to send out the right messages. For instance, at the first ever World Cup to be held in Africa in 2010, the United Against Malaria campaign has persuaded FIFA to include, during the halftime entertainment, a video message about the importance of using bed nets and the need for donations to buy nets and malaria medication for the poorest and most vulnerable.

What are the obstacles along the way?

In 2007, the malaria community, including WHO and several PDPs, came out in support of Bill and Melinda Gates' rousing call to rid the world of malaria. This is a gigantic task and can only be achieved one step at a time with the

whole of the world's weight behind it. While the US\$1.6 billion committed in 2009 for the implementation of malaria control measures seems like a lot of money, but it will not go far enough. Although there has been significant progress, as outlined above, 70 per cent of African households still do not own or use insecticide treated bed-nets, 85 per cent of children with fever still do not receive treatment with ACTs (see graph below), 80 per cent of reported cases are still not tested for malaria, and over 863,000 people die each year.

And if this were not enough, implementation of malaria control programmes is hampered by under-resourced health systems, inadequate programme management capability and distribution systems, as well as poorly regulated markets that allow in sub-standard drugs, insecticides and diagnostics. The strategic challenges facing the international malaria community are manifold. We need to:

- continue the search for sustainable funding;
- keep malaria high on the global agenda;
- ensure harmonisation and alignment of the numerous malaria control initiatives;
- ensure community ownership of malaria programmes;
- work towards universal coverage of vector control interventions, ACT treatments and nets;
- prepare for the eventuality of ACT and insecticide resistance;
- and support the continued research and new tools.

The latter is of critical importance, because controlling malaria is not enough. GMAP proposes two courses of action to achieve the goals of malaria control and elimination:

- Scale-up and sustain the use of existing tools to control the burden of malaria.
- Reduce to zero the incidence of infection within countries to achieve elimination.

Underlying these is a critical third set of activities if control and elimination of malaria are to be achieved – the continued research and development (R&D) of new tools, a clear understanding of how best to use them, and informed policy changes. The move to eradicate malaria was tried once in the 1950s but was abandoned by the end of the



1960s. It failed due to the campaign's dependence on one drug (chloroquine) and one insecticide (DDT). We cannot allow this blinkered approach to lead us into failure again.

The R&D of new tools such as drugs and vaccines is essential in this war against the resistance-prone malaria parasite. It's not merely the question of man pitted against one deadly parasite, but against at least five of them. And each parasite has the amazing ability to mutate and become resistant to whatever deadly weapon we throw at it. It is widely recognised that we need as many new tools as we can develop until the war is won, tools that can attack the parasite from all sides. A handful of PDPs are working diligently to this end, developing new, potent vaccines, affordable rapid diagnostic tests, and innovative new medicines. For instance, Medicines for Malaria Venture (MMV), a notfor-profit foundation based in Geneva, is committed to the discovery, development and delivery of new, affordable and effective medicines to treat malaria and has developed the largest-ever pipeline of antimalarials in history. It considers medicines the tip of the spear in the fight against malaria and envisions a world in which these innovative medicines will cure and protect vulnerable and under-served populations at risk of malaria, helping to ultimately eradicate this terrible disease.

Given that some of the currently available medicines can adequately and effectively treat malaria it is often asked why new ones need to be developed at all – why do not we just ensure that the ones we have are made accessible to all? Is not R&D a drain on precious resources that could best be spent on assuring access to ACTs?

While it is true that access to essential life-saving medicines remains a burning issue, there are several sound reasons why we must continue to support the development of new medicines:

First and foremost, the need to counter the inevitable emergence of drug resistance in the parasite. The first signs of resistance to ACTs, the current gold standard for malaria treatment, are emerging near the Thai/Cambodian border – where other malaria drugs in the past also first started to fail. To address this imminent danger, the malaria community is making every possible effort to halt the marketing and use of oral artemisinin monotherapies, monitor drug efficacy in the field and contain the imminent spread of resistance. In addition, it is supporting, as best it can, the vital research needed to develop a range of medicines with varying mechanisms of action, which will fill the void in the treatment arsenal when resistance does take hold and ACTs lose their potency.

- Second, the need for drugs for specific patient groups. Malaria is a disease predominantly of children and pregnant women. These two vulnerable patient groups require safe medicines tailored to their needs.
- Third, the need for medicines for all species of malaria. Of the five species that infect humans, two can relapse, and there is currently no safe easily dosed medicine to combat this relapse.
- Finally, the need for drugs that can stop transmission of malaria. If malaria is to be defeated, medicines are needed that go a step beyond simple treatment and break the transmission cycle that passes the parasite from patient to patient. These reasons also apply to research into effective insecticides.

Well aware of these needs, MMV has reprioritised its R&D strategy away from cures for falciparum malaria alone. MMV's drug portfolio now has projects that address resistance issues, potentially cure vivax malaria and block transmission. Researchers are working against the clock to meet their milestones so that promising projects can emerge from the pipeline as effective new antimalarials, each seeking to contribute to the global goal to defeat malaria. However, this kind of research takes not only time, but money. GMAP has estimated that the R&D of new drugs, vaccines, diagnostics and insecticides will require around US\$750–900 million a year over and above the predicted US\$5–6 billion for implementation of malaria control programmes. (See chart below) At present the R&D of all health tools for malaria has only around half of this amount.

In addition to scientific research for new health tools, the malaria community recognises that the effort to eliminate malaria will only be effective if all vulnerable populations in disease-endemic countries have access to the products of this research. Ensuring that new breakthrough technologies and well-established interventions can have maximum effect means we also have to keep an eye on the last mile of delivery, where the most hard-pressed patients suffer the most.

A keen focus on access and delivery embraces the strengthening of health system management and delivery of diagnosis, treatment and





Giving Them Back Their Future

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

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

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

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

MMV's vision is a world in which innovative medicines will cure and protect the vulnerable and under-served populations at risk of malaria, and help to ultimately eradicate this terrible disease. www.mmv.org | info@mmv.org In early 2009, with Novartis, MMV launched its first product – a child-friendly antimalarial: Coartem[®] Dispersible. The registration of two more products is expected in 2011.

To ensure access to these new life-saving products MMV is helping to design and implement innovative strategies and is also helping to build an evidence base on the antimalarials' market in several African countries.

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

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



Defeating malaria together

prevention tools. It also must address issues of private sector affordability of malaria drugs, since vast numbers of patients access treatment primarily through the 'non-premium' private sector where prices are high. And lastly, it must remain open to new innovations to improve delivery of care, including the use of rural-based health workers selected from within their communities and home-based management of malaria programmes to diagnose and treat malaria and other childhood illnesses. This would empower communities - particularly mothers - and strengthen their ability to protect the lives of their children.

Dedicated to ensuring public health impact, MMV is committed to ensuring the acceptance, expansion, and documented impact of new products that it helps bring to market. It is building a credible evidence base through its work in Uganda to support arguments in favour of the Affordable Medicines Facility-malaria



(AMFm), which aims to dramatically reduce the price of ACTs.

How can the Commonwealth help?

The 54 countries of the Commonwealth work towards shared goals in democracy and development. Malaria weighs heavy on over half of these nations where the disease is endemic and whose economies are locked into a cycle of poverty in part due to the presence of malaria. Many of these countries have spent their own government resources or received external financial support from the global community for malaria control.

Of the Commonwealth countries untouched by the scourge of malaria, the United Kingdom stands out as a champion of the global effort to defeat this disease. The United Kingdom has been supporting several initiatives, NGOs and PDPs to this end via its Department for International Development, the All Party Parliamentary Group on Malaria and Neglected Tropical Diseases and the Wellcome Trust. It has also given generously to the UNITAID programme, another innovative financing tool that uses the money collected from an air-fare supplement to fund scaling up of access to treatments for HIV/AIDS, TB and malaria in low-income countries.

The target year for the MDGs is virtually here and efforts must be accelerated if we are to stand a chance of achieving the goals, especially with respect to malaria. The financial turbulence of 2009 rocked the funding for malaria for a while, but the malaria community is relying on donors to stay fast to their promise to support malaria control and elimination until the disease is wiped off the face of the earth.

The case for sustained investment in malaria control could not be clearer. Malaria is a killer disease but there is hope on the horizon. Success stories abound. It is evident that a rapid increase in funding has resulted in a simultaneous scale-up in distribution and use of today's available tools. Where scale-up has occurred, malaria cases and malaria-related deaths have fallen, as has all-cause child mortality, making this the quickest route to achieving MDG 4 in many countries, especially those in Africa.

In spite of proof that supporting malaria control and elimination has quick and gratifying wins in terms of young lives saved, the greatest risk to continued success is unstable financing. Countries and foundations,

public and private entities need to come forward to fully fund RBM's Global Malaria Action Plan as well as to fund R&D for development of new antimalarials and other health tools. No one sector alone can win the fight against malaria - all sectors have joined forces to keep the pressure up on the malaria parasite. Product Development Partnerships such as Medicines for Malaria Venture, Malaria Vaccine Initiative (MVI), Drugs for Neglected Diseases initiative (DNDi) and Innovative Vector Control Consortium (IVCC) must continue their vital work if we are to sustain the momentum and edge closer to achieving the MDGs.

All nations, especially those in the Commonwealth, should join the worldwide network of countries supporting the ultimate defeat of malaria. If malaria can be controlled with universal coverage of health tools by 2015 we will simultaneously achieve the MDGs. Commonwealth countries have the power to make the Commonwealth an instrument of Common Health.

Tuberculosis in the Commonwealth

Action (Advocacy to control TB internationally)

The Commonwealth accounts for 9 of the 22 high burden countries for TB. Some of the members are also among the world's most ardent supporters and funders of TB control programmes. The Global Plan to Stop TB (www.stoptb.org) and the MDG targets are both significantly impacted by progress made by Commonwealth members in their fight against TB. Many of these nations also face the additional challenges of multi-drug resistance and HIV AIDS, complicating national responses to TB.

TB control success story from India

TB has made remarkable progress in controlling Tuberculosis in the last decade. At the turn of the 21st century, each day saw 1,700 people dying of the disease every day in India. Smart planning, dollops of additional money borrowed from the World Bank and a willingness to respond to external criticism on the part of the Central TB Division of the Ministry of Health, Government of India saw what can only be correctly described as the largest scale up of any health programme anywhere in the world.

From less than 2,000 functional laboratories doing sputum microscopy to diagnose TB then, the effort resulted in 12,500 laboratories across the country, all quality assured and linked up to a country wide information network that began telling with minimal lag just exactly what was happening to the Tuberculosis control effort across this vast nation. In the process, the death rate began plummeting to just over 900 a day, where it stands right now. Spectacular achievement by any measure, and no accolades can be sufficient to reward the untiring efforts of individuals who put all into this effort.



From less than 2,000 functional labs doing sputum microscopy to diagnose TB then, the effort resulted in 12,500 labs across the country



The implications of passing on drug resistance in the community are scary, both for the infected individuals and also for the national effort to combat TB

The biggest challenge facing TB control

If the emergence of drug resistance to the life saving TB drugs is not managed now, the gains mades so far will be reversed. The problem with TB treatment is that it is long term – 6 months long. And people begin feeling well in the first month itself, leaving them with the temptation to stop getting their regular drug doses. Many do drop out, and then feeling sick later, come back to start treatment again. Repeated stop start treatments and dropping out altogether creates drug resisitance, which costs roughly 200 times more to treat than a regular course of treatment. Also drug resistant TB gets transmitted much the same way as regular TB: each infectious patient can pass it on to roughly 15 people over the course of a year.

The implications of passing on drug resistance in the community are scary, both for the infected individuals and also for the national effort to combat TB. The latest World Health Organization report on drug resistant TB released this week in India, as home to a quarter of the worlds multi-drug resistant (MDR) TB caseload. India, is thought to have 100,000 new cases of MDR TB annually. To put it into perspective, India treated around 1.6 million people with regular TB drugs in 2009 alone.

Multi-drug resistance should not be an unanticipated reality in any antibiotic based disease control programme. However, prepareedness for MDR TB is woefully inadequate. Diagnosing MDR TB annually requires labs that are equipped with more than microscopes. The 12,500 labs that were set up in India over the last decade can at best tell whether a person has active TB of the lungs, and nothing more about the susceptibility of th infection to regular drugs. Simply putting a person through the first line of treatment may not only be delaying a proper diagnosis by six months, but also amplifying the resistance of the TB bacilli, both in the individual and in the community.

Opportunities to make the fight against TB effective

- Fortunately, the diagnosis of MDR TB does not need to be stuck in the last century (or earlier) and paralyse our response. The world of high tech science allows for DNA and gene based diagnostic processes that are remarkable, both in the ability to accurately diagnose resistance, but also in the speed with which the reports can come through. State of the art diagnostic techniques from the while the new DNA and gene-based tests turn them out in less than two hours. The new technology also makes it easy to diagnose TB in people with HIV, a group in whom regular microscopy based tests have been ineffective. While the best of these machines are exquisitely simple to operate, the capital costs associated with installing these machines as a replacement to the microscopes are enormous at current prices. The alternative to not adopting the new diagnostics is to continue to wage a losing battle with TB something we came into the new century thinking we had finally a handle on.
- The Commonwealth has a research and development capacity that has yet to be fully unleashed against battling diseases. Tuberculosis presents a ripe target for the next generation of Commonwealth researchers to train their formidable talents on. Better collaboration among the research and operational centres within the

ACTION (Advocacy to Control Tuberculosis Internationally) is an international partnership of advocates working to mobilise resources to treat and prevent the spread of tuberculosis (TB), a global disease that kills one person every 20 seconds. ACTION's mission is to build support for increased resources for effective TB control, especially among key policy-makers and other opinion leaders in both high TB burden countries and donor countries. With effective policy advocacy and greater political will, rapid progress can be made against the global TB epidemic.

Please visit www.action.org for more details about this partnership.

Additional resources from the Global Fund can help scale up the diagnostic and treatment capabilities in all the low and middle income countries of the commonwealth. A well funded Global Fund to fight AIDS, TB and Malaria can continue to provide much needed resources for the fight against TB

Commonwealth needs to be pursued.

- Financing the fight against TB has been greatly assisted by the Global Fund to Fight AIDS, TB and Malaria. The additional resources from the Global Fund can help scale up the diagnostic and treatment capabilities in all the low- and mid-income countries of the commonwealth. A well funded Global Fund to fight AIDS, TB and Malaria can continue to provide much needed resources for the fight against TB.
- Make TB control a high political priority: increasing the visibility of available diagnostic and treatment facilities, and providing political support to the fight against this disease will help reduce the stigma around this age old disease.
- ▶ Bring the life saving TB treatments closer to the people living with HIV AIDS! When TB and HIV programmes operate in separate silos, people die. Effective, coordinated TB and HIV programmes can reduce mortality among people living with HIV AIDS. ◆



Innovation to accelerate action in tackling tuberculosis

Mike Mandelbaum Chief Executive, TB Alert

An important aspect of MDG 6 is action on reducing the scourge of tuberculosis (TB). The case studies below highlight two of the practical ways the disease is being confronted. The first case study from India looks at integrating TB care into local structures and civil society organisations. The second case study looks at how three non-profit partnerships are trying to research new tools – vaccines and tests – to update the products that exist at the moment.

Andhra Pradesh, on India's south-eastern coast, is India's fourth largest state by area and fifth largest by population. The state capital of Hyderabad is increasingly becoming a major IT hub, and the city also has strong biotechnology and pharmaceutical industries.

However Andhra Pradesh faces significant health challenges, including TB prevalence of 312 cases per 100,000 population, against a national average of 283. And while some 5 per cent of TB patients in India are co-infected with HIV, in some areas of Andhra Pradesh the figure is as high as 30 per cent.

In 2008, the UK Department for International Development (DfID), through its Civil Society Challenge Fund, began funding an innovative project to reach 4.5 million people and tackle TB and other health issues in the six southern districts of the state. Through TB Alert, a UK-based NGO, and TB Alert India, its sister organisation based in Hyderabad, a network of civil society organisations began an intensive programme of work to empower people to tackle priority health issues facing their communities and improve their access to state-funded medical services. As DfID's 2005 practice paper on 'The Challenge of TB and Malaria Control' says 'Health promotion and behaviour change communication activities are a cornerstone in TB case-finding and treatment. No matter how good diagnostic services, unless people come forward to use them TB detection rates will remain low.'

The central principle of the approach is to integrate health issues into the work of civil society organisations that have strong and established relationships with local communities. The groundwork was laid in 2004 when TB Alert India teamed up with the Rural Institute for Social Education (RISE), a like-minded NGO based at Tirupati in the south of Andhra Pradesh. A state level workshop brought together government and NGOs, and led to the formation of a coalition of 57 NGOs. The Coalition members pledged to include TB awareness messages in their outreach work, and subsequently broadened their remit to include HIV, malaria, filaria and leprosy.

These are organisations that focus primarily on issues including land appropriation, poverty reduction, dalit empowerment, forestry

management and food security. A lack of funding, capacity and skills had prevented them addressing the health needs of their communities, so this is exactly what is now provided to 36 of the organisations through the Andhra Pradesh Community Health Interventions Project (APCHIP).

Each NGO employs either one or two Community Health Workers (CHWs), each of whom will reach about 100,000 people over the five years of the project. The most intensive activities are delivered in communities more than 5km from the nearest health facility, as experience showed such communities access fewer services. These are termed 'Community Strengthening Sites' and comprise 70 per cent of the population covered. The CHWs assist the community to set up Health Support Groups as a village level mechanism for addressing health and other related community needs. Over 350 such groups were established in the first year of the project, identifying issues such as blocked draining channels resulting in water stagnancy, or a lack of properly treated mosquito nets. The groups then either find and implement a solution themselves, or liaise with the relevant local authorities.

Alongside this, community health awareness activities take place, including school health education programmes, rallies, exhibitions, health camps and street theatre performances. For communities within 5km of a facility (Community Awareness Sites), the main focus of the project is on awareness rather than Health Support Group formation.

The awareness activities help people recognise signs of disease, and make them aware that treatment for TB and other conditions is free from government clinics. Most people still go to a private health provider in the first instance, which often delays diagnosis, potentially worsens their condition, and is an unnecessary burden on their families' low income levels. The project therefore also includes educational work for private health providers themselves, so they refer patients to state clinics, and appropriate ways are found to involve private providers in treatment plans, for example through administering 'Directly Observed Treatment' for TB.

Initial low levels of cooperation from district level officials, who

believed NGO intervention would lead to extra workload, slowly changed into effective participation as they noticed how the project was actively addressing the needs of the community. Now, all the implementing NGOs have MoUs with district TB programmes and are developing working agreements with other district health programmes. District officials routinely invite the NGOs to help make collective action plans for the district and the officials have become engaged in critically reviewing the project's achievements. To ensure that the full breadth of community decision-makers understand and support the work, in the first year and a half, 2,500 community leaders, stakeholders and influencers were sensitised to the project's purpose and strategy.

In terms of patient outcomes, during 2009 the Health Support Groups, CHWs and other project structures resulted in 6,338 people being referred for TB testing, of whom 621 were put on TB treatment; this comprised 14 per cent of the total of caseloads registered at public health facilities during the period. The Health Support Groups also provided a mechanism for following up and supporting patients through the difficult six month course of TB treatment.

The local project structures are held together in each of the six districts by a District Lead Agency that employs a dedicated district coordinator who acts as a bridge between the central project coordination unit and the implementing NGOs, and leads policy discussions with district level health managers.

Research into new tools – challenges in TB management

The existing arsenal to combat TB is woefully outdated and unable to keep pace with the epidemic. TB will never be defeated without new and more effective tools: simpler, faster drug regimens that treat all forms of TB; rapid, more accurate diagnostic tools to quickly detect TB; and a vaccine that will be effective in preventing TB in people of all ages.

TB is challenging to diagnose even with sophisticated technology available in developed countries, and the situation in low-resource settings – where most TB infections occur – is even more problematic. The most commonly used diagnostic method, sputum smear microscopy, was developed over 100 years ago and is only capable of detecting half of new TB infections. It is not able to determine resistance to drug treatment. Collection and processing of samples is challenging. As a result, accurate diagnosis is delayed, which in turn means that patients do not access treatment until they are even sicker and have continued to infect those around them.

The currently used drug regimen was invented over 40 years ago and a combination of four medications must be taken for six to nine months. Patient compliance with this lengthy course of treatment can be a challenge. Erratic or inconsistent treatment breeds drug-resistant strains that increasingly defy the power of current medicines to control the disease. The treatment for drug-resistant TB is significantly more expensive, takes longer (two years or longer) and its side effects are severe.

The TB vaccine currently in use throughout the world, known as BCG, was invented almost 90 years ago. It provides some protection against severe forms of TB in children, but is unreliable against pulmonary TB, which accounts for most of the worldwide disease burden.

All of these existing methods also are of limited effectiveness in the presence of HIV. Sputum-smear microscopy, which already diagnoses only half of TB cases, misses 80 per cent in patients infected with HIV, because they produce fewer white blood cells and thus the sample is less reactive. Current drug treatment interacts problematically with

Box 1: The Impact of TB on women and children

Tuberculosis has a major impact on maternal and child health. TB is a leading cause of death in women, particularly in low and middle-income countries. Once infected, women of reproductive age are more susceptible to developing TB disease than men of the same age. Active TB disease hampers a mother's ability to care for her family and robs hundreds of thousands of children of their mothers yearly. Children are usually infected by those around them – including their parents and caregivers – and are more likely than adults to develop active TB because their immune systems are less developed.

some antiretroviral drugs. The World Health Organization recommends against the use of the existing vaccine in children infected with HIV.

New drugs, diagnostics and vaccines are urgently needed. The good news is that research is underway around the world to develop safer, more effective, and easily affordable new tools to tackle TB. These include a shorter, less toxic, and more effective drug treatment regimen that would work against drug-resistant TB, be compatible with antiretrovirals, and improve treatment of latent TB; rapid, accurate and affordable TB tests and point-of-care diagnostics to more efficiently detect TB and drug-resistant forms of TB; and new vaccines to protect against all strains of TB, including MDR and XDR, and safe for use in people of all ages, including those infected with HIV.

Research is currently underway in many Commonwealth countries in Africa, Asia, Europe and North America, and several Commonwealth governments have provided funding to support these efforts. However, tuberculosis research remains significantly underfunded and more investment is greatly needed in order to accelerate the development of these new tools. Three non-profit research organisations are taking the lead in developing new tools to fight TB. Harnessing the collective resources of government, industry, academics, and philanthropies, the Foundation for Innovative New Diagnostics (FIND), the Global Alliance for TB Drug Development (TB Alliance) and the Aeras Global TB Vaccine Foundation have created the largest pipeline of new TB drugs, diagnostics and vaccines in history. ◆

Mike Mandelbaum, is Chief Executive of TB Alert. TB Alert is based in Brighton, United Kingdom, and works towards the control and ultimate eradication of TB by increasing access to effective treatment for all. It develops and funds projects in India and southern Africa; is the lead partner of the United Kingdom's Department of Health in raising awareness of TB among affected communities and advocates for greater global priority for resources to combat TB. TB Alert is a member of the International Union Against TB and Lung Diseases, the Lilly MDR-TB Partnership, the UK Coalition to Stop TB, Action for Global Health and the Stop TB Partnership.

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

article by Patrizia Carlevaro

Head, International Aid Unit Eli Lilly and Company

The Lilly MDR-TB Partnership is a public-private initiative that encompasses global health and relief organisations, academic institutions and private companies and is led by Eli Lilly and Company. Its mission is to address the expanding crisis of MDR-TB.

A multi-pronged approach to MDR-TB

Created in 2003 to address the growing challenge of MDR-TB, the Partnership has adopted a 360-degree approach, and mobilises over 20 global healthcare partners on five continents to share resources and knowledge to confront TB and MDR-TB.

To drive the Partnership, Lilly is contributing US\$120 million in cash, medicines, advocacy tools and technology to focus global resources on prevention, diagnosis and treatment of patients with MDR-TB; and an additional US\$15 million to the Lilly TB Drug Discovery Initiative to

accelerate the discovery of new drugs to treat TB.

Empowering local communities

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



Figure 1: Seven-year old Manisha, diagnosed with TB in 2008, doing her second grade homework. After nearly seven months of treatment through a community-based programme, she was cured of TB in January 2009. The Lilly MDR-TB Partnership strives to improve care for the world's most vulnerable people, like little Manisha. Photo: Subhash Sharma

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

A global approach for global results

While community and country-based activities empower local populations to fight MDR-TB, global change requires a global view. With this in mind, the Partnership works with policy-makers to raise awareness about the toll that TB takes on the global population and encourages new initiatives that curb the spread of MDR-TB. Additionally, the Partnership promotes adherence to the World Health Organization's standards on TB treatment and supports national TB programmes that have been developed using these standards.

Sustainable access to medicines

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

access to medicines at affordable prices for MDR-TB patients, while supporting local economies and ensuring high-quality manufacturing.

New Drug Discovery Initiative

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

A Public-Private Partnership to help those in need

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



Figure 2: It is 6am, and this young boy is about to go to school. At the time this photo was taken, his mother had TB meningitis, and was near the end of her treatment. After this child had left for school, his mother would go to the local clinic to receive her medication. She would arrive at the clinic by 7am to join a queue outside the hospital; often the queue stretched the entire length of the hospital. It has been a long road to health, but his mother has achieved it. Photo: Damien Schumann

How the A-Plan has reduced PMTCT in South Africa

Department of Health, South Africa

South Africa, with its Accelerated Plan for Prevention of Mother-to-Child Transmission (or A-Plan), has proved that dramatic improvements in curbing HIV infection in children can be made in a short space of time. The A-Plan, involving a partnership between government, health workers and NGOs, uses the two-pronged approach of quality improvements and social mobilisation to achieve substantial improvements to the management of the prevention of mother-to-child (PMTCT) programme, and promote the uptake of PMTCT services by pregnant women through addressing the community and social barriers to the programme. The six-month prototype phase of the 18-month A-Plan has yielded strong results, and lessons that are adaptable and can be taken to scale.



n May 2009 a novel partnership involving the National Department of Health, South African National AIDS Council, health district teams and several NGO partners launched the first phase of the Accelerated Plan for PMTCT (or A-Plan), a rapid health systems intervention to improve mother-to-child transmission (MTCT) outcomes.

The A-Plan is a response to the substantial contribution of the HIV epidemic to infant and early childhood mortality and aims to reduce MTCT to below 5 per cent by 2011 through strengthening the PMTCT programme by combining quality improvements (QI) in service delivery with demand creation through social and community mobilisation.

The objectives of the A-Plan included primary prevention of HIV and unwanted pregnancies; improving early antenatal bookings; improving the uptake of HIV and CD4 count testing rates among pregnant women; improving the uptake of dual antiretroviral therapy for women and infants; improving the initiation of eligible pregnant women onto antiretroviral therapy (HAART); increasing HIV testing of infants around 6 weeks of age; increasing safe infant feeding practices by HIV-positive women; decreasing HIV infection among HIV-exposed infants; and increasing antiretroviral therapy and care for HIV-positive infants.

Ql interventions included strengthening districts' management of the PMTCT programme, improving care at facility level for HIV-infected pregnant women, and improving data collection. These had the aims of generating a new sense of energy and commitment at all levels to PMTCT, the identification of high-impact, high-value practices, the spread of best practices, and the building of capacity for continuous Ql.

Social mobilisation aimed to promote the uptake of PMTCT services by pregnant women through addressing the community and social barriers to PMTCT.

A key strategy included community dialogues to mobilise local communities and their leaders, with themes around the marketing of available services, the promotion of primary HIV intervention, prevention of unwanted pregnancies (including teen pregnancy), and mobilising greater involvement by men in pregnancy and PMTCT.

Other social mobilisation strategies included training a cadre of community healthcare workers who provided in-clinic information and

education sessions with individual follow up, and mobilising community-based media through a 13-part drama series and talk show on primary prevention and PMTCT.

The prototype phase, between May and November 2009, initially involved 98 facilities in five priority sub-districts, but this had expanded to 161 facilities in nine sub-districts by the end of this phase.

Gains made in the May-November 2009 period included a marked increased uptake of CD4 testing among HIV-positive women from 88% to 98% across all 161 facilities, and positive women initiating HAART increased from 22% to 55% during the six-month implementation period of the Accelerated PMTCT strategy.

The HIV-positive rate at six weeks among babies exposed to HIV dropped from 10 per cent to 4 per cent in the same period in some districts, meeting the National Strategic Plan target in these districts. HIV testing, infants receiving dual therapy, and counselling on infant feeding options were reported at high levels throughout the project (97 per cent, 100%, and 100% respectively).

The achievements of the A-Plan are largely ascribed to the political and operational support from national, provincial and district Departments of Health. A range of NGO partners willingly signed on to an agreed upon methodology to support the districts' efforts to improve PMTCT, and front-line healthcare workers enthusiastically participated in the activities that improved performance.

The A-Plan provides a template for how to improve the quality of PMTCT clinical services, widely and rapidly – and provides a useful model to rapidly respond to other healthcare challenges, including HIV, TB, chronic disease, injuries and violence.

Not only has the A-Plan drummed up demand for PMTCT services and provided the capacity to meet that demand, and provided government with a 'mechanism and method' to change the health system and achieve big targets, it has also engendered a new sense of energy and commitment in role-players, says Dr Yogan Pillay, the Deputy Director-General for Strategic Health in the South Africa National Department of Health, who is the project champion/leader'.

For more information see www.doh.gov.za

Progess towards meeting the health MDGs in the ECSA region

article by Dr Helen Lugina

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The East, Central and Southern African Health Community is an intergovernmental organisation composed of 10 member states who are all signatory to the MDGs. Despite notable efforts, evidence shows that the member states are not on track to meet the MDG targets by 2015 especially the health-related MDGs 4, 5 and 6. In 2007 underfive mortality ranged from 16 per 1,000 in Seychelles, to 91 per 1,000 in Swaziland and 170 per 1,000 in Zambia. Some member states like Malawi and Uganda have managed to decrease infant mortality but for most countries the indicator has worsened over the years.

Maternal mortality remains a huge challenge averaging 693 per 100,000 live births in the region. By 2007, Malawi had the highest MMR in the region at 1,100 per 100,000 live births. HIV/AIDS continues to pose a major threat to the survival of people in the region. Swaziland has the highest HIV prevalence amongst 15–49 year olds at 26.1 per cent followed by Lesotho at 23.2 per cent. Uganda has on the other hand, managed to reduce HIV prevalence substantially over the years. Positive strides have also been made in controlling TB and malaria even though the emergence of MDR and XDR TB poses a new threat.

Some of the best practices to be noted from the region include several programmes to strengthen health systems (leadership for change, leadership and development, human resources for health strategies), strengthening educational practice and excellence and improving access to quality care. The key issues and challenges include poverty, hunger and malnutrition, lack of financial and human resources and weak monitoring and evaluation systems.

In its quest to meet the MDGs, ECSA-HC has recently embarked on several projects which are the Mother, Neonate and Child Alive 2015 (MNCA-2015), Money Well Spent (funded by the TIDES Foundation) and the World Bank funded Laboratory Network Project.

he East, Central and South African-Health Community (ECSA-HC) is composed of 10 member states, namely Kenya, Lesotho, Malawi, Mauritius, Seychelles, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. ECSA-HC has a population of over 220 million which accounts for nearly one third of the population in sub-Saharan Africa.

All ECSA-HC member states are signatory to the Millennium Declaration 2000 whereby Governments made a commitment to meet set targets under agreed Millennium Development Goals (MDGs) by 2015. MDG 4 (reducing child mortality), MDG 5 (reducing maternal mortality) and MDG 6 (combating HIV/AIDS, TB, Malaria and other infectious diseases) focus specifically on improvements in the health status of the population of the ECSA Health Community. The quest to meet the MDG targets has, to a large extent, influenced member states' design and implementation of policies, strategies and programmes in the health sector, in particular, and for socio-economic development and transformation, in general.

Notwithstanding the declarations and efforts, almost eight years down the line, evidence shows that most countries will not achieve the 2015 MDG targets.

Progress towards attainment of health MDGs in the ECSA region

MDG 4: Reducing child mortality

MDG 4 calls upon member states to reduce childhood deaths by two

thirds by 2015. An average annual rate of progress of 4.4 per cent is required to meet this goal (UNICEF 2008). Presently, progress in the ECSA region is off-track for countries to meet the 2015 target.

Table 1 above shows progress made between 1990 (base year) and 2007. With the exception of Kenya and Zambia, all member states experienced some reduction in the under-five mortality rate. However, all member states are still far off from achieving the set targets in 2015.

There have also been some notable improvements in the infant mortality rate between 1990 and 2007. In Malawi the IMR decreased from 124 per 1,000 live births in 1990 to 71 per 1,000 live births in 2007 whilst in Uganda it decreased from 106 per 1,000 live births in 1990 to 82 per 1,000 live births in 2007 (UN MDG Database, 2009). For other member states including Kenya and Zambia the IMR regressed from 64 per 1,000 live births in 1990 to 80 per 1,000 live births in 2007 and 99 per 1,000 live births in 1990 to 103 per 1,000 live births in 2007, respectively. There still remains much ground to be covered by member states in order to meet the MDG targets by 2015.

Notably though, counties in the region have recorded an impressive measles immunisation coverage of over 80 per cent on average and more effort is required in progressively addressing the other known determinants of child mortality.

MDG 5: Reducing maternal mortality

The maternal mortality rate (MMR) in the ECSA region is relatively high at an average of 693 per 100,000 and as such the region is off-track

Table 1: MDG 4: Under-5 mortality rate in the ECSA region

Country	1990	2007	MDG Target 2015
Kenya	97	121	33
Lesotho	102	84	35
Malawi	209	110	71
Mauritius	23	17	8
Seychelles	17	16	6
Swaziland	96	91	33
Uganda	175	131	60
Tanzania	157	116	53
Zambia	163	170	55
Zimbabwe	95	90	32

Source: United Nations MDG Database, 2009





in meeting the required target by 2015. In 2007, it was estimated that the MMR ranged from 15 per 100,000 live births in Mauritius to 1,100 per 100,000 live births in Malawi (World Health Statistics, 2009).

Lesotho had the second highest MMR at 960 per 100,000 live births followed by Tanzania at 950 per 100,000 live births and Zimbabwe at 880 per 100,000 live births. The MMR in Zambia closely matched Zimbabwe's at 830 per 100,000 live births whilst in Uganda and Kenya it was estimated to be 550 per 100,000 live births and 560 per

100,000 live births, respectively. Swaziland had the second lowest MMR at 390 per 100,000 live births after Mauritius. Data was not available for Seychelles.

The average skilled birth attendance in the region (comprising one of the key determinants of MMR) is estimated to be 53 per cent, comparatively higher than the sub-Saharan estimate of 44 per cent (MDG baseline Indicators, 2007) but still lower than other regions of the world. The target is that 90 per cent of births should be attended by a skilled attendant by 2015 in the regions where they are not routinely available. This is a tough challenge, since progress has been slow over the past decade with an average annual increase in care coverage at delivery of less

than 1 per cent. This is largely due to shortages of skilled birth attendants.

Figure 1 shows that with the exception of Mauritius, none of the member states have attained the target of 90 per cent skilled birth attendance. Four countries (Kenya, Tanzania, Uganda and Zambia) are still below 50 per cent whilst Lesotho, Malawi and Zimbabwe are above 50 per cent but less than 70 per cent.

MDG 6 (Combating HIV/AIDS, TB, Malaria and other infectious diseases)

On average, the HIV prevalence amongst 15–49 year olds increased from 5.6 per cent in 1990 to 12.6 per cent in 2007. UNAIDS estimates there are 22.4 million adults and children living with HIV at the end of 2008 in the ECSA region and the number of infected children continues

to grow. Children also constitute 91 per cent of new HIV infections. Twenty-five million children die of HIV/AIDS annually, and comprise 67 per cent of people living with HIV/AIDS in ECSA member states. About 1.8 million children under 15 years of age are living with HIV/AIDS in sub-Saharan Africa and in 2008, more than 14.1 million children were orphaned due to HIV/AIDS in the ECSA region.

Figure 2 shows the HIV prevalence amongst 15–49 year olds between 1990 and 2007.

Evidently, for all member states, with the exception of Uganda, the HIV prevalence has been increasing over the years. Lesotho and Swaziland experienced exponential increases from 0.8 per cent in 1990 to 23.2 per cent in 2007 and 0.9 per cent in 1990 and 26.1 per cent in 2007, respectively. Uganda managed to decrease HIV prevalence from 13.7 per cent in 1990 to 5.4 per cent in 2007.

According to the UN MDG report (2008), the 'MDG target for reducing incidence of TB was met globally in 2004',

which includes countries in the region. However, the TB prevalence remains relatively high in some member states whereby in 2007 it was estimated to be 811.8 per 100,000 in Swaziland and 713.9 per 100,000 in Zimbabwe (UN MDG (2008) Database). Actually, with the exception of Malawi, Mauritius, Seychelles and Zambia, TB prevalence increased between 1990 and 2007. Figure 3 reflects progress made by member states with regard to TB prevalence between 1990 and 2007.

Member states have recorded notable progress with regard to





was recorded to have made impact on reduction of maternal mortality (Mbaruku & Bergstrom.1995)

Strengthening human resources for health

Most of the ECSA countries have developed human resources for health strategies which focus on motivation and retention. Emergency hiring and facilitation of recruitment for rural areas has been tried and shows a significant impact. Countries are at various stages of establishing human resources for health information systems (HRIS) but some report the usefulness of HRIS in workforce planning so that issues of supply and demand are congruent with country needs. The evaluation of the Capacity Project (HRIS) work in Uganda,

treatment under DOTS. This has ranged from 43 per cent in Swaziland to 92 per cent in Mauritius. In Kenya, Uganda and Zambia the success rate has been estimated to be 85 per cent. However, the emergence of MDR-TB and XDR-TB poses a challenge to countries in sustaining this achievement.

In 2006, Uganda had the highest malaria mortality rate at 145 per 100,000 population, followed by Zambia at 121 per 100,000 population and Tanzania at 98 per 100,000 population. In Kenya and Lesotho the malaria mortality rate was estimated to be 74 per 100,000 population and 95 per 100,000 population, respectively. Zimbabwe had the lowest rate at 10 per 100,000 population, whilst in Swaziland even though malaria exists in some parts of the country, the mortality rate is negligible. Seychelles, Mauritius and Lesotho are not endemic for malaria.

Examples of good practice in the ECSA region: health systems strengthening

Leadership for Change

The issue of health systems strengthening: emphasising all the building blocks of a health system has been discussed in various forums in ECSA and it has been recognised that paying attention to leadership and management and improving workforce performance are important.

To respond to leadership and management challenges among healthcare providers, in collaboration with the International Council of Nursing (ICN), the East, Central and Southern African College of Nursing (ECSACON), embarked on a 'Leadership for Change' programme (1998-2001). The focus of the programme was to assist nursing to contribute effectively to the changing healthcare systems in the region. In Kenya, the Ministry of Medical Services and the Ministry of Public Health and Sanitation conducted an assessment aimed at guiding leadership and management capacity strengthening in the health sector in 2008. As a result of the assessment, the Ministries of Health in Kenya gained the data they needed to make the case for strengthened leadership and management in the health sector in a systematic way. Although not recent, the Tanzania Kigoma leadership and management intervention

Swaziland and Rwanda with the goal of assessing which factors influence the quality, use and sustainability of the approach showed that HRIS data was commonly used for strengthening HR leadership, policy, advocacy, strategic planning and research (McQuide et al, 2008).

Leadership Development Programme

Swaziland and Lesotho have for the past three years, with support from the Southern African Human Capacity Development (SAHCD) Coalition, implemented a Leadership Development Programme (LDP) targeting health facilities across different levels of the health system. The programme has so far yielded positive results leading to improvement in the management of health facilities and quality of services provided.

In Swaziland, 20 health facilities recently presented their results in an LDP Fair. The project themes for the facilities were: long waiting times at out-patient departments (OPD); waste segregation management; complete and accurate documentation of clients' information in folders in a selected ward; taking of vital signs on children under five years old (temperature, weight and height) and scaling up testing of HIV-exposed infants using dried blood spot test. The facilities demonstrated improvement across all the themes. One of the health facilities that has demonstrated a remarkable improvement is the Raleigh Fitkin Memorial Hospital which in 2009 received an recognition award from Management Health Sciences (MSH).

Public-Private Partnerships for health

A number of member states have made advances in forming partnerships with the private sector for the financing and provision of healthcare services. Of particular note, is the Lesotho case whereby in 2008, the Ministry of Finance and Development Planning (MOFDP) and Ministry of Health and Social Welfare (MOHSW) formally entered into a Public Private Investment Partnership (PPIP) with a consortium of local and international healthcare providers to construct a new referral hospital and adjacent gateway clinic, and to renovate three strategically chosen urban filter clinics.

Construction of the new hospital commenced in March 2009. There are three main components of the PPIP: (1) design and construct a new 425-bed public hospital and adjacent gateway clinic; (2) renovate three strategically chosen urban filter clinics and (3) manage all clinical care and non-clinical services in these public facilities for 18 years.

It is envisaged that this venture will strengthen health systems by improving quality of care and the referral process.

Strengthening educational practice and excellence

ECSA Health Community fosters the work of Colleges 'without walls'. For example, apart from enhancing professional excellence, COSECSA¹ provides for alternative educational methodologies that allow students to pursue courses on site, while continuing with work. Recently, in collaboration with Commonwealth Secretariat, University of Central Lanchashire and higher education institutions in the region, ECSACON^{II} developed a prototype regional programme for midwifery tutors that can be adapted by training institutions in the region. There are other efforts to establish centres of excellence in specific subject areas, for example, the capacity project is working with the government of Kenya to establish a centre of excellence in reproductive health and family planning. The aim of these centres is to provide for harmonisation and access to knowledge.

Improving access to quality care

Various ways of improving access to care are being explored, for example, the provision of injectable contraceptives by community-based health workers (CHWs) was demonstrated to be safe and effective in Bangladesh and in Latin America as early as the 1970s. Research by FHI and others in Uganda and Madagascar between 2004 and 2008 further demonstrated that a properly trained cadre of CHWs can safely provide injectable contraceptives with high rates of acceptability and satisfaction among the clients. Other countries in the region are either conducting dialogue, developing strategies to increase access by various ways including healthcare financing, use of community health workers in general and through task shifting.

Other aspects of improving care that have been explored in the region are implementation or scale up of high impact interventions. Essential Nutrition Actions (ENA) is a high impact intervention that the ECSA member states, working through the support of the Secretariat have embarked on. The Essential Nutrition Actions Framework comprises an integrated and preventative package of seven nutrition actions covering infant and young child feeding, micronutrients and women's nutrition, which if countries scaled up rigorously using multiple programme entry points, has a potential to result in major benefits for under five children and women survival, well-being and development.

Food fortification, another high impact intervention is one of the strategies that ECSA-HC has embarked on to support member countries to develop policies and strategies to ensure food fortification is done based on agreed upon standards.

In the area of maternal care, member states have been helped to identify strategies of implementing or scaling up high impact interventions that include active management of third stage of labour (AMTSL) to prevent bleeding during childbirth. The concept of focused antenatal care (FANC) has been advocated for and some countries are using the methodology that ensures maximum health outcomes during pregnancy.

to health (i.e MDGs 4, 5 and 6), there is an intricate relationship between these goals and the rest of the goals. The achievement of an improved health status is also very much dependent on the eradication of poverty and extreme hunger, achieving universal primary education, promoting gender equality, ensuring environmental sustainability and developing global partnerships for development. In essence, the other non-health MDGs fall into the category of social determinants of health.

Poverty levels still remain an impediment to achieving the desirable welfare state for the 190 million people in the ECSA region. On average, 50 per cent of the people within the region still live beyond the poverty line of US\$1 dollar a day. However, countries like Kenya, Uganda, and Tanzania have recorded an observable decline in the poverty rate over the last few years. The link between poverty and health can hardly be ignored. Poverty is widely recognised as both a consequence and a cause of ill-health. Analysis of health data from poor and vulnerable population groups invariably reveals higher-than-average instances of disease, premature mortality, maternal mortality, or HIV/AIDS infection rates (WHO, 2005). One of the crucial pre-requisites in reducing poverty by 50 per cent in 2015 is to achieve economic growth rates of at least 7 per cent annually. However, most countries in the region have an average of growth rate ranging between 3-5 per cent (UNECA, 2008). The present global economic meltdown has further decreased prospects of achieving the growth rates necessary to reduce poverty.

Hunger and malnutrition are also the most devastating problems facing the region, as they increase vulnerability to disease and premature death. The unrelenting drought conditions experienced in the region and rising food prices continue to undermine measures to improve food and nutrition security. On average, 16 per cent (approximately 31,618,000) of children less than five years are underweight in the ECSA region. Swaziland has a relatively low proportion of underweight children (under-five) at 6.1 per cent whilst Zambia has the highest proportion at 23 per cent. (WHO Statistics, 2009). Many children born from families that are food insecure suffer from serious malnutrition and stuntedness as they are most likely to be deficient in major nutrients such as minerals and vitamins.

The HIV/AIDS scourge has significantly contributed to the inability of a number of countries to meet the MDGs. This is especially true Swaziland and Lesotho where the prevalence rate (remains unacceptably high at 25.9 per cent (overall prevalence) and 23.2 per cent (among 15–49 year olds) respectively. The combination of HIV/AIDS and poverty, has inadvertently contributed to higher than average child and maternal mortality rates. More and more children from poor households (which also are exposed to HIV/AIDS) are likely to die before reaching the age of five.

Several countries still face a mammoth task in mobilising adequate financial and human resources to scale-up programmes necessary to achieve the MDGs. This situation has severely undermined efforts to improve the health status of the population as reflected by the poor health indicators, especially maternal and infant mortality.

It is also necessary to consider several factors which have both a direct and indirect effect on the ability of the health system to deliver the expected health outcomes. These factors include capacity of implementing institutions (MOH), aid effectiveness, health system efficiency, and monitoring and evaluation. MDGs being largely quantifiable targets require robust M&E systems which for now do not exist in most member states. This has led to challenges in collecting

Key issues and challenges

In as much as there are mainly three MDG goals that are directly related

College of Surgeons for East, Central and Southern Africa East, Central and Southern African College of Nursing data and reporting on progress.

Current and forthcoming initiatives

ECSA-HC has since developed a region-wide programme primarily focused on fast tracking progress towards meeting MDG 4 (reducing child mortality) and MDG 5 (improving maternal health), with consequent improvement of indicators on maternal and child health. The programme is aptly named, 'Mother, Neonate and Child Alive 2015' (MNCA-2015). The programme is anchored on the premise that no mother or child should die from preventable illnesses and all efforts should be made to keep them alive.

The programme has essentially four components which are:

- improving access to quality maternal, neonatal and child healthcare;
- improving maternal and young child nutrition;
- capacity building for health workers and
- strengthening systems for MNCH service Delivery.

The underlying principle of the MNCA-2015 Programme is the adoption of a modified, more innovative, greater value-added model of policy formulation and programme implementation for effective service delivery to end users. The programme strategy will include a regional approach, enhanced country health sector focus, stakeholder participation and a programmatic approach.

The MNCA-2015 has recently been launched at the Fifth Health Ministers Conference held in Kampala, Uganda, on 15–19 February 2010. Efforts are ongoing to mobilise sufficient funding for implementation of the programme.

The Health Community has also been recently awarded a three year grant by the TIDES Foundation, under its Money Well Spent Project. The purpose of the grant is 'to improve the effectiveness and efficiency of funding for family planning/reproductive health in the East, Central and Southern African region'. Some of the activities to be implemented over the three year period will include assisting member states to review and update guidelines on FP/RH, strengthen integration of FP/RH services with other health services (e.g HIV/AIDS, malaria, TB), advocate for increased funding of FP/RH services and strengthen health systems for FP/RH.

A laboratory network project is also currently under formation and known as the 'East African Laboratory Network Project' supported by World Bank. The project will be implemented in four countries, Rwanda, Tanzania, Kenya and Uganda. The project aims to address the high burden of disease as a result of TB and in particular the rise in drug resistant TB, which poses a major public health risk in the ECSA region and beyond.

Conclusion

ECSA-HC realises that the call to meet the MDGs is very daunting especially in light of the present situation. The resources required for member states to meet the MDGs are enormous. As such, it is important and urgent that partnerships are formed, resources mobilised and efforts galvanised at all levels to provide the necessary assistance to member states. \blacklozenge

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Chapter 5

Turning the world upside down

Article by Lord Nigel Crisp

Independent crossbench member of the House of Lords

There are many examples of successful knowledge transfer from poorer to richer countries – as well as the other way round. Methods developed in Africa for treating conditions as different as HIV/AIDS and clubfoot are now being used world-wide. Lenses created for poor people in India are used in cataract operations around the world.

Mexico's *Oportunidades* programme, which was designed to bring services to the poorest parts of its population, was explicitly copied by New York City in 2007.

I have entitled this paper Turning the World Upside Down because it makes three arguments which together turn on their head some of the most common assumptions about strengthening health systems in poorer or developing countries.

These three arguments are that:

1. There is a new set of approaches to health services and systems being developed in poorer countries which are every bit as important as the introduction of ideas and practices from richer countries.

2. There is a need for a process of co-development – and mutual learning between countries and their development partners – which recognises that richer countries themselves have substantial problems and can learn a great deal from poorer ones.

3. System strengthening without building in continuous improvement is a waste of money and effort.

his short paper does not attempt to cover all aspects of health systems strengthening but takes as its starting point the WHO analysis that there are six essential elements that need to be addressed – service delivery, financing, governance, health workforce, information systems and supply management. The paper deals with two of them: service delivery and health workforce. The same principles and arguments as are used here with these two can, however, be applied to the others.

The paper builds on this analysis to argue that successful implementation of effective system strengthening requires systems thinking and attention to the way that all the elements of the system work together. There are now tried and tested ways of doing this.

It uses examples relevant to each of the three health-related MDGs – on tackling HIV/AIDS, malaria and tuberculosis; childhood death; and maternal mortality – and makes reference to poverty and the empowerment of women.

The paper starts by looking at innovation in low-income countries and considers how the relationship between high-income and low-income countries affects health systems strengthening.

The developing tradition in low-income countries

Leaders in low-income countries, without either having the resources or being burdened by the established practices of the high-income countries, have created new approaches and new ways of dealing with old problems.

In countries as different as India and Uganda health leaders are using the natural strengths of their countries, the sense of community and family and the desire for self-determination, to promote health and provide healthcare. They are supporting their women as the natural health leaders, linking microfinance schemes and health insurance and finding ways to reconcile local traditional medicine and its practitioners with the western scientific tradition.

There is now a whole compendium of different approaches which need to be recognised and spelled out. We are beginning to see distinctively African and South Asian and Caribbean solutions and systems being developed. It is important that we do not just see these as temporary measures which will be replaced, once resources allow, with approaches and systems developed in richer countries.

Two specific examples of this innovation are given here, but as I have described in a recent book, *Turning the World Upside Down*, there are now many different approaches as the following table sets out.¹

It is worth saying at the outset that these innovations do not mean that scientific development and more resources are not needed. Both are needed desperately: thousands of lives could be saved through the development of effective vaccines for HIV, TB and malaria and additional resources would undoubtedly improve outcomes. The central point is that, even today, we already have sufficient scientific knowledge and resources available in many low- and mid-income countries to save

These are different approaches where:

- Social enterprises use business methods to achieve social ends.
- Empowering people means helping them become economically independent as well as having rights and a voice.
- Health is dealt with as a part of people's lives and not as something completely separate.
- Health workers are trained to meet local needs and not just to be members of the established professions.
- Public health and clinical medicine are brought together.
- Best use is made of the resources to hand.

Source: Turning the World Upside Down figure 6.1, p 107)

thousands of lives each year. We just do not have the systems in place to deploy this knowledge and these resources effectively. Strengthened and, importantly, sustainable, health systems in the future need to be local blends that incorporate the best elements of local knowledge as well as methods and experience imported from richer countries.

Innovation in human resources

The first example of innovation in poorer countries comes from the field of human resources where many countries are developing their own approaches to training and employment in response to the well documented workforce crisis.

There is no shortage of ideas and examples to consider. In Mozambique, Pakistan and elsewhere governments are educating health workers to meet the needs of the country and not just of the professions. These workers fall broadly into two groups: mid-level workers doing technical tasks and community health workers who operate at the most local level and offer support and advice and simpler interventions.

These mid-level health workers, often called clinical officers in Africa, are trained in relatively short periods of time to deal with specific tasks such as undertaking caesarean sections or cataract operations, which require a full professional education elsewhere. Since 1984, for example, carefully selected health workers in Mozambique have been given training to become *tecnicos de cirurgia* (a sugically trained assistant medical officer) able to undertake obstetric and other surgery. These *tecnicos* have become the mainstay of the country's obstetric service in rural areas.

International studies have shown that there are no clinically significant differences in the outcomes between surgeries undertaken by *tecnicos* and by physicians. Moreover, the *tecnicos* were very much more likely to stay in the area where they were recruited – not moving to the cities, the NGOs or abroad – and provided a much less expensive service than physicians.^{2,3}

Other countries could tell similar stories. Many, like Pakistan with its Lady Health Workers and Malawi with Health Extension Workers, have also created cadres of community workers to be the most local point of contact with the health service, offer health promotion advice and provide some treatments. The specific arrangements vary from country to country. Some like India have different groups dealing with different successful practice around the world and drew out ten practical lessons from what had worked in these countries. We also showed how in a number of countries a new workforce model was being developed which made use of the different levels of health worker. Figure 1 shows in outline how by judicious development of the different cadres it is possible over time to build a robust workforce that addresses the needs of the three health MDGs.

Scaling up the health workforce *The Task Force report* - *Scaling up*, *Saving Lives* – was published in 2008 and fed into the Kampala Forum which produced the wider Kampala Declaration on health workers, which provides a template for developing a sustainable workforce.^{5,6} This simple diagram describes the creation of a distinctive model for the health workforce which is directly applicable to most low and middle income countries and which has been built up from experience in these countries.

All too often, there seems to be an assumption shared by country leaders and their international partners that when more resources are available countries should abandon this multi-layered approach and create a system dependent on the well established professions of the West. Given, however, that this system produces similar quality of treatment and care at a much lower cost I would argue that this needs to be turned upside down with richer countries instead moving to adopt a model more like that developing in poorer ones.

Innovation across the whole health system

Some countries are also innovating across the whole of the health system. Bangladesh is a very good an example of this. A local organisation, BRAC, which is the largest NGO in the world, operates alongside Government to promote the development of the population with particular attention to the needs of the poorest citizens.

BRAC works with local women's group to educate mothers, runs health services, provides more formal education, offers micro-credit to women to enable them to become traders or farm more effectively, has opened shops for the sale of their produce and has a university. It is, in effect, providing an entire support system for the poorest which enables them to stand on their own two feet and to take charge of their own futures.

In Africa and elsewhere governments embed their health policies within the wider framework of their policies to reduce poverty and

problems; others, like Ghana, have recruited and provided training for traditional birth attendants and other traditional health workers. In all cases, however, this is about using the strength of the local community, and particularly local women, to promote health.

International studies have shown that under the right conditions – having, in particular, appropriate training and good links with and supervision from more skilled workers – these workers can make a very big contribution.⁴

In 2006 the Global Health Workforce Alliance (GHWA) set up a Task Force, chaired jointly by Commissioner Bience Gawanas of the African Union and myself, to review how best to scale up the education and training of health workers. We looked at



promote the development of their country and its citizens. They treat health as one contributor to the wider whole, recognising that improving health and reducing disability and dependency contribute to the economy and a healthier economy can be a major factor in tackling disease and premature death.

The result is that we can see very different health systems emerging than those in richer countries such as the United Kingdom, the United States or France. These health systems link health with everything else from education to the economy, use different incentives, involve the community and empower citizens rather than professionals. By contrast The United Kingdom, the United States and France segment health away from other related factors, use mainly commercial incentives and empower the professionals.

There is a danger here too that as countries get richer they may abandon this sort of approach and start to promote a more professionalised and commercial system with the characteristics, good and bad, of those seen in richer countries today.

Interdependence, co-development and mutual learning

Health systems strengthening takes place within the wider context of international relationships. We have begun to understand over the last few years how interdependent all countries now are in terms of health. A disease incubated in one country can be around the world in 24 hours. All of us, even the richest countries, are dependent on there being sound health surveillance systems in every country that can spot and isolate new diseases wherever they arise. We are also interdependent through sharing the same pool of health workers, using the same drugs and treatments and, increasingly, having similar regulatory and knowledge sharing arrangements.

We may be interdependent but richer countries are also more powerful and generally benefit more from every kind of international transaction from trade and direct foreign investment to the distribution of health workers and access to new therapies. There is an enormous imbalance in power which is reflected in the migration of health workers from poorer to richer countries. This makes a difficult situation in many countries enormously worse.

There is increasing pressure for new and fairer global arrangements for sharing health expertise and resources. The Commonwealth has been very active in this field with the development of the Commonwealth Code of Practice on migration in 2004⁷ which has subsequently contributed to the Code of Practice to be debated at the World Health Assembly in May 2010. Whilst some issues such as these need to be addressed globally, others such as the development of plans and improvement of employment conditions need to be handled locally. There are both national and global responsibilities.

In richer countries the combination of a growing professionalism, universities and research institutes and commercial exploitation are driving a great deal of scientific and technological development – but failing to deal with the growing problems of non-communicable diseases, lifestyle epidemics and social change – none of which are dealt with effectively by current systems.

Poorer countries, precisely because they have so few resources, have had to learn how to engage patients and communities in their own care, how to prioritise promoting health over tackling illness, how to deploy new technologies effectively and how to manage the ever growing burden of costs. These are exactly the sorts of issues that need to be grasped in richer countries as they come to terms with the diseases and long-term conditions of the 21st century. There is much that they might learn from experience in these low-income countries.

Thinking in terms of co-development and mutual learning, rather than international development and one-way knowledge transfer, is very important in order to make development processes more genuinely respectful and country led. It means that low-income countries are less likely to repeat the mistakes of richer countries and more able to build on their own experiences and traditions – and to learn from others in a similar position to themselves. It will also help us to develop new ideas globally for the benefit of us all.

The future for global health

This mixing of learning from rich and poor is helping to create another way of thinking about health which is not so bound by professions, does not separate health from the rest of society and which understands and embraces the way that culture and social issues impact on health. Ill health and poverty go hand in hand with poor education and dangerous environments; whilst good health and economic growth are equally linked. Social conditions and structures influence health; with, for example, the empowerment or otherwise of women having a major influence on their chances of a healthy life.⁸

This approach respects evidence and science, but wants to understand how things are achieved in practice and what role patients and the public play alongside scientists and clinicians. It does not start, as western medical education has traditionally done, by studying the science and then applying it to society but, rather, turns the world upside down and starts with understanding society and seeks to apply the findings from both the natural and the social sciences. It is a profound difference that influences the way that clinicians think and behave.

This approach of learning from the poor, the young and the excluded when combined with the new sciences and technologies – where the internet and the contraceptive pill have already turned our world upside down – will help us confront and tackle the challenges of the future.

The science of improvement

Another non-traditional way to think of health is in terms of health systems and not just in terms of the elements such as the professions, the scientific knowledge, the resources and the institutions that make them up.

There are three main points here. The first is simply the observation that adding resources of knowledge, money, staffing and equipment to existing poor systems is not enough; effort has to be put in simultaneously to improve practices, service design and efficiency. The danger is that a very small and badly operating system will be replaced by a bigger and more expensive but equally poorly operating system. The challenge is how to apply the knowledge and resources to have an impact. A functioning system is needed for this.

The second point is that it is important to think in systems terms about how all the elements of the system work together. Changes in one part of the health system will affect all the others. Adding extra workers, changing the way finances flow, introducing a new drug or treatment: each of these changes will affect other parts of the system for better or, sometimes, for worse.

This point is particularly important in systems which are growing and changing rapidly, as they are in many poorer countries. A doctor trained to work in the system today will have to change his or her practice to work in tomorrow's system where there will be more doctors, facilities and drugs. If he or she doesn't change they may make the whole system actually worse with, for example, different doctors doing different things and failing to coordinate their activities. It is therefore important that the doctor can both learn and take a leading role in making improvements as the system grows and develops.

The third point is that there is a growing understanding of how to make health systems work effectively and a developing science of improvement which can be used to make changes systematically and at scale. These methods can be used as part of the implementation process of system strengthening so that the skills and the expectations of continuous improvement are built in from the start.

Whilst this thinking has developed in richer countries with their wealth of resources and their more hospital-based systems, it has now been adapted successfully for use in resource poor and more community based environments elsewhere.⁹

Many countries have problems with their health systems due to poor planning and prioritisation, bad communication, multiple vertical programmes with poor integration, lack of coordination between national, regional and local levels and an absence of measurement and accountability. As a result their systems do not operate effectively. These issues can only be addressed by taking a whole system approach rather than simply trying to fix each of the component parts.

At its simplest the key to these systems based approaches is to start at the most local level by bringing together the health workers who share a particular goal – such as reducing child mortality – to look at their own systems, identify the barriers and decide what practical steps can be taken immediately to make an improvement. These practical steps might be as simple as changing the day on which supplies are delivered, introducing a new referral process or agreeing a new way of counting activity or measuring success. One such relatively simple change is implemented initially and the results reviewed – and amendments made as necessary – before another practical step is taken. This series of steps – or improvement cycles – continue and over time there is a cumulative improvement and progress is made towards the goal.

The practitioners who developed these approaches have also learned that change can be made at scale by linking or networking health workers from multiple different clinics and hospitals with the district managers to allow problems to be solved rapidly across large referral regions. This approach provides a mechanism for simultaneously



sharing the learning between many levels of the system. At the same time lessons learned are fed back to the higher levels in the system and in this way local best practices can be rapidly spread to other areas of the country. Since this approach encourages close attention to the reporting and feedback of data, visible results from one area can quickly garner support for the changes in other areas. Action needs to be taken at the lowest and the highest levels together. Learning and improvement is accelerated where different groups and different levels are working together in this way.

A number of organisations are now assisting low and middle income countries to strengthen health systems and improve outcomes through application of these methods. For example, the Institute for Healthcare Improvement (IHI) has worked with local groups in Malawi, South Africa and Ghana to strengthen delivery of care for HIV and maternal and child health in this way. In the Western Cape Province in South Africa IHI worked with the Provincial and City Health Departments in two sub-districts with a population of 800,000 to find and treat everyone with HIV who required highly active antiretroviral treatment (HAART) and to decrease maternal-child HIV transmission to less than 5 per cent within two years. IHI worked with health workers in all the facilities in these sub-districts to run a series of improvement cycles with rapid improvement in district wide access to treatment for AIDS as shown in the following charts.¹⁰

In this example the districts used a phased approach to scale-up rapidly the access to drugs for AIDS patients – initially testing ideas with one site, then spreading a few months later to a cluster of clinics and, finally, to all clinics in the sub-district. The learning from the initial test sites was incorporated into the rapid scale-up phase and allowed the district leaders to move decisively and confidently, knowing that they had a credible package of services, which had been developed locally, to improve care. In both sub-districts the goal of treating all the patients with AIDS who needed treatment was achieved within two years primarily through changing the way that care was delivered rather than through more staff and resources.

There are now many successful examples of the use of quality improvement methods to strengthen systems and improve health system effectiveness in richer and poorer countries around the world. Perhaps the most important point here is that these methods should be used as

a central element to implement large scale health programmes and to strengthen health systems. They are not add-ons to implementation processes which introduce new financial systems, train more workers or build more facilities but a central part of making the change. There are many advantages in using improvement methodologies as the central mechanism for implementing system strengthening: they involve practitioners from the start in designing and 'owning' the change, engage all levels of the system, can be applied to any type of health programme and are flexible and adaptable to local culture and environment.

Strengthening health systems for the MDGs

A number of countries are now explicitly adopting quality strategies of this sort and it is encouraging to see that a recent publication from the Alliance for Health Policy and Systems Research and the WHO advocates systems thinking for health system thinking.¹¹ There is now a good weight of both theory and practice to support implementation through improvement methodologies.

These arguments suggest that in order to implement the six WHO building blocks for health systems strengthening which were mentioned earlier it is important to make an explicit commitment to implementation through:

- Building on the emerging approach in low-income countries as well as the established traditions of high-income ones.
- Co-development and mutual learning between richer and poorer.
- Using a systems and quality improvement approach from the outset – which involves local practitioners as well as policy-makers and, in securing greater quality and efficiency, makes precious resources go further.

Recommendations

The Commonwealth, with its mix of countries and shared traditions is uniquely well placed to play a leadership role in these developments. I recommend that the Commonwealth should:

- Develop arrangements for sharing knowledge of system strengthening among its members based on their experience of successful implementation.
- Specifically, building on the work of GHWA and others, share experience and knowledge of the development and the role of midlevel and community health workers in an effort to identify appropriate mixes of cadres of health worker appropriate to the environments of mid- and low-income countries.
- Explicitly, adopt methods of quality improvement as the prime mechanisms for systems strengthening.

Mid- and low-income countries, which face the greatest health problems, should, as I have argued in the introductory paper, take the lead in tackling the MDGs with the active support of the high countries of the world.

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Lord Nigel Crisp is an independent crossbench member of the House of Lords and works mainly on international development and global health. His new book *Turning the world upside down – the search for global health in the 21st century* was published in January 2010. It takes further the ideas about mutual learning between rich and poor countries that he developed in his 2007 report for the Prime Minister – Global Health Partnerships: the UK contribution to health in developing countries – and shows how this will shape healthcare in the future.From 2000 to 2006, he was both Chief Executive of the NHS, the largest health organisation in the world, and Permanent Secretary of the Department of Health and led major reforms in the English health system. A Cambridge philosophy graduate, he worked in community development and industry before joining the NHS in 1986. More information is available at nigelcrisp.com

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ne Lehr courtesy of Medecins du Monde

2010 REALITY CHECK – TIME IS RUNNING OUT TO MEET THE HEALTH MDGs

The Millennium Development Goals, including those specifically about health, will only be met by committed partnerships that benefit developing and developed countries alike. The Commonwealth is a key mechanism for supporting such partnerships.

Action for Global Health (AfGH) is a network of European health and development organisations advocating for the European Union and its Member States, and international bodies in which they operate, to play a more proactive role in enabling developing countries to meet the health Millennium Development Goals (MDGs) by 2015.

AfGH takes an integrated approach to health and advocates for the fulfilment of the right to health for all. One billion people around the globe do not have access to any kind of health care and we passionately believe that more can be done to change this. We advocate for the health-related MDGs to be addressed as a package as we believe that they are inextricably linked and will never be achieved if addressed in isolation from each other.

Ten years ago world leaders committed to meeting the MDGs by 2015. In order to reach this target, now is the time for governments to reaffirm their commitment and fast-track progress towards meeting these goals.



In order to enable developing countries to meet the health-related MDGs by 2015, AfGH calls for:

- Aid donor countries to ensure that at least 0.1% of their Gross National Income is allocated to strengthening primary healthcare systems that are free at the point of use in developing countries. This is in line with a target set by the World Health Organisation's Commission on Macroeconomics and Health; and
- Aid donor countries to support access to healthcare free at the point of use; and
- Aid donor countries to provide developing countries with technical and financial support to strengthen their capacity to plan and implement programmes to increase their health workforce; and
- Aid donor countries to provide targeted support for the capacity building of civil society – especially community based organisations representing marginalised and vulnerable groups – to enable their meaningful engagement in all health programming.

Established in 2006 by 15 organisations under the leadership of ActionAid and with funding from the Bill & Melinda Gates Foundation, AfGH is active in France, Germany, Italy, Spain, the United Kingdom and Brussels.

Visit our website to learn more about our work and how to engage in our advocacy and campaign actions: www.actionforglobalhealth.eu



Chapter 6

The role of health professional associations in achieving the Millennium Development Goals

article by Commonwealth Health Professions Alliance

The 2010 Commonwealth Health Ministers' meeting has at its theme: The Commonwealth and the health MDGs by 2015. In preparation for the Commonwealth Health Ministers' meeting (CHMM), the Commonwealth Health Professions Alliance (CHPA)ⁱ was interested in exploring the role national health professional associations were playing or could play in achieving the Millennium Development Goals (MDGs). One of the roles of the CHPA is to provide their member associations with information, ideas and strategies about global health issues and to encourage their involvement with their governments in addressing these health issues within their own countries. The CHPA considered an active and committed health workforce a necessary prerequisite for achieving the MDGs however were keen to explore whether their member associations were as well informed or as actively involved with their governments as they could be or whether they were involved on their own initiative in actions to achieve the MDGs.

A short survey was developed to explore the knowledge of national health professional associations about the health Millennium Development Goals; their perception of whether or not their government was actively involved in actions to achieve the health MDGs; and whether or not their own association was actively involved with their government in actions to help achieve the MDGs. The survey also sought respondent views about priority actions for themselves and their governments in achieving the health MDGs.

The purpose of the survey was to provide baseline information to the CHPA about the level of their members' knowledge of and involvement with the MDGs to inform future CHPA activities in supporting their members as well as to develop recommendations to put to Commonwealth Health Ministers at their 2010 meeting. This paper outlines the responses of the national health professional associations to the survey questions.

It is important to note that these responses may not be representative of all national health professional associations in Commonwealth countries. Not every health profession has a national association in every Commonwealth country and some associations are very small with honorary staff and only limited access to email. Additionally, it is quite likely that those members who were more familiar with the MDGs would be more likely to respond to the survey. However the responses do provide some suggestions for health ministers to consider and a way forward for the CHPA in supporting their members in fulfilling an active role in helping their governments to achieve the MDGs.

Methodology

Over the first two weeks in March 2010, each member of the CHPA emailed a short seven question survey to their national member associations. Survey questions included both quantitative and qualitative data. The last two question of the survey asked respondents to identify which health profession they were representing and which country their responses referred to. The responses were returned by email by the respondents to the CHPA email address.

Quantitative data were summed and are presented as a simple percentage of responses. Analysis to compare responses within regions or within health professions was not undertaken as some of the numbers were very small. Qualitative data underwent theme analysis to identify

> emerging themes using a double blind content analysis approach to identify reoccurring words or groups of words

The Commonwealth Health Professions Alliance (CHPA) is an alliance of accredited Commonwealth health professional associations which includes dentists, doctors, nurses pharmacists and community health workers. The membership of Alliance members includes national associations representing health professionals. Members of the CHPA consider that by working together they can more efficiently and effectively represent and support health professionals in Commonwealth countries and promote high standards of care and equity in access to care for Commonwealth peoples. The CHPA also consider that by working together they can be more influential in advocating on behalf of Commonwealth health professionals and Commonwealth peoples in Commonwealth forums, including meetings of the Commonwealth Health Ministers.

Africa	Asia	Caribbean	South pacific	Europe	Americas
Sierra Leone	Malaysia	Barbados	Fiji*	Malta	Canada
Tanzania	India	Bahamas	New Zealand	UK	
Kenya	Bangladesh	St Kitts and Nevis	Tonga		
Cameroon	Pakistan	Montserrat	Australia		
Ghana		Grenada	Samoa		
Uganda		Jamaica	Nauru		
Botswana		Trinidad and Tobago	Singapore		
Malawi					
Lesotho					
Mauritius					
Nigeria					
Guyana					
*Fiji, while suspended from the Commonwealth, remains a member of some Commonwealth health professional associations					

which were organised into logical sub themes and then aggregated into theme clusters.

Findings

Seventy five civil society organisations representing health professionals (community health workers, dentists, doctors, nurses and pharmacists) from 34 Commonwealth countries responded to the Commonwealth Health Professions Alliance survey. It was not possible to generate a response rate as some CHPA members sent surveys directly to national member associations while others used a regional structure and relied on regional representatives to disseminate the survey.

QUESTION 1: Familiarity with the health MDGs

Respondents were asked whether or not they were familiar with the health Millennium Development Goals. Ninety per cent of respondents stated they were familiar with the health MDGs. A website link to the MDGs was provided so that those not familiar could locate further information.



QUESTION 2: Knowledge of government involvement in programmes to achieve the health MDGs

Respondents were asked whether or not, to their knowledge, their government was actively involved in programmes to achieve the health MDGs. Of the 75 associations who responded, 85 per cent considered that their government was actively involved in achieving the MDGs.



QUESTION 3: Involvement in government programmes to achieve the MDGs

Respondents were asked whether or not the association to which they belonged was actively involved with their government in programmes to achieve the health MDGs. Sixty nine per cent of health professional



associations (n=52) were actively involved with their governments in programmes to achieve the MDGs.

QUESTION 4: Action needed for governments to achieve the health MDGs

Respondents were asked to identify the most important actions for their government to take to achieve the health MDGs. Four main themes were identified from analysis of the responses: sustainable health systems; sustainable health programmes; a sustainable health workforce; and a sustainable environment.

Sustainable health systems

- Provide adequate funding for health which is transparent and accountable.
- Align policy objectives to resource allocation and budgeting.
- Develop national policies and legislative support for health programmes delivered by the health workforce.
- Develop information technology to support health programme delivery and the health workforce.
- Provide timely data collection on health status and health programmes and report in a framework that allows international comparison.
- Formally evaluate all health programmes and interventions.
- Develop global partnerships to share resources and the skills of the health workforce.

Sustainable health programmes

- Place a major focus on primary healthcare programmes delivered at the local level (rather than on in-patient hospital care).
- Develop a national primary healthcare plan which includes the health Millennium Development goals and targets.
- Provide universal access to healthcare without cost at point of delivery particularly for women and children under the age of 18 years.
- Provide universal access to affordable essential medicines.
- Provide health information including in schools and local community centres.
- Provide early detection services including testing at a local level.
- Increase the number of midwives for the provision of family planning services and pre and post natal care at the local level.

Sustainable health workforce

Develop a national plan to educate and provide a sustainable health workforce currently and for the future including specific recruitment and retention strategies.



Figure 5: Infant mortality and % skilled personnel



*Data taken from UN STATS Millennium Development Goals available from: http://mdgs.un.org/ unsd/mdg/. Data is a compiled from country estimated data. Year of infant mortality data is reported to be 2007. Year of % of births attended by skilled personnel varies.

- Ensure working conditions for the health workforce are safe and fair.
- Deploy the health workforce so their skills are maximised with a focus on primary healthcare at the local level.
- Allow appropriate and safe multi-skilling within a supportive legislative framework (e.g. nurses and pharmacists to supply and dispense medications; pharmacists to provide testing and counselling services).
- Develop a programme of capacity building for the health workforce including a formal programme of competency assessment and continuing education.
- Develop a national policy for managing the migration of health professionals and health workers so that their skills are not permanently lost to their home country.
- Involve the health workforce in policy formulation and decisionmaking on health issues.

Sustainable environment

- Provide a politically stable environment.
- Provide universal access to a safe water supply.
- Provide support to the agricultural sector to improve food supply and

nutrition.

- Develop and implement strategies to address poverty and reduce financial inequality.
- Address overcrowding in urban housing and provide alternate housing to squatter camps.
- Develop and implement strategies to reduce gender inequality.
- Provide at least nine years of universal education for boys and girls (essential for health literacy and to combat discrimination, stigmatisation and stereotyping).

QUESTION 5: Actions required by national associations to help governments achieve the MDGs

Respondents were asked to identify the

most important actions for their associations to take to help achieve the health MDGs in their own or another country. Four main themes were identified from analysis of the responses: be involved; advocate; educate; evaluate.

Be involved

- Work together with a focus on team work to provide high quality health services at the local level.
- Use multi-skilling when safe and appropriate for efficient care delivery and develop partnerships with traditional community healers.
- Mobilise the community to take individual responsibility and collective action to improve their own health.
- Conduct research to improve health service provision.

Advocate

- Lobby the government to develop and implement a national plan for the education and provision of adequate health professionals and health workers.
- Lobby the government to improve working conditions for health professionals and health workers: safe workplace, adequate resources, reasonable workloads, improved salaries.
- Hold the government to account either to deliver on donor commitments or to be transparent and accountable in the spending of donor funds.

Educate

- Provide information and education about the MDGs to all health professionals and health workers.
- Raise awareness of health issues in the community with the provision of information and education.

Evaluate

- Monitor and evaluate own practice.
- Monitor and evaluate health programmes.

Discussion

The CHPA consider that an adequate supply of health professionals to

deliver primary healthcare is a necessary prerequisite to a country achieving the health MDGs. This view is supported by the World Health Organization which notes a direct relationship between the ratio of health workers to population and survival of women during childbirth and children in early infancy (WHO 2005). As the number of health workers declines, survival declines proportionately. The GHWA claims that the health worker shortage has been a major impediment to making progress on meeting the MDGs. The United Nations High Level Meeting on the MDGs in September 2008 recognised that an adequate health workforce is fundamental to ensuring progress on improving maternal and child health and achieving the MDGs. Health workers provide essential, life-saving interventions such as care for



Figure 7: Maternal mortality and % skilled personnel



unsd/mdg/. Data is a compilation of country data, estimated data and modelled data. Year of maternal mortality data is reported to be 2005. Year of % of births attended by skilled personnel varies.

congenital defects (7%), tetanus (7%), diarrhoea (3%) and others (7%), can be avoided with the provision of antenatal care by skilled health personnel as can low birth weight which is related to maternal malnutrition and which is reported to be a causal factor in 60-80 per cent of all neonatal deaths¹. Likewise, the major causes of maternal deaths: haemorrhage (25%); infections (15%); eclampsia (12%); obstructed labour (8%); unsafe abortion (13%); other direct causes (8%); other indirect causes (20%) can be avoided with the provision of skilled health personnel, such as midwives, nurses and doctors, to provide quality antenatal and birthing services (WHO, 2005).

A primary strategy therefore in government action plans to achieve the MDGs should be a focus on the health workforce: its sufficiency, its skills mix and its deployment.

The CHPA noted in preparing this paper the gross inadequacy of timely, accurate data across Commonwealth countries. Very little available data was actually generated by countries themselves and relied

pregnant women, safe childbirth, vaccinations and access to services for HIV and AIDS, tuberculosis and malaria (GHWA, 2008).

It is the role of health professional associations to represent their health professional members. This representation includes lobbying for a sufficient health workforce and a safe environment in which they can provide care. It also includes being actively involved in policy formulation and decision-making at a national level and participating in programmes to enable them to more effectively and efficiently provide healthcare.

It was encouraging to note that 90 per cent of respondents claimed to be familiar with the health MDGs, although as previously stated, it is possible that associations familiar with the MDGs would be more likely to return the survey. Also encouraging was that respondents considered 85 per cent of their governments were actively involved in actions to achieve the MDGs in their countries. However only two thirds of respondent associations were actively involved with their governments in programmes to achieve the MDGs leaving an untapped potential of one third of respondent organisations whose input and expertise is not being utilised. Respondent comments indicated they were willing to be involved, they recognised they had a responsibility to be involved, and intended to pursue involvement with their government in the future.

Reducing child mortality and improving maternal health are goals 4 and 5 of the MDGs. Countries which have a higher health worker ratio have better outcomes in reducing infant and maternal mortality. The graphs below show those countries with the highest and lowest infant mortality and the highest and lowest maternal mortality and plot the percentage of skilled personnel who attend births in that country. The graphs clearly demonstrate the inverse relationship between infant and maternal mortality and the percentage of skilled personnel who attend birthing mothers. Similar graphs can be generated for the other health MDGs.

The graphs are based on United Nations country estimates and the year of collection varies. However the major causes of infant mortality: preterm (27%), pneumonia and infection (26%), asphyxia (23%),

on modelling or estimates. Years of collection varied even within the same data set. Definitions also varied. The CHPA consider that a major priority for Commonwealth governments should be a commitment to developing and publishing timely data that is consistent across Commonwealth countries and comparable globally.

In their responses to the CHPA survey, national health professional associations noted that the health workforce does not provide services in a vacuum. For health workers to be effective, they need supportive health systems and health programmes and a safe environment in which to provide care. Respondents saw health service delivery in a broad context, stating that health, education and poverty are interdependent and cannot be addressed independently as they perceive it is often being done now. The alleviation of poverty, the provision of at least nine years of universal education, and the provision of a stable environment they considered must go hand in hand with universal access to healthcare free at the point of delivery, particularly for women and children. Health professionals also considered that a politically stable environment was an essential factor in achieving the health MDGs and that in the midst of a conflict or a crisis development is impossible.

Conclusion

The responses to the CHPA survey suggest that Commonwealth health professional associations consider that, in order to achieve the MDGs, governments need to focus on sustainable health systems; sustainable health programmes; a sustainable health workforce; and a sustainable environment and that the principles of sustainable development should be incorporated into all country policies and programmes.

Health professionals and their associations have a major role in being actively involved, lobbying their governments for a national health workforce plan, educating themselves and their communities about the MDGs and the need for a healthy lifestyle, and monitoring and evaluating progress.

Health professional associations recommended that national governments should establish a national committee to develop a national plan, if one was not already established, to achieve the MDGs in their country or to assist another country to achieve the MDGs. The national committee should include representation from associations of dentists, doctors, nurses, pharmacists and community health workers. The national plan should have a primary healthcare approach and include strategies to achieve a sustainable health workforce.

They further recommended that national governments establish mechanisms to collect relevant MDG data in a timely manner which is globally consistent and comparable and which is made publically available so that progress in achieving the MDGs can be more accurately measured.

For their own part, national health professional associations considered that strategies to become involved in working with their government to achieve the MDGs should be included as part of their organisation's strategic plan and that they had a responsibility to educate and inform themselves about the MDGs. They expressed a willingness to work in partnership with their communities and their governments to help achieve the MDGs.

The CHPA also considers it has a responsibility to raise member's awareness of the health MDGs and to encourage them to become actively involved with their governments and with their communities.

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Achieving the health MDGs through implementing the UNCRPD



The MDGs and the UNCRPD

People with disabilities are one of the world's largest minorities and number 650 million, at least 200 million of whom live in Commonwealth countries. It is estimated that of the world's poorest people 1 in 5 is a person with disabilities. Leaders at the 2007 Commonwealth Heads of Government Meeting¹ 'welcomed the adoption by the UN General Assembly of the UN Convention on the Rights of Persons with Disabilities' (UNCRPD) and encouraged 'all Commonwealth countries to consider ratifying and implementing the Convention without undue delay.' At the time of writing, 39 Commonwealth countries have signed the Convention of which 19 have ratified the Convention and its optional protocol.

What does the Convention have to do with the health MDGs?

- Mortality rates for disabled children under five can be as high as 80 per cent.
- Up to 20 million women a year are affected by disabling impairments associated with pregnancy and childbirth.
- Disabled women face particular challenges in accessing reproductive health education as they are not considered to be sexually active.
- Disabled people are particularly vulnerable to HIV/AIDs, malaria and other diseases.²

According to the UN, "The MDGs can only be achieved if persons with disabilities and their family members are included... Efforts to achieve the MDGs and implement the Convention are interdependent and mutually reinforcing."³

Removing the barriers to achieving MDGs 4, 5 and 6

How can Commonwealth countries remove the attitudinal, environmental and institutional barriers that face disabled people trying to access health services? Training health staff, for example, to respond to the needs of a disabled mother may affect whether her child survives. The installation of a ramp may make a hospital accessible to a wheelchair user. Sign language interpreters can ensure that deaf people are included in HIV/AIDs training.

When a hospital, health authority or Ministry of Health plans services in Commonwealth countries, do they for example:

- Collect data on the number of persons with disabilities benefiting from their development activities?
- Design their development projects and programmes to ensure that persons with disabilities can participate and benefit?
- Ensure all activities include the participation of persons with disabilities?⁴

The international community needs urgently to act to mainstream disability in the MDG processes. As expressed in Article 32, International Cooperation, of the Convention, this requires policy makers and technical experts specifically tasked with the programming, monitoring and evaluation of current MDG programmes to ensure that the next phase of the implementation of the MDGs will include disability as an important component of its core mission.⁵

Action on Disability and Development (ADD)⁶ is a UK-based international NGO with the vision of a world where all disabled people are able to enjoy their rights, fulfil their responsibilities and obligations and participate as fully as they choose at every level of society. ADD works directly with disabled peoples' organisations (DPOs) in Africa and Asia to influence policy and practice to end social exclusion and poverty.

For further information please go to ADD's website www.add.org.uk or write to: ADD's UK office is Vallis House, 57 Vallis Road, Frome, Somerset BA11 3EG Telephone: +44(0)1373 473064 or email: sarah.sandon@add.org.uk

- ² DFID February 2000 Disability, Poverty and Development
- ^{3.} http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf
- * http://www.un.org/disabilities/default.asp?id=33
- "nttp://www.un.org/disabilities/default.asp?id=14
- ^a ADD Charity Commission Number 294860

In their Kampala Communiqué

Chapter 7

Building sustainable, cost-effective systems to reach the health MDGs and improve essential healthcare

article by Thomas Kibasi, Tim Knapp, Angus O'Shea, Ben Richardson, Shrey Viranna McKinsey & Company

In this paper we describe how eight countries across four continents achieved MDG success by applying remarkably similar solutions despite dramatic differences in GDP, population, health burdens and histories. They did so by expanding access, providing the needed funding for this and building system leadership capability. They all increased their health spend but, although it might seem contradictory, the evidence suggests that other countries can still do a great deal more with the resources they already have. Ultimately, resources from both countries and donors can work better and more effectively, and therefore have a greater impact on a population's health.

The increased attention given to health over the last decade has resulted in significant progress. Development assistance for health has risen steadily since 1995 from about US\$8 billion to nearly \$19 billion in 2006.¹ As a result of this enormous financial injection, there have been some wonderful success stories: access to antiretroviral treatment for HIV has dramatically increased, and large strides have been made in combating malaria and tuberculosis. Funding to produce, distribute and administer drugs to fight these diseases has helped reduce mortality and the global community should be proud of these achievements.

However, not all areas have made sufficient progress. In the 49 poorest countries, over half a million women will die from preventable, treatable pregnancy complications in 2010. Half this number again will die from HIV. Many more will die in or from simple accidents. Access to basic healthcare would prevent many of these unnecessary deaths.

Child, infant and maternal mortality rates were key components of the health-related Millennium Development Goals (MDGs), set out at the start of the decade. Countries have dedicated substantial resources, attention and effort in meeting the MDGs, yet too many have struggled to reap the rewards. Unlike communicable diseases, the causes of infant and maternal mortality cannot be treated by providing drugs. Immunisation programmes require the systematic management of patient records and comprehensive access. Ensuring women have a safe delivery means providing four antenatal visits, having a skilled attendant present at delivery, and offering post-natal care, with all the services and support (including swift transport) that entails. The problem is, therefore, not only about getting a product to a patient, it is about delivering an effective and financially viable healthcare system.

With this in mind, we looked at the efforts of eight developing countries that have improved health outcomes over the last two decades and made good progress towards (and in some cases have already met) multiple health-related MDG goals. This allowed us to identify common themes that governments should focus on when designing system reform programmes; our conclusion is that the three most important factors are increased access, greater resources for healthcare and stronger leadership. We then look at the implications for the countries and for donors.

Common themes from successful examples

To understand what can be learnt from successes over the last two decades, we identified eight countries that will meet at least two or more of the health MDGs (Figure 1), and identified some common themes behind their achievements. These eight countries – Rwanda, Uganda, Ethiopia, Vietnam, Brazil, Bolivia, Iran and Peru – are all at very different stages along a trajectory of healthcare development. The poorest, such as Rwanda and Uganda, still have only limited healthcare services, while Brazil already provides a comprehensive healthcare system. All, however, have deployed targeted and cost-effective solutions that go hand in hand with broader national economic priorities and anti-poverty measures.

We deliberately chose countries from across the spectrum of health system development, primarily to determine whether or not there are common themes that can apply to countries at different stages of development. As Hsiao and Heller set out, health systems can be categorised on the basis of their stage of development, which typically links to the country's income level.² This does not imply that progress is either uniform or linear, but countries of similar income level share challenges and their systems have common characteristics. Furthermore, as income changes, so does the disease burden and health systems' need to adapt to address it, from low income countries that need to focus on providing access to basic care in face of huge challenges in providing sufficient levels of human resources for health, through to countries more focused on chronic disease and the distribution of human resources for health as opposed to absolute numbers. It is not necessary for developing countries to follow the same path as advanced economies, nor reproduce the inefficiencies of developed healthcare systems. Yet no matter where they were on the path towards a fully fledged healthcare system, the efforts of the eight countries demonstrated some commonalities that are applicable to other countries at any point on the development trajectory.

These common themes can be broken down into two broad categories: expanding effective patient access and developing system leadership. Neither can be isolated from the other, but they provide a convenient framework within which to examine smart ways in which countries have overcome their cost constraints.

Effective patient access to care

We identified five access-related success factors, each of which lead directly to unlocking extra capacity in the system.

Last mile delivery. In Iran and Ethiopia, thousands of 'health posts' in rural villages enable basic healthcare delivery to the remotest areas. This increases the reach of those healthcare workers in physical clinics, enabling them to cover a significantly larger

population without incurring higher staffing costs.

More healthcare workers on the ground. In Ethiopia, the number of health extension workers grew to over 17,000 in just seven years. Iran established 16,000 health houses in villages, staffing them with two behvarz (one male and one female), and Rwanda established 45,000 non-clinical health workers, electing three per village. In Brazil, the *Programa Saúde da Família* (PSF) programme employs over 200,000 community health workers, with between four and six attached to each PSF team.

Primary healthcare delivering national priority disease programmes. Vietnam, Brazil and Peru have all successfully tackled malaria and TB by providing services through local community healthcare systems rather than creating parallel systems. In Peru, all healthcare is delivered and managed through elected *comités locales*, with immunisation (for example) contracted to such community health agents.

Outreach programmes targeting prevention. Health workers that come from the communities they serve can have a huge impact, acting as links between rural areas and the formal healthcare system and providing essential information on disease prevention. In Rwanda, for instance, the *Umudugudu* volunteers collect information, proselytize prevention, promote awareness and drive adoption of the mutuelles des sante, a community risk pooling programme. In Iran, a *behvarz* must come from the community they are serving, meaning they have an entrenched understanding of community issues. This creates the opportunity for far more targeted outreach efforts that have a much higher chance of success.

Affordability. Both direct (f.ex cost of care and medicine) and indirect (f.ex time and cost of travel to clinics) costs are a major obstacle for the poorest people. Some countries, such as Brazil, provide free care while others such as Peru have free care for some at-risk groups, including pregnant women and young children. In many cases affordability can be addressed by a combination of risk pooling and access changes, again increasing the net coverage of the existing system.

Funding increased access

All the countries that have made notable progress against the MDGs have increased health spending significantly. It is no news that when

	GDP por		Child	Infant	Matornal		On track Met target	
	Countries	capita (PPP)	mortality	mortality	mortality	HIV	Malaria	тв
	MDG 2015 ta	rget	>66%	>66%	>75%	>0%	>0%	>0%
Latin America	Peru	8,108	75	6450	N/A	-350	90	53
	Brazil	7,868	64	60	50	-65	21	43
	Bolivia	3,424	56	43	55	-650	N/A	44
Sub- Saharan Africa	Rwanda	1.436	7	1	N/A	69	24	-91
	Uganda	1,045	25	16	54	60	40	-35
	Ethiopia	878	39	37	49	-183	-5	-192
Middle East	Iran	9,826	57.2	44	N/A	-850	N/A	25
Asia	Vietnam	2,567	74	61	N/A	-980	99	27

Figure 1: Eight countries were identified for progress towards multiple MDGs

Unit of measure: Percentage reduction, 1990 to 2007, % Source: WHO

more money is spent on health, outcomes improve. It is also true that there is a minimum spend required to maintain an essential standard of care.

All eight countries increased health spending per capita in purchasing power parity terms by an average of more than 130 per cent from the period 1995 to 2007. This has been driven by a combination of GDP growth, maintaining or increasing the proportion of GDP spent on healthcare, and increasing donor assistance. In contrast, for the world's 49 poorest countries, health spending increased only 63 per cent over the same period, with the rate of increase being less than 39 per cent from a peak in 1999.³

If governments want to improve health outcomes, they must do so primarily with domestic resources through the combination of GDP growth and an increased share of GDP dedicated to health. On average, low income countries spend US\$25 per capita on health; of this US\$10 comes from out-of-pocket spending and only US\$6 comes from aid.⁴ While aid budgets are at best likely to remain flat (or decline in face of fiscal tightening), many economies in Africa have continued to grow. Furthermore, the Abuja target commits countries to increase the proportion of their budget spent on health.

Ultimately, whether the funding comes from national budgets or from donors, improved cost-effectiveness is the best way to unlock resources and to do more with what exists – especially given today's financial constraints. Achieving cost-effectiveness is easier said than done but, to the extent countries can make programmes more cost-effective, they can accelerate access even faster as domestic resources expand.

Expanding system leadership capabilities

All these examples, and others, have been immensely beneficial. However, improved outcomes at a national level cannot be sustained through sets of disparate initiatives. In each country system management, and delivery capabilities underpinned these efforts.

Strong leadership, in turn creating strong system management, has usually driven substantive change at the system level. It takes strong leadership at both ministry and district levels to develop and enforce compliance with a national plan, given the myriad government departments, donors, faith-based organisations, NGOs, multilaterals and other interested parties involved. In Rwanda, the country's president himself signs performance contracts set by the local government at even the district and community level, publicly demonstrating that the leadership is committed to performance management. In Ethiopia, many experts cite the performance of the health minister as critical to the rapid rollout of the country's health extension worker programme. Ensuring multiple donors were aligned with Ethiopia's national health plan required particular skill. Even though the Paris Declaration on Aid Effectiveness in 2005 attempted to align countries to this approach, strong local leadership is nonetheless required to ensure success.

Improved local management. Throwing money at healthcare problems will never be enough to meet a population's needs. The system must be equipped to deliver through local planning and through performance management that monitors outcomes and aligns incentives. In Iran, the *behvarz* have a simple wallchart that shows core health indicators at every health centre and that they use to guide action. In Brazil, meanwhile, the PSF teams are rewarded with an extra US\$20,000 if population coverage rates achieve 70 per cent in any given year.

Implications

We have looked at some examples of how countries have improved access to healthcare, and how healthcare systems have evolved. What can governments and donors learn from these success stories in order to help them meet the MDGs? We consider some provocative suggestions below.

Implications for countries

There is no escaping the fact that expanding access costs money. Health ministers will have to work with finance ministers to ensure access to the funding needed to deliver health. In today's financial environment, countries will also need to significantly increase the cost effectiveness of health budgets if they are to extend access. Cost effectiveness indicators generally prove effective in driving performance nationwide, and also allow the government to identify areas on which to focus.

There is a significant push toward developing integrated country strategies for health that can be supported by multiple donors. Countries need to develop a single, integrated plan that articulates (a) their healthcare goals; (b) the level of access required to achieve them; (c) the workforce required; (d) the necessary financing; (e) information and data support; and (f) how leadership and management capacity gaps should be covered. To create greater transparency we would suggest considering including measures of cost effectiveness by region in the strategy to help inform where additional investment is applied.

Those countries that have had success have set realistic targets, routinely collected and used data, instigated regular meetings and aligned incentives to drive performance. One specific idea that some countries have pursue is to create a dedicated Delivery Unit to drive these activities.

More broadly, building cohorts of leaders within the system is a crucial step in expanding the capacity to drive change. In Egypt and Namibia we have seen many efforts to build the capabilities of the leaders of the system, which have been positively received. One specific suggestion would be to consider dedicating a proportion of all healthcare funding for capability building.

Finally, there is a huge amount to learn from the successes (and failures) of other countries as they seek to develop their health systems.

Systematically sharing insights based on the results of comparable efforts would be extremely valuable. A small group of countries could start an effort right now to see how this might happen more effectively.

Implications for donors

Donors have played an important supporting role in improving healthcare in developing countries. Indeed donor funding has stimulated many of the real-life examples of cost-effective efforts to extend access to care. Such funding will be critical in scaling these models up from the district or regional to the national level. We recommend donors consider the following:

Support national priorities: a focus on strengthening national health strategies is always well received, but it needs to move quickly beyond rhetoric into a new way of cooperating. The first step is to support better strategic planning in order to develop cost-effective national health plans. This must be matched by a change in donor behaviour, including tying decisions about financing to national planning cycles, funding national priorities and gaps in the systems, and strengthening national monitoring and evaluation systems for reporting rather than using multiple parallel systems. At the same time as adjusting these processes to help countries develop their strategy, perhaps major donors might become more prescriptive about what would constitute a good national strategy, informed by best practice in other countries and other sectors.

Focus on increasing cost-effectiveness: increasing effective capacity often means making difficult decisions on where scarce resources should be allocated. Donors can support countries in making these decisions by providing resources to develop clear implementation plans. Donors can also sharpen their focus on cost-effectiveness by aligning with each other on the cost of services and publishing benchmark costs across countries. Such a focus would quickly create opportunities to reduce costs, especially for healthcare supplies.

Provide funding to build capabilities in country: donors face tough choices around where to put resources to get the most impact. However, significant amounts of aid continue to be spent on technical assistance, much of which is then channeled back to developed countries. Donors should consider earmarking a proportion of spending to support incountry capability building.

Sponsor learning from other efforts: reinventing the wheel is inefficient at the best of times; in health, the results can be fatal. Most low-income countries cannot easily justify the expense of knowledgebuilding, and many health ministers face a constant battle for resources with their finance colleagues given that the economic effect of poor health outcomes is less obvious than, say, investment in a new mine. Yet knowledge from Brazil is immediately applicable to Rwanda or Ethiopia and can create immediate benefits. ◆

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^{3.} World Health Organization Statistical Information System

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² William Hsiao and Peter S. Heller, "What should macroeconomists know about health care policy" in IMF Working Paper, International Monetary Fund, 2007

⁴ Taskforce on Innovative International Financing for Health Systems. Constraints to scaling up and costs. Working Group 1 Report. 7



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Chronic non communicable diseases, including heart disease, stroke, diabetes, cancers, and chronic respiratory diseases, have over the past several decades, been the leading cause of sickness and death, and the most costly health problem facing governments, communities, and companies throughout the Caribbean region, as in most other regions and sub-regions of the world.

Many initiatives have been taken in the Caribbean, aimed at slowing or reversing the tide of chronic diseases. The most definitive of these occurred in September 2007 when Heads of State and Government of the Caribbean Community (CARICOM) met and issued the "Declaration of Port of Spain: Uniting to stop the Epidemic of Non Communicable Diseases". This 15 point Declaration recognized in its preamble that chronic diseases can be reduced through collaborative programmes, partnerships and policies supported by governments, private sectors, nongovernmental organizations, and other social, regional and international partners.

Arising out of the Summit a decision was taken following a Caribbean Civil Society led Conference on chronic diseases held in September 2008, to establish a Healthy Caribbean Coalition as a civil society network for combating chronic diseases in the region.

The objective of the Coalition is to harness the power of civil society, in partnership with government, private enterprise, academia, and international partners, to develop and implement a plan for the prevention and management of chronic diseases, through the promotion of healthy lifestyles, the better management of chronic diseases, supportive environments, and empowered people.

The membership of the Healthy Caribbean Coalition is open to all voluntary associations and informal networks in the Caribbean (excluding those with an interest in tobacco) where individuals and groups engage in activities of public consequence, and include, nongovernmental organizations, faith based organizations, neighbourhood organizations, cooperatives, charities, unions, parties, social movements and special interest groups.

- In carrying out its mission the Coalition has identified specific objectives that are as follows:
- Contribute and participate in all aspects of advocacy as a tool for influencing positive change around CNCDs.
- Develop an effective method of communication for and among members of the coalition.
- Contribute to chronic disease public education campaigns and programmes.
- Monitor, evaluate and hold policy makers and stakeholders accountable.
- Support for Caribbean Wellness Day which is held on the second Saturday in September annually throughout the
- region, as mandated by Heads of State and Government of CARICOM.
- Advocacy and support for chronic disease risk factor reduction through;
- tobacco control and implementation of the Framework Convention on Tobacco Control,
- increased physical activity,

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- improved dietary intake including reduction of salt and sugar, elimination of trans fats, and responsible alcohol use,
- enhanced detection and management of chronic diseases.
- Support of initiatives, plans and programmes at country and organization level.

The Healthy Caribbean Coalition has established a website at www.healthycaribbean.org. which has served as a significant means of communication around chronic diseases over the 14 months that it was set up, with some 7000 visits to the site in February 2010, of which 60% were from the Caribbean region.

Presentations have been made on behalf of the Coalition to Chief Medical Officers of Health and to Ministers of Health of the Organization of Eastern Caribbean States in which the importance and relevance of a strong and viable regional civil society organization was articulated as a critically important partner in meeting the challenges posed by the chronic diseases.

The Coalition is a member of the Agita Mundo Network which has as its main purpose to promote physical activity in the World. It is also a member of the Pan American Health Organization (PAHO) led Partners' Forum for Action on Chronic Disease and recently endorsed a Policy statement from the PAHO/WHO Regional Expert Group on Cardiovascular Disease Prevention through Dietary Salt Reduction, titled "Preventing Cardiovascular Disease in the Americas by Reducing Dietary Salt intake Population-Wide".

Finally, representatives of the Coalition provided progress reports of regional and international initiatives being made to address the challenges posed by the chronic diseases, at the recently held 16th Annual International Diabetes Conference, held under the auspices of the University Diabetes Outreach Programme, Jamaica,

The Healthy Caribbean Coalition is poised for further development and is well positioned to play a pivotal role as it brings a regional dimension to the efforts of civil society in combating chronic diseases.

For further information contact Professor Trevor Hassell at thassell@caribsurf.com or visit the coalition's website at www.healthycaribbean.org



Caribbean specific targets and indicators for the Millennium Development Goals: a progress report on the statistics submitted by member states

article by the Caribbean Community (CARICOM)

The Heads of Government of the Caribbean Community (CARICOM) issued the Nassau Declaration in The Bahamas in 2001: 'Health is the wealth of the region'. This Declaration put health squarely on the human development agenda in the Caribbean. The Caribbean has sought, since 1984, to consolidate its development planning and achievements in health through the framework of Caribbean Cooperation in Health which is now in its third year.

The Heads of Government, to further amplify the Nassau Declaration, tasked the Council of Human and Social Development (COHSOD) with the creation of a Caribbean Regional Taskforce on Health and Development. Its mandate was seen additionally as responding to the launch of a report by the Commission on Macroeconomics and Development. The consensus was that the Caribbean had special vulnerabilities and circumstances such as a fragile economic base, the transactional costs of negotiating health services and the environmental vulnerabilities of small islands and low lying coastal states.

The goals of Caribbean Cooperation in Health were seen as synonymous with those of the MDGs. The Commission on Macroeconomics and Development recognised that Caribbean states are not among the poorest of the developing world and certainly have attained many of the MDGs. The Commission therefore advocated for the recognition of the lifestyle and behavioural risk factors contributing to ill health in the Caribbean. It was this recognition that led COHSOD to advocate for, and evolve, the adjusted MDGs which they then designated Caribbean Specific Millennium Development Goals (CSMDGs).

The CSMDGs were adopted at the 17th meeting of COHSOD, which was held in Georgetown, Guyana in November 2008. The development of Caribbean Specific Targets and Indicators resulted from a decision at the 12th meeting of COHSOD held in Georgetown, Guyana in April 2005 which considered the status of the implementation of the MDGs; and '*endorsed* the view that the MDGs should be seen as an integrated framework and not as a set of individual goals.'

The 12th COHSOD had also, inter alia - 'Recommended that:

(i) the indicators be reviewed with regard to their relevance for the CARICOM member states;

(ii) an indicator on gender-based violence be included;

(iii) priority be given to the strengthening of the data collection systems including the system for the registration of births and deaths, and the training and retention of human resources.'

As a follow-up to the conclusions of the 12th COHSOD, the following

initiatives were undertaken -

- a meeting of United Nations Development Programme (UNDP) and the Caribbean Development Bank (CDB) which resulted in the production of one set of Caribbean-specific MDGs;
- a meeting of the Task Force on Gender and Poverty chaired by the United Nations Development Fund for Women (UNIFEM) and in which the CARICOM Secretariat as well as other regional organisations participated, convened in May 2005 which also resulted in the inclusion of targets and indicators reflecting genderbased violence and sexual and reproductive health and rights;
- a meeting of a Technical Working Group of Caribbean Statisticians to review the proposed indicators for the measurement of the Caribbean Specific Millennium Development Goals (MDGs) was convened by the CARICOM Secretariat and was funded by and held at the Caribbean Development Bank (CDB), in Barbados in January 2008.

The list of the Caribbean Specific Targets and Corresponding Indicators are in Box 1.

This paper seeks to introduce the specifically derived Caribbean MDGS and to explain the process of collecting and utilising them to describe the socioeconomic circumstances of the CARICOM area.

Progress report of the activity to compile the Caribbean Specific Indicators for the MDGs

The CARICOM Regional Statistics Programme is currently undertaking for its 2010–2011 Work Programme, the compilation of the Caribbean Specific Indicators for the MDGs. For these indicators, the data that is currently known is available is from Caricom for the years 2000 – 2007, (2000 being the base year to assess the achievements of the CSMDGs).

Data is normally available with a lag of approximately one to two years or even more depending on the indicator, hence the cut off point at 2007. This is with the exception of those countries with continuous labour force statistics relative to indicators related to unemployment where the lag for these indicators would probably be shorter.

Data availability was determined through past data submitted to the Secretariat by 18 member states excluding Haiti and the Cayman Islands, and from a review of publications and websites of these countries. Information from the UN website submitted by countries was also included.

Based on the above review, to date there are major gaps across all countries for the Caribbean Specific Indicators for the MDGs.

The exceptions include the following for the base year of data shown in 2000:

- All poverty indicators for Jamaica for Goal 1, Eradicate extreme poverty and hunger.
- Ratio of girls to boys in primary enrolment (Indicator 21 of the CSMDG) and ratio of girls to boys in secondary enrolment (Indicator 22 of the CSMDG) – Goal 3 were available for approximately 11 of the 18 countries.
- Proportional of employed persons by occupational group and sex (Indicator 28 of the CSMDG) 8 out of 18 countries – Goal 3.
- Under five mortality rate by sex (Indicator 37 of the CSMDG), infant mortality rate by sex (Indicator 38 of the CSMDG) and maternal mortality ratio (Indicator 41 of the CSMDG) - available for almost all countries – Goal 4.
- Unemployment rate by sex and for the 15-24 age group by sex (Indicators 84 and 84 (a) of the CSMDG) available for 7 of 18 countries – Goal 8.
- Telephone lines per 1,000 people (Indicator 86 of the CSMDG) available for 15 of 18 countries – Goal 8.

Compilation of indicators of the United Nations MDGs (the original indicators as identified by the United Nations) which were undertaken in 2007 showed the same pattern as for the Caribbean Specific MDGs Indicators.

Main Challenges

The following are some of the main challenges identified:

Box 1: Caribbean Specfic Targets & Inidcators

More data may be available within countries than is submitted to the regional office. This is a critical issue to be addressed if the CARICOM Secretariat is to coordinate and analyse the achievements of the MDGs/CSMDGs.

- There are definite gaps in the data due to absence of continuous household survey capabilities or specifically except for Jamaica the absence of surveys of living conditions on a continuous basis.
- General weakness in Administrative data sources implies missing data or very dated information.
- Weak statistical coordination at the national level relative to inertia in the submission of data from the producing agencies/line ministries to the central statistical office/bureau of statistics.
- Lack of harmonisation and inaccuracies in measurement of data that are used to compute the indicators.

Solutions being applied

- Regional training workshops were applied in the past and will continue in the future relative to the application of training in data compilation. These workshops entailed discussions of the metadata in use within countries, such as data concepts and definitions, data sources, method of computation, etc.
- National level seminars to strengthen coordination of line ministries, agencies and the national statistical offices were attempted in the past. Funding is not available to continue this thrust which can enable improvement in data availability.
- Continued assessment of data available in country from websites, publications and through country visits would be the main mechanism of collecting the indicators.
- A development project is being designed to enable harmonisation.
- Obtaining information submitted by countries to international organisations.

Collecting this data remains challenging and we are trying to put in place systems to eliminate the gaps. In some instances size of the country and availability of systems has been helpful and in others it has not been. We however feel that this project provides the opportunity to collaborate in the establishment of an efficient effective system which can have universal applicability across the region.

Goals **Targets** Indicators 1. Halve, between 1990 and 2015, the proportion of people who 1. Eradicate 1. Proportion of population living below the poverty line by Sex: 1(a). Proportion of households living below the poverty line, by sex of Head of extreme poverty fall below the poverty line. and hunger. Household. 1(b). Proportion of employed living in households with a household per capita income which is below the poverty line, by sex of head of household. 2. Poverty gap ratio, by sex. 3. Share of poorest quintile in national consumption, by sex. 2. Halve, between 1990 and 2015, the proportion of people who 4. Prevalence of under weight children under-5 years of age by sex. suffer from hunger. 5. Proportion of population below minimum level of dietary energy consumption by sex. 6. Proportion of households with access to electricity by sex of head of 3. Halve, between 1990 and 2015, the proportion of persons without access to basic services. household. 7. Proportion of households using pit latrines by sex of head of household.

Casta	T. mate	lu diastava		
Goals	largets	_ INDICATORS		
Z. ACIIIeve	4. Ensure that by 2015, children everywhere, boys and girls alike,	 Net enrolment ratio in primary education by sex. Proportion of students of school are attending primary school by say and grad 		
and secondary	schooling up to Form 5	9. Proportion of students of school are attending secondary school by sex and grade		
education	Schooling, up to Form 5.	form		
		10 Proportion of pupils starting Grade 1 who reach Grade 5 by sex		
		11. Net enrolment ratio in secondary education by sex		
		12 Proportion of students starting Form 1 who reach Form 5 in secondary school		
		hv sex		
		13. Proportion of students who complete secondary school at Form 5 with passes		
		in at least two subjects English (or official language of country), and Maths by sex		
		14. Literacy rate of persons 15-24 year olds by sex.		
		15. Proportion of students in secondary schools in 5th Form enrolled in science		
		and technical subjects, by sex:		
		15(a) Proportion of teachers trained in the area of gender sensitisation.		
		16. Proportion of schools implementing a gender-sensitisation programme.		
		17. Proportion of children in class above the average age of the class, by sex.		
		17(a) Proportion of children in class below the average age of the class, by sex.		
		18 Percentage of trained teachers in primary schools by sex:		
		18(a) Percentage of trained teachers in secondary schools by sex.		
		19. Average class size by grade/form.		
3. Promote	5. Ensure that, by 2015 pre-school age children have universal	20. Proportion of children attending early childhood education institutions, by sex.		
gender equality	access to early childhood education.	21. Ratio of girls to boys in primary enrolment.		
and empower		22. Ratio of girls to boys in secondary enrolment.		
women.	6. Eliminate gender disparity in primary and secondary education, preferably by 2005 and in all levels of education no later than	23. Ratio of girls to boys in tertiary enrolment.		
		24. Katio of literate women to men of 15-24 years.		
	2015.	25. Proportion of students who take mathematics and at least one of the Sciences		
	7 Eliminate gender disparities in income and occupational	26. Share of women in wage employment in the non-agricultural sector		
	opportunities at all levels and in all sectors no later than 2015	27 Average earned income (gross) of men and women, by occupational group		
		28. Proportion of the employed persons by occupational group and sex.		
		29. Proportion of seats held by women in national parliament.		
		30. Proportion of women holding office in local government.		
		31. Proportion of women in other decision-making occupations.		
	8. Reduce by 60%, the incidence of physical acts of gender	32. Incidence of reported physical abuse by sex of the abused.		
	based violence by 2015.	33. Number of persons per 1,000 population who have been victims of major		
		crimes, by sex:		
		33(a) Average age of victim of major crimes, by sex.		
		34. Number of persons per 1,000 population who have committed major crimes,		
		by sex:		
		34(a) Average age of offender who have committed major crimes, by sex.		
		35. Number of persons per 1,000 population who have experienced physical		
		violence in the past 12 months at the hands of spouse/partner, by sex:		
		35(a) Average age of persons who have experienced physical		
		violence in the past 12 months at the hands spouse/partner, by sex.		
	0 Deduce by 2015 all famous famous day have here here	26 Dereanters of actual account accors completed through the sourt array in		
	9. Reduce by 2015, all forms of gender based violence.	so, reidentage of sexual assault cases completed through the court process in		
		uie pase 12 months: 36(a) Average time (in months) it takes for a sevuel assault, assa to be		
		completely processed through the courts from the date of charge		
		completely processed unough the courts from the date of charge.		
Box 1: Caribbean Spe	cfic Targets & Inidcators			
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4. Reduce child mortality.	10. Reduce by two-thirds between 1990 and 2015, the under-five mortality rate.	 37. Under five mortality rate by sex. 38. Infant mortality rate by sex. 39. Proportion of children 1–4 years of age who have received complete immunisation coverage (BCG, 3 doses DPT, oral polio and measles). 40. Number of deaths of children through violence per 1,000 population under 5, by sex: 40(a) Average age of children under 5 who died through violence, by sex. 40(b) Number of perpetrators responsible for the death of children under 5, by sex. 40(c) Average age of perpetrators responsible for the deaths of children under 5, by sex. 		
5. Improve maternal health.	11. Reduce by three-quarters between 1990 and 2015, the maternal mortality ratio.	41. Maternal mortality ratio.		
	12. Universal access to reproductive and sexual health services through the primary healthcare system by 2015.	 42. Proportion of births attended by skilled health personnel. 43. Proportion of contraceptive demand satisfied. 44. Adolescent (10–19) fertility rate. 45. Proportion of adolescent (10–19) attending ante-natal care clinics. 46. Number of women aged 15–49, per 1000 women of this age group, contracting sexually transmitted infections by type: 46(a) Number of women 15–49, per 1,000 women of this age group treated for sexually transmitted infections by type 		
6. Combat HIV/AIDS malaria and other diseases.	13. Have halted by 2015 and begun to reverse the spread of HIV/AIDS.	 47. HIV prevalence among pregnant women aged 15–24. 48. Condom use, rate of contraceptive prevalence. 48(a) Condom use at last high-risk sex, by sex. 48(b) Percentage of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS by sex. 48(c) Contraceptive prevalence rate. 49. Condom use as a proportion of overall contraceptive use for persons 15–24 in consensual unions: 50. Percentage of population 15-24 years in support of abstinence. 51. Ratio of school attendance of orphans to school attendance of non-orphans 14 and under. 52. Proportion of children orphaned by HIV/AIDS by age group. 		
	14. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.	 53. Prevalence of malaria by sex and age: 53(a) Death rates associated with malaria by sex and age.; 54. Proportion of population in malaria risk areas using effective malaria preventative and treatment measures. 55. Prevalence of tuberculosis, by sex and age: 55(a) Death rates associated with tuberculosis, by sex and age. 56. Proportion of tuberculosis cases detected and cured under DOTS. 57. Prevalence of Dengue, by sex and age: 57(a) Death rates associated with Dengue, by sex and age. 58. Prevalence of selected chronic non-communicable diseases by sex and age: 58(a) Death rates associated with selected chronic non- communicable diseases by sex and age; 		
7. Ensure environmental sustainability.	15. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.	 59. Proportion of land area covered by forest. 60. Ratio of area protected to maintain biological diversity to surface area. 61. Energy use (kg oil equivalent) per US\$1 GDP (PPP); 62. Carbon dioxide emissions (per capita). 63. Proportion of population using solid fuels by type of tenure. 		

Box 1: Caribbean Sp	ecfic Targets & Inidcators x	
	16. Halve by 2015 the proportion of people without sustainable access to drinking water and to improve sanitation.	 64. Proportion of population with sustainable access to an improved water source. 65. Proportion of population with access to improved sanitation facility, urban/rural.
	17. Have achieved by 2020 significant improvement in the lives of at least 70% of persons living in poor communities.	66. Proportion of households with own dwelling.
	18. Ensure the availability of a vulnerability index for the Caribbean which is sensitive to economic, social and environmental threats within the next five years.	67. Percentage of coral reefs destroyed by human activity and by natural disasters68. Incidence of natural disasters.69. Economic losses resulting from natural disasters.70. Social dislocation resulting from natural disasters.
8. Develop a global partnership for development.	 19. Develop further an open ruled-based predictable, non- discriminatory trading and financial system. 20. Address the special needs of the Least Developed Countries, LDCs, (includes tariff and quota free access for LDCs' exports; enhanced programme of debt relief for HIPCs and cancellation of official bilateral debt; and more generous programmes of debt relief for countries committed to poverty reduction). 21. Address the special needs landlocked countries and SIDS. 22. Deal comprehensively with the debt problems of developing countries, through national and international measures in order to make debt sustainable in the long term. 	ODA 71. Net ODA as a percentage of OECD/DAC donors' gross national product (targets of 0.7% in total and 0.15% for LDCs). 72. Proportion of ODA to basic social services (basic education, primary health care, nutrition, safe water and sanitation). 73. Proportion of ODA that is untied. 74. Proportion of ODA for environment in Small Island Development States. 75. Proportion of ODA for environment in Ind-locked countries. 76. Proportion of ODA for transportation in land-locked countries. 76. Proportion of exports (by value and excluding arms) admitted free of duties and quotas: 76.(a) Export of services as a proportion of total goods and services exported. 77. Average tariffs and quotas on agricultural products and textiles and clothing from developing countries. 78. Agricultural subsidies for OECD countries as a percentage of Gross Domestic Product for respective countries. 79. Cost of implementing sanitary/phytosanitary measures as a percentage of the total value of exports for which these measures are required. 80. Proportion of ODA provided to help build trade capacity. Debt Sustainability 81. Proportion of ODA provided to help build trade capacity.
	22 In conception with developing countries, develop and	82. Debt service as a percentage of export of goods and services. 83. Proportion of ODA provided as debt relief.
	implement strategies for decent and productive work for youth, women and especially vulnerable groups.	84. Unemployment rate by sex: 84(a) Unemployment rate for the 15–24 age group by sex.
	24. In cooperation with pharmaceutical companies, provide access to affordable internationally approved essential drugs in developing countries.	85. Proportion of population with access to affordable essential, approved drugs on a sustainable basis.
	25. In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.	 86. Telephone lines per 1,000 people. 87. Personal computers per 1,000 people. 88. Ratio of personal computers/laptops available for use in primary and secondary schools to number of students enrolled in primary and secondary schools (respectively). 89. Ratio of ministerial/departmental websites used in providing information to the population to the number of ministries/departments within the government. 90. Internet users per 100 population. 91. Cellular subscribers per 100 population.

Chapter 8

E-health strategies for developing countries: the Commonwealth Secretariat's approach

article by Dr Joseph Amuzu Commonwealth Secretariat Tom Jones

TanJent Consultancy

Information is a core resource for healthcare systems, so every country needs good policies, strategies and plans to invest in information, communication and technologies (ICT) for health and healthcare. ICT and organisational change combine into e-health. For developing countries, e-health can include e-learning and m-health, using mobile phone technologies. E-health answers four main questions:

- What information is needed?
- When is it needed?
- What ICT is needed?

Which organisational changes are needed to realise the benefits?

These have many complex parts that change over time. This paper attempts to describe the issues that need to be considered in developing an e-health strategy.

n 2008, the Commonwealth Secretariat began to support countries with their e-health policies and strategies. The first three regions are East, Southern and West Africa, where countries have worked with the Secretariat to identify ways of dealing with these to meet their e-health policy, strategic and capacity needs. These were the first to request support. Initiatives with other regions are being discussed and planned. The Secretariat has developed several tools and methodologies for countries to use. They draw from the e-health experiences of WHO, the Bellagio Conference on e-Health, the EU, countries in the East, Southern and West Africa regions and other Commonwealth countries. These reveal several common themes to which countries can refer. However, differences between member states may be more important than the similarities, so developing e-health polices and strategies must reflect each country's realities, especially affordability, policies, strategies and capacity.

The E-Health Loop

This helps to set the links and context of e-health strategies shown in Table 1.

Using the E-Health Loop ensures that e-health activities form a sub-set of each country's health strategies and integrate with their strategies for general development. A set of templates and worksheets are available for users to complete after reviews by multi-disciplinary teams drawn from the health sector, ICT suppliers and other ministries. Policies, strategies and projects are always developing, so the templates fit into this loop as a continuous, supporting tool. Throughout the loop, the challenge is to identify and link the dependencies that enable each e-health project to contribute to the health goals.

Workshops in East, Southern and West Africa regions identified the need to disaggregate the e-health themes and complexities in the loop so people can deal with them separately and directly. Components can then link them together so that assessments and decisions can be reconnected and used to secure finance for individual e-health projects. Templates are in a simple Word table so people can change them easily to add, delete or modify themes and components to meet their specific needs. This report briefly summarises some of the main themes.

Fitting e-health into general development plans and health strategies

Several countries have viable ICT suppliers to the health market. Investing strategically in e-health offers opportunities for this sector to grow, with economic and development benefits and enhanced effects on people's health. This supports the WHO¹ approach that achieving the Millennium Development Goals (MDGs) needs:

- increased investment in health systems and services;
- improvement in the performance of existing healthcare resources;
- new ways to harness communities, NGOs and the private sector;
- specific initiatives to be designed to benefit the poor;
- other sectors must contribute to better health otherwise success will be limited.
 - ICT suppliers already provide a wide range of services to developing





Table 1: A sim	plified exampl	le of a temi	plate is the Asses	sment of Change Activities
				beine en enange neurinee

Activity	Volumes	Timescales	Possibilities	Details
Identify Stakeholders	Who, and how many?	Extends beyond implementation		How is it financed?
Engagement		How long for?		Who leads?
Stakeholder requirements		Before design and implementation	n Information specifications	
Procurement			Options	Link to financing
Programme management	How many projects?			Who leads?
				Links to governance
Project management			Links to other projects	How many project groups
Training	How many people?	How long for?	ICT? System users?	Types of training needed.
				Types of training available
Culture change	How many people?	How long for?	New clinical and	Sharing clinical
			working practices?	information between
				clinics
Benefits realisation	Who benefits?	How long to realise benefits?	Better access?	Who realises the benefits?
	How many people?		Better quality?	How do they do it?
			More efficient?	

countries and the forecasts are that these will expand², offering increasing opportunities for e-health. It is essential that services and solutions procured by the health sector fit their highest health priorities and are affordable. They should also be part of a context where expanding e-health capacity relies on generally available communications infrastructure and e-health needs may increase the demand for these services. It is essential that e-health projects integrate with initiatives of the ministries dealing with general ICT and other technologies and their general development plans.

International e-health initiatives may also be relevant for countries' ehealth strategies. The Africa Health Infoway (AHI)³ invests in 53 countries and provides access to health data for several hospitals and communities. This type of initiative has a direct impact on general development in countries and e-health strategies can take opportunities these offer.

This approach is sometimes called mainstreaming e-health and is easier to achieve at the beginning of an e-health strategy than part way through or near the end.

Engagement with health professionals and people

Engaging effectively with doctors and other healthcare professionals from the outset is critical for success.⁴ E-health is often an investment in the resources needed by healthcare professionals in their efforts to improve the effectiveness of their health programmes. Doctors and their colleagues' views on e-health as a tool that will provide the information and knowledge they need are an essential requirement of e-health strategies and help to provide the links to general health strategies.

E-health rarely succeeds without collaboration between people. It is time-consuming and requires leaders to know and meet the e-health needs of healthcare professionals and other users. Achieving this needs successful engagement with all relevant types of stakeholders. Engagement differs from consultation where it may be possible to disregard or dilute the response. Engagement also requires collaboration.

Leadership

Effective clinical, executive and political leadership is needed in order to:

- choose between competing options for e-health;
- fit e-health into a programme for all health investment;
- engage with stakeholders and partners;
- support the changes needed to realise benefits from e-health;
- rectifying things when they go wrong;
- manage and mitigate risk.

Thus, leaders, identify choices, take e-health investment decisions, achieve change and mitigate risk. All these depend on the knowledge of the possibilities and limitations of ICT in health.

- Leaders' attributes have been summarised by two gurus as:
- 'management is doing things right; leadership is doing the right things.' Peter F Drucker
- 'management is about arranging and telling, leadership is about nurturing and enhancing.' Tom Peters.

Part of the e-health strategy should be to develop leadership skills and knowledge needed to use ICT as an investment to achieve change and sustainable improvements in healthcare by developing an information culture in healthcare.

Lifecycles and timescales of some e-health projects, such as electronic health records (EHR) and e-prescribing can exceed ten years before net benefits accrue⁵, often exceeding the time span of ministerial and political appointments. In this context, ministers' roles are crucial to:

- put in place and support effective clinical and executive leaders;
- support collaboration between entities in mixed health economies;
- create and sustain collaboration between ministries;
- integrate e-health and its governance arrangements with other health and healthcare investment, avoiding the problems of e-health isolation;
- develop sustainable e-health projects and plans.

ICT possibilities

Leaders must know the potential costs, benefits and risks of a wide range of e-health opportunities for health. There are many components of ICT and organisational change and leaders must be aware of these. Table 2 shows some examples. It is not an exhaustive list of separate activities, but part of an integrated structure.



Leaders must enable e-health policy-makers and strategists to combine ICT possibilities in a way that is relevant to the health needs of their country There is no right or wrong way, provided it is clear.

In addition to the specific information requirements for health, ehealth also relies on general ICT themes and services. These can combine into a number of requirements such as:

- Communication networks across countries and within health facilities so health and healthcare professionals can share data.
- Systems architecture so that information is captured once and used as many times as needed.
- System functionality that ensures that information needed is provided and used easily when it is needed.
- Capacity and capability of resources, such as constant and stable electricity supplies, ICT facilities, people and organisations to succeed with e-health.
- Informatics, such as data definitions, healthcare coding models, such as ICD10 and SNOMED, and patient and health worker identifiers.
- Technical and semantic interoperability of information, systems, software, hardware, middleware and tools.

Affordability and finance

Affordability⁶ is possibly the main e-health constraint. Required funding must be made available to implement the life cycle of each project. Rather than wait until policies and strategies are complete to test them for affordability, and then discover that they are unaffordable, wasting the time expended, it is better to start the affordability and financing arrangements at the beginning of the e-health strategy.

The financial and economic environment of healthcare in developing countries is extremely stringent. Exposing it to extra risk or waste directly diminishes the value of the resources and increases the opportunity costs to other programmes. Consequently, the maximum net benefits from e-health, the differences between costs and benefits over time, must be realised over the shortest, feasible time scales. This probably requires e-health investment in proven and commercially available solutions that need relatively modest local development and implementation, not large-scale, long-term, high cost e-health projects. Proven e-health can increase the chances of realising net benefits over shorter time scales, so benefit realisation plans should use the experience of previous users. Proven e-health investments also tend to carry lower risks than projects that need significant local development, but they still carry risks.

In mixed health economies where governments, charities, NGOs and private healthcare operate, affordability is complex. Each healthcare provider in each sector can have affordability challenges to bring e-health to fruition. Stakeholder engagement should deal with an explicit, integrated affordability and financing plan.

Public-Private Partnerships (PPPs) are fashionable for ICT. These can be complex with risks and risk sharing often being unclear. E-health investment is a complex activity, and PPPs can add an extra layer of complexity. Generally, simpler financing and partnering are preferable to large-scale PPPs.

Change to clinical and working practices

E-health almost always results in changes to clinical and working practices as access to, and sharing information creates new opportunities. Change is essential to realising the benefits of e-health. The three main types of change are strategic, organic and process.

Strategic change includes new activities, performance and opportunities required by the health strategy. Organic change is informal, when healthcare professionals use their access to new and better information and choose to change some of their clinical and working practices to improve their own performance and the healthcare they provide to patients. Process change is more traditional and arises from formal changes from redesigned healthcare systems, such as hospital admission and discharge, making appointments and completing and managing records.

Successful, sustainable change is extremely demanding to achieve. It includes many stakeholders and begins before e-health policies and strategies are agreed. It continues in parallel to the operational phase of information systems. Just using a new ICT system does not automatically lead to change and benefits. A core goal is to create, develop and sustain a new information culture. Effective clinical and executive leadership is essential to successful change.

ICT priorities

When an assessment of the strategic requirements and e-health potential is completed and an affordability plan set, the focus shifts to choices and decisions about the ICT needed. The result is an optimal selection of the high benefit and affordable ICT services. It should contribute to improved interoperability, ICT and data standards, and health applications and activities. Governments will not be able to meet all ICT needs, so choices are inevitable. By bringing together several themes, the goal is to compile a realistic schedule of ICT projects. Core features are affordability, timing and technical feasibility within the skills available.

E-health investment plan

The e-health investment plan should show the agreed ICT priorities looking five to ten years ahead. It must extend well into the timescale beyond ICT implementation and into the benefits realisation timescales. This sets out the extra and redeployed resources needed to convert the ICT priorities into actions, achievements and benefits.

Conclusions

In e-health, big bang is not a good idea, but a big picture is essential for a step-by-step approach. E-health is complicated and inherently high risk, so breaking it down into manageable chunks, or a jigsaw, makes sense. However, it extends investment timescales, so defers the benefits too, which also increases risk. It can help with affordability by spreading the costs over several years, but the sustainable finance over the whole period is essential.

The challenge is to select the ICT and priorities in a timeframe and context where implementation is in a rational, feasible sequence that is consistent with capacity, affordability and opportunities.

None of the effort to develop e-health strategy is worth it unless benefits and net benefits are realised. Often, benefits are realised from changes in clinical and working practices, leading to improvements in performance. These take time and need the support of healthcare professionals. The plan should identify the main milestones, information dependencies and new skills needed to realise benefits. The plan should show the benefits for all stakeholders, including patients, carers and communities,

At its simplest, the strategy is to develop and employ more people with the required e-health skills and knowledge and expand the capacity of ICT infrastructure. It includes developing leadership, ICT priorities, general ICT infrastructure, change, e-health investment planning, implementation, benefits realisation and supply services, such as electricity.

Developing countries can succeed with e-health by harnessing the collective talent in the country, taking several, deliberate manageable steps, including capacity building. The Secretariat can work with developing countries to help them along their road.

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Chapter 9

Public-Private Partnerships

It is recognised that Public-Private Partnerships (PPPs) have an important role to play in helping to achieve the health-related Millennium Development Goals. These partnerships can focus on addressing health issues, delivering care and products or funding infrastructure projects such as hospitals. PPPs may also take many different forms. To cover this diversity, there are three separate articles that make up this chapter. The first looks at the development of the PPPs and how they function best to deliver social impact. The second explains the issues for government when considering PPPs for healthcare projects and the third article describes an example of how a PPP can be used to effectively address a healthcare issue.

Page 118 Public-Private Partnerships: harnessing the private sector's unique skills to enhance social impact Doan Hackley, Tim Ward and David Meredith, McKinsey & Company

Page 128 Key issues for governments wishing to use Public-Private Partnerships to deliver healthcare services Commonwealth Business Council

Page 137 An 'all-of-society' approach involving business in tackling the rise in noncommunicable diseases (NCDs) Kathrin Bauer, Olive Boles and Darian Stibbe

Improving Health Infrastructure to Meet Millennium Development Goals in Tanzania

anzania faces multiple challenges in improving health care as it strives to meet the Millennium Development Goals. The creation of public-private partnerships has been key in addressing some of these challenges. The Abbott Fund, the philanthropic foundation of the global health care company Abbott, has been engaged in a successful public-private partnership with the Tanzanian Ministry of Health since 2002 that is helping to make progress against these goals.

The partnership in Tanzania is focused on strengthening the country's public health care system to expand access to care for people across the country. Key areas of focus include modernizing treatment centers and laboratories, training health workers, and expanding access to HIV testing and treatment.



Patient receiving counseling and testing in one of the new physician offices at Muhimbili Hospital that ensures patient privacy during VCT

Initial work focused on upgrading facilities and systems at more than 90 sites throughout the country to improve voluntary HIV counseling and testing (VCT) services and prepare for the availability of treatment programs. This work included renovating outpatient clinics to ensure patient privacy during VCT, upgrading laboratories, donating laboratory equipment, and creating local hospital HIV management teams. More than 15,000 health care worker trainings were conducted to support these improvements. In 2007 the Abbott Fund also donated one million rapid HIV tests to support the Presidential effort to increase testing on a national scale.

At the same time, the Abbott Fund and the Ministry of Health identified Muhimbili National Hospital as a key focus for the initiative. Located in Dar es Salaam, Muhimbili is the national teaching and reference hospital. A new four-story outpatient treatment center was built, containing a training facility for students and hospital staff. The center was among the first to integrate HIV treatment into its other outpatient services, helping to mitigate the stigma associated with HIV status. The hospital laboratory building was modernized and computerized to provide accurate diagnostic testing that is crucial not only for lifelong monitoring of HIV patients, but for those with other chronic illnesses like diabetes. Hospital management received training to strengthen department organization and financial management, and a modern hospital wide IT system was installed that helps track inventory, prescriptions and patient health history.

As a result of these efforts, the foundation was laid to take advantage of HIV treatment programs supported by PEPFAR and the Global Fund. In 2007, nearly one in three people on HIV treatment in Tanzania were receiving care at facilities that have benefited from Abbott Fund support.

The next challenge identified by the Tanzanian Ministry of Health as a key barrier to scaling up HIV treatment was an aging network of public hospital laboratories that were incapable of meeting the demands of a growing wave of patients with chronic illnesses needing lifelong monitoring.

In 2007, Miles D. White, Chairman and CEO of Abbott, announced that the Abbott Fund would support the Ministry of Health effort to modernize every regional-level hospital laboratory across the country. The Regional Laboratory



Patient registration, laboratory tests and pharmacy prescriptions are all tracked electronically using the integrated computer system at Muhimbili Hospital

Modernization Project is constructing new laboratories or renovating existing laboratories at 23 sites over a three-year period, with the final lab anticipated to be completed by the end of 2010. These labs in turn provide support for 77 district hospitals, improving health care for millions of people with HIV and other chronic diseases across the country.



Map showing Tanzania's Regional Laboratory Modernization Project

To help address the severe shortage of local, trained lab professionals, the Abbott Fund is supporting scholarships for more than 100 students each year at the Bugando University College of Health Sciences.

Most recently, the Abbott Fund/Ministry of Health partnership has identified Emergency Medicine as a new area of focus.



Recently opened Tanga Regional Hospital Laboratory

Emergency Medicine is not a recognized medical specialty in Tanzania and there is no formal emergency medical service system.

As a result, patients admitted to public hospitals for acute conditions generally receive limited care until a specialist is available to provide treatment. The lack of emergency care has been recognized as a contributing factor to the country's mortality and morbidity rates.

In 2009, the first public Emergency Medical Department (EMD) in Tanzania to provide services meeting international standards was dedicated on the grounds of Muhimbili National Hospital. The building renovations, staff training and new equipment are supported by a grant from the Abbott Fund.

While the training and services provided at the new EMD will have an immediate impact in its region, the broader goal is to utilize the department as a training ground and create the first



New Emergency Medical Department at Muhimbili National Hospital

residency program in emergency medicine in the country. This will eventually help elevate the level of emergency care expertise in other hospitals in Tanzania.

Overall, the Abbott Fund has invested more than \$60 million to date to improve the health system and increase access to quality health care for all Tanzanians, demonstrating the important role that a public-private partnership can play in making progress against the Millennium Development Goals.





Public-private partnerships: harnessing the private sector's unique skills to enhance social impact

article by Doan Hackley, Tim Ward and David Meredith

McKinsey & Company

Bringing the efficiencies, discipline, focus and mindset of for-profit businesses to bear on the public and non-profit sectors is an old idea, but one that has gained momentum with the success and proliferation of public-private partnerships (PPPs) over the past 15 years in countries around the world.

Despite this success – or perhaps because of it – a growing sense has emerged that PPPs could accomplish even more. To do more, though, they need additional help from the private sector. And not just any help, but the right kind of help. A review of recent PPPs – shows that the most effective and most needed ways for the private sector to contribute to PPPs are to help strengthen governance and management, increase public awareness of goals and activities, and provide specific institutional capabilities to help deliver on the missions. Because non-governmental organisations (NGOs) and government agencies are often less well equipped to provide this expertise, support from the private sector has proved its worth in a wide range of PPPs.

Some for-profit companies approach participation in PPPs as a purely philanthropic endeavour. They view the benefit as a public relations one: improving their image among their stakeholders. However, PPPs can also create opportunities for a company's core businesses, increase its productivity, boost demand for its products and services, or provide a mechanism for joint investment and risk-sharing to create new markets or products. Furthermore, participation in a PPP can deepen a company's understanding of key markets and enable it to develop valuable networks for future business development.

PPPs can create a virtuous circle of mutual benefit for all concerned, including the private-sector participants that have traditionally been seen solely as benefactors, not beneficiaries. One of our most striking findings is that the most effective PPPs understand that they must make clear to companies how greater involvement can help them and create an environment to engage their private-sector partners more deeply. The recognition of the power of this virtuous cycle is growing, and we expect private-sector involvement in PPPs to increase further in the future. We also believe that new private-sector partners, from industries that have not yet participated widely in PPPs, will get involved, bringing new skills and capabilities to the table.

Although we expect that most of this growth will be beneficial, we caution that PPPs are not a one-size-fits-all solution and that they can carry significant costs. In some cases, other methods of collaboration will serve a given cause as well or better than a new PPP.

Overview of the PPP landscape

A number of compelling forces are bringing the public, social and private sectors together to collaborate in addressing major economic and social challenges. Public-private partnerships are one distinct form of this collaboration. This section sketches the recent history of PPP growth, outlines the reasons behind this growth, and highlights the four archetypes of PPP that have emerged.

The past 15 years have seen explosive growth in the number of PPPs seeking to tackle societal challenges (see Figure 1). Although definitions of PPPs vary, one study estimates that roughly 50 PPPs were operating in the late 1980s whereas by 2006 there were at least 400.¹ Other sources suggest that the current number could be far higher. Regardless of the exact number, it is clear that PPPs are operating in a wider range of sectors and levels than ever before.

A number of factors have driven the PPP boom. First, the partnerships were a response to many governments' perceived failure to provide access to public services, such as healthcare.² Advocates of PPPs

argued that, by acting together, the public, civil and private sectors could achieve much more than what any of them could accomplish alone. Second, the success of national PPPs inspired the creation of transnational ones to address challenges faced by more than one country.³ Numerous global calls to action, coupled with significant financing from the Rockefeller Foundation, the Bill and Melinda Gates Foundation (BMGF), and others, were pivotal to the accelerated use of PPPs as a development vehicle in healthcare.

To further develop our understanding of PPPs, we reviewed the extensive body of literature on PPPs and conducted more than 60 indepth interviews with officials from leading PPPs and other experts in the field. Their experiences and observations, along with our learnings and perspectives, inform the following report.

Growth of PPPs and the challenges it has raised

Although most PPPs are less than 10 years old, many of them have already had an impact beyond what either the public or private sector

Figure 1: History of private sector involvement

<1990 Multi-sector representation	1990–2000 Embracing the private sector	2000–today Making PPPs work		
 Role of non-governmental actors in traditionally public areas (e.g. environmental protection, health) develops and first collaboration with the private sector is initiated For-profit private sector's involvement remains marginal due to public sector's fear of conflict of interests 	 In light of globalisation/opening markets private sector seen as key contributor in public arena A collaborative approach to public topics is promoted and PPPs experience strong growth in popularity and numbers 	 UN continues to embrace private sector collaboration, developing systematic approaches and integrating partnerships institutionally Focus on improving efficiency and securing long-term sustainability and financing 		
Rio conference 1992: UN emphasises role of private sector in development				
between UN and private s	ces partnership ector as priority			
1998 forward: F PPPs in health, e 2000: Millenniur catalysing multi-	oundations (Rockefeller, Gates) fund e.g., GAVI, MMV n Development Goals defined, sector involvement			
	2005: The Commission for more private sector	for Africa Report calls partnership		
	2007: Business call action through core 2007: WHO DG calls with respect to cost-	for action focuses on business business activities for review of existing partnerships -benefit ratio		

Figure 2: Partnership is one distinct method for the public and private sectors to collaborate

Range of collaborations

From ...

- loose, ad hoc association
- discuss issues of mutual interest
- activities remain very independent

Examples:

- Chamber of
 Commerce
- Trade association

Partnerships are characterised by

- An agreed common vision
- Shared, mutually agreed goals
- Clear commitment and investment from all partners
- Formalized collaboration and shared decision-making

... to

- contractual or commercial arrangements
- one party provides the other with services in return for payment

Examples:

- Outsourcing
- Construction project

could have produced alone. They have raised awareness for their causes, made those causes priorities on national and international agendas, secured significant funding, and spurred the development of new products.⁴ In many cases, they have infused a private-sector mindset and culture – especially a focus on outcomes and performance – into efforts that had long been dominated by the public and/or civil sectors alone.⁵ The private sector provides about 50 per cent of health services in many African countries,⁶ which enables them to contribute significantly to public efforts to improve service delivery and health outcomes. Thanks in part to these innovations, access to health services among the poor and hard-to-reach in Africa is on the rise.⁷

Although PPPs can generate substantial benefits, these partnerships also carry real and often significant costs. These can include:

- the resources required to create and maintain infrastructure to service the partnership;
- the delays inherent in decision-making and coordination among multiple partners; and
- the time and resources required from all partners to learn how to work together and understand each other's priorities.

It is worth noting, of course, that PPPs are not the only form of publicprivate collaboration. As illustrated in Figure 2, these collaborations take many forms, from *ad hoc* associations to defined contractual or commercial fee-for-service arrangements.⁸

Furthermore, PPPs are not always the most appropriate or costeffective form of collaboration. For example, showing support for a cause or sharing information can sometimes be better achieved through a membership association, which allows partners to benefit from each other without having to incur significant governance or operational costs. Alternatively, a purely contractual relationship between buyer and seller may be more appropriate than a PPP if the only need to be addressed is a discrete product or service,

Nevertheless, PPPs remain an important and popular tool for addressing health challenges. Partnerships continue to be created to address specific issues. For instance, in October 2007, the US President's Emergency Plan for AIDS Relief (PEPFAR) and Becton Dickinson Diagnostics launched the Public-Private Partnership to Strengthen Laboratory Systems to improve medical labs in developing countries.

This proliferation of PPPs has led to some duplication of mandates and activities, and to a level of complexity that can be difficult to manage. Dr Margaret Chan, on taking office as Director-General of the World Health Organization (WHO), summed up these concerns:

'If you look at the number of partnerships the Organization has, I'm just surprised. How can we manage all these partnerships? The transaction costs are very high. We need to be honest with ourselves and ask the question, are all these partnerships still relevant? If not, either the partnerships have to change or we have to change or both of us have to change to be more relevant.⁷⁹

Many of those with the most experience dealing with PPPs believe it is time to take stock of the landscape. Although we do not anticipate widespread consolidation or termination of PPPs, we do believe that some 'creative destruction' will occur. More broadly, we believe that the main focus should now be on increasing the effectiveness of existing partnerships, not just creating new ones. One way to achieve this goal is for PPPs to take greater advantage of their private-sector partners' potential contributions. In a recent report, the Global Fund noted that 'the private sector has played an important role in the work of the Global Fund since its inception... yet we have only begun to realise the full potential of private-sector support for the Global Fund in terms of relevant management expertise, technical assistance and broader resource mobilisation.'¹⁰

Finding #1: Four archetypes for PPPs are emerging

PPPs themselves vary widely. Some are direct collaborations, such as Daimler (formerly DaimlerChrysler) South Africa's partnership with *Gesellschaft für Technische Zusammenarbeit* (GTZ), the German international cooperation enterprise. Others are autonomous organisations with permanent secretariats and budgets of tens of millions of dollars – such as GAVI and the Global Fund. Some involve as few as two organisations; others are large, complex multi-stakeholder partnerships. PPPs may be time-limited or of unspecified duration.

PPPs also vary in geographical scope. Some focus on a specific community or region – the African Comprehensive HIV/AIDS Programme (ACHAP) focuses on Botswana. Others, such as the Global Fund, are truly global in reach.

What all PPPs have, however, is a common vision, shared goals, investment from all partners, and a formalised structure with shared decision-making.

Our research has led us to conclude that, for purposes of classification, a PPP's overall objectives are its most important distinguishing feature. This insight enabled us to identify four distinct 'archetypes' of PPP:

- Coordination PPPs seek to harmonise policies, objectives, messages and relevant activities among a group of stakeholders. An effective coordination partnership helps produce clarity and consensus on what the stakeholders are seeking to achieve and what they need to do to get the job done. It also helps minimise duplication. Coordinating PPPs need not require members to subordinate completely their own actions to those of the partnership; rather, they ensure that the members' different activities complement each other in building towards a common objective.
- Funding PPPs consolidate financing for a specific issue in a single organisation. Effective funding PPPs ensure that resources are allocated effectively and strategically, and they prevent duplication of spending. They also work to bring in new resources by recruiting more partners to contribute funds or specific capabilities. Like coordination PPPs, funding PPPs are often high-profile advocates for their causes.
- Product development PPPs (often called PDPs) bring multiple stakeholders together to develop products or processes that no one partner could develop alone. For instance, a public-sector organisation might understand a given need but be unequipped to meet it, whereas a private company might have the technical knowhow to develop products for that need but have no understanding of the market or community where the need is most acute. By enabling organisations such as these to pool investments, share risk, and combine knowledge and expertise, PDPs promote successful research and development activities. PDPs are also often extremely effective at fund-raising to support their programmes.
- Delivery PPPs combine the on-the-ground capabilities of different partners to deliver products or services, often in remote locations. Successful delivery often requires a combination of logistical capabilities, infrastructure, local networks, and project management expertise that no single organisation possesses alone.

Of course, not all PPPs fit neatly into one of these four archetypes. We have observed that most PPPs at launch have objectives that fit fairly neatly into a single archetype. Over time, however, they may develop some of the characteristics of other archetypes, either through a conscious, strategic choice to take on new challenges that support their overall mission or as a result of subconscious 'mission creep'.

Finding #2: The private sector can contribute to PPPs in five ways

PPPs can benefit from private-sector contributions in five major areas (Figure 3).

Expanding PPP resources: Nearly all PPPs receive cash or in-kind donations from the private sector. However, private-sector resource support of significant magnitude is rare, especially when it comes to cash. For instance, private-sector contributions to the Global Fund totalled US\$45 million in 2007¹¹, only 2 per cent of total funding (and this sum includes money raised through Product RED and the TV show American Idol). Although private-sector contributions are growing at ~50 per cent per annum, they remain far below the long-term target of 10 per cent.¹² In contrast, the Global Fund receives US\$2.5 billion from governments.¹³

It may be that many of the initial targets set for private-sector cash contributions were unrealistic. Because companies must use their equity for operations, philanthropic cash donations are very expensive for them – much more so than product donations usually are. We have observed that, in many cases, the private sector is often not aligned with its public- and civil-sector partners on how resource contributions should be made. The companies are eager to make in-kind donations, but their partners only want monetary contributions that will allow them to procure the products of their choice.



Strengthening a PPP's governance and management: Private-sector representatives serve on the boards of more than 80 per cent of the PPPs we examined. Many PPPs have noted that private-sector involvement significantly improves their governance by bringing a greater focus on performance and accountability. Some PPPs have even mirrored the private sector by appointing independent board members. These independent members contribute their expertise, and because the PPP is not affiliated formally with their companies, they bring a neutral voice to discussions. Furthermore, their focus is solely on improving the PPP's performance, not on representing the interests of any constituent organisation.

In conversations with us, representatives of several large publicsector organisations highlighted the fact that their private-sector partners tend to work faster and expect results sooner than is typical in the public sector. Their presence therefore brings a greater sense of urgency to the activities of PPPs. While clashes can and do occur – especially in the early days – our interviewees stated that, in most cases, pushing the partnerships for more aggressive achievement of their goals is a net positive.

Adding a compelling new voice: All PPPs face two key challenges – raising awareness of their goals and efforts, and building a sense of legitimacy in the public mind. Here, the private sector can provide invaluable help. The public and civil sectors are easily seen as antibusiness or anti-growth. The private sector has credibility with specific audiences and access to specific channels that the other sectors lack and that is often invaluable for creating public support for a PPP's goals and methods.

For example, when the *Financial Times (FT)* featured a full page article on the role of Unilever in the global Public-Private Partnership for Handwashing with Soap (PPPHW), the initiative received not just publicity but also much-needed credibility with the *FT*'s

business-oriented audience.

Providing institutional capabilities: Private-sector companies can also make a major contribution to PPPs by applying their core institutional competencies to help achieve a partnership's objectives. For example, many private-sector companies have strong capabilities in managing service delivery, supply chains, and logistics skills that would be invaluable to delivery PPPs. Privatesector companies often have more extensive operations and infrastructure than PPPs have, and they are more adept at getting goods and services to the remote and resourceconstrained areas that many PPPs seek to serve. A common lament in the global healthcare arena is that Coca-Cola is available in even the most remote villages of the world, yet governments and NGOs struggle to get essential drugs, diagnostics, supplies and medical services to those same communities.

• Extending a PPP's reach and multiplying its impact: Private-sector involvement in PPPs often has unintended but beneficial consequences. Companies become involved to support a specific cause or help with a specific task, but their activities often create ripple effects that modify the company's behaviour and catalyse changes in other organisations. For example, the success of the Mectizan Donation Program (MDP) helped convince Merck to join other public-private partnerships, including ACHAP in Botswana. When companies engage successfully in PPPs, they serve as role models for other private-sector players, who then seek successful PPPs for themselves. For example, following Daimler's collaboration with GTZ to address HIV/AIDS among its workforce in South Africa, several other companies, including Volkswagen, established similar programmes.

Most PPPs tend, initially, to seek only one or two types of benefits from their private-sector partners. Over time though, as a PPP's work grows and its relationship with its private-sector partners deepens, private-sector contributions often broaden. For example, interviewees at the Global Fund noted that they first reached out to the private sector for help in improving their governance. More recently, though, they have looked to their private-sector partners to help countries apply for and implement Global Fund grants.

Finding #3: Recognising mutual benefits is key to success

Companies that engage in PPPs typically see their participation in one of two ways: as part of their corporate social responsibility (CSR) strategy or as core to their business. The PPP leaders we interviewed noted that when companies base their involvement primarily on their CSR strategies, their commitment to the partnerships is usually at the mercy of changing corporate priorities and their CSR budgets limit the scale of their contributions. By contrast, companies that see their PPP activities as core to their business usually have a deeper, more sustained commitment to the partnership's mission. As one Unilever executive noted, 'the private sector needs to replace guilt as its motive with the realisation that it brings something valuable to the table.' Some companies have even started to be explicit about expecting – and receiving – tangible benefits from their PPP involvement. As one interviewee put it, 'For us this has always been about the commercial benefit.'

However, some of the companies' public- and civil-sector partners may have to adjust their attitudes as well. Within the PPP community, some people still maintain that private companies should not profit from their participation in social initiatives. This view holds that the very nature of social responsibility is incompatible with tangible commercial benefits. Our interviews suggest, however, that many people have changed their minds because they have realised that commercial benefits need not come at the expense of a PPP's mission. On the contrary, allowing private-sector partners to reap commercial benefits helps sustain their participation and bolsters their contributions.

Once all partners recognise the critical role the private sector plays in a PPP's mission, everyone becomes more comfortable with the idea that the private sector will benefit. In our experience, companies can derive a wide range of business benefits from their involvement in PPPs. We highlight six of the major ones here:

- ▶ A better public image: Companies frequently engage in PPPs to improve their reputation. For example, 63 per cent of the Global Compact's members said that they joined to boost trust in their companies; nearly half also see membership as a way to improve their public relations.¹⁴ Similarly, many companies became members of the Global Alliance for Improved Nutrition (GAIN) because they believe that GAIN can position the food industry more positively as a part of the solution to malnutrition.
- ♦ A happier workforce: PPP participation also tends to be a positive influence on workforce morale and bolsters talent attraction and retention. For example, a TNT executive argued that 'the whole partnership [with the World Food Program] has given TNT a social soul.' Two-thirds of TNT's employees have actively supported the

partnership, which TNT believes has improved employees' perceptions of the company and reduced staff turnover.

- ▶ Greater productivity and access to resources: By participating in PPPs, many companies report having increased their own ability to supply goods and services. Partnerships can help improve the health and productivity of an organisation's workforce. Through its partnership with GTZ, Daimler South Africa launched awareness campaigns, introduced HIV voluntary counselling and testing programmes, and provided care and treatment to its workforce. This proactive effort to address HIV/AIDS helped maintain the health of its employees and prevent major productivity losses in its South African operations.
- New demand for goods and services: PPPs can help create new markets or expand existing ones, especially in areas where public and private-sector partners have a joint interest in increasing the use of certain products. For example, NetMark is a PPP aimed at malaria prevention in African countries. It works with its publicsector partners to create favourable market conditions for bed nets (e.g., by establishing quality standards for the nets and reducing trade barriers and customs duties). In addition, NetMark works with private companies to set up the infrastructure required to reach consumers through retail channels. It also provides free or subsidised nets to consumers who cannot afford them. Manufacturers say that NetMark has been critical in helping them build sustainable markets for bed nets, which would not have been possible without public-sector support and co-investment. In essence, NetMark is fighting malaria by creating suitable business conditions for private companies.

More broadly, companies that participate in PPPs contribute to building stable, healthy, and prosperous societies that represent long-term potential markets. As a USAID report has observed, 'international development is everybody's business,' because as 'incomes, education, and longevity rise in the developing world...the people at the origin of their supply chains may soon become significant consumers of their products.'¹⁵

- Sharing risk and investment: Some opportunities are simply too risky, or the required investment is too high, for companies to undertake alone. PPPs enable companies, NGOs, and government agencies to pool resources and share risks. For example, through the Global Alliance for Vaccines and Immunization (GAVI), vaccine manufacturers, philanthropic groups, and public-sector organisations jointly invest in the development and introduction of new vaccines for impoverished countries. GAVI's Accelerated Development and Introduction Plans (ADIPs) reduce the risk of developing new products by expanding the evidence base, communicating the value of the vaccines, and preparing the market for introduction. In addition, the ADIPs provide manufacturers with credible demand forecasting models.
- Bolstering knowledge and market understanding: In some cases, the public sector has a better understanding of certain markets than the private sector does. For example, the Foundation for Innovative New Diagnostics provides its private-sector partners with essential information on product demand, specifications, and nuances around care-seeking behaviour. This information helps the companies develop diagnostic products that best respond to patients' needs and market demand. Unilever finds that the training it offers government officials, as part of its contribution to the PPPHW, has significantly strengthened its public-sector networks.

Many of the public-sector executives we interviewed were adamant that a solid business case, based on benefits such as the ones just outlined, is essential to securing strong private-sector participation in a PPP. We believe that the stronger the business case for a company to join a PPP, the stronger their commitment to ensuring the partnership's success will be. Win-win is, increasingly, the new order of the day.

Hurdles still exist, however. For instance, guiding principles recently developed by the United Nations and World Economic Forum state that 'Collaborative efforts with the humanitarian community to alleviate human suffering should not be used for commercial gain'.¹⁶ There certainly is a risk that direct business benefits could undermine a company's philanthropic work. Pharmaceutical companies frequently face this dilemma – their efforts to defend patents in low- and middle-income countries draw such strong criticism that their programmes to provide life-saving drugs to poor nations for free or at cost are overshadowed.

Finding #4: Nine best practices to maximise the value of private-sector engagement

Many researchers have sought to define the factors that make PPPs succeed, and a number of best practices consistently appear throughout these studies. Here, we build on the literature and our own case studies to identify nine best practices that maximise the value of private-sector engagement in PPPs for the individual partners and for the partnership itself (see Figure 4).

Partner with a purpose: Many PPPs fail to leverage the full capabilities and expertise of their partners. This problem arises most often when the mission or objectives are unclear, or when the specific contributions expected from each partner are not defined. Therefore, PPPs should always 'partner with a purpose' by:

• Carefully judging whether partnership is the most appropriate form of collaboration. Given the inherent transaction costs, this is not always the case. Successful partnerships begin with a clear understanding of why the partners are coming together, why their objectives cannot be achieved (or not as effectively) through any other means, and why the benefits will outweigh the costs. • Outlining specifically what each partner will contribute in terms of resources, expertise and institutional capability to help achieve the PPP's objectives.

• Taking steps to monitor whether all partners are living up to their commitments.

- Value non-monetary contributions: Any PPP director will tell you that more money is always nice. However, the most progressive ones will say that money is often the least important contribution the private sector can make, because no matter where it comes from, its value is always the same. In contrast, a company's products, services and/or expertise are often unique and uniquely valuable to the PPP. Partnerships that do not leverage the expertise and capabilities of their private-sector partners fail to realise their full value. Private companies should therefore prioritise non-monetary contributions and constantly seek out new ways to leverage their expertise and institutional capabilities to support the partnership.
- Manage down transaction costs: The transaction costs inherent in PPPs can discourage certain partners, especially those in the private sector. Slow or time-intensive processes can be off-putting and dissuade new members from joining. Many business people also have a hard time adjusting to the public sector's instinct for extensive consensus building, believing that it gets in the way of 'getting things done'.

There is no way to get around this problem completely; some partnering costs are inevitable. However, these costs can and should be managed, both to improve the PPP's performance and to help attract more partners to the cause.

▶ Govern for the partnership: PPP board members are often representatives of the constituencies within the partnership, which creates a conflict for them: they must balance the interests of their company or organisation against those of the partnership. Moreover, most PPPs tend to restrict the private sector to a small number of board seats, which limits the potential value that different industries could bring to the governance process.

PPPs should move beyond this narrow model of board composition.

They should, instead, seek out a higher number of board members with the skills and knowledge to govern effectively, regardless of whether they are affiliated with a partner organisation or not. Equally important, all board members should work to ensure that their governance processes and decisions focus on what is best for the partnership rather than seeking compromise between the interests of different constituencies.

• Cherish the difference: Almost all of the interviewees acknowledged the difficulty of overcoming the culture gap that divides the public, civil and private sectors. This gap can create suspicion, mistrust, and even hostility and thereby significantly reduce a PPP's effectiveness. The most effective PPPs, however, marshal these differences to their advantage. They recognise that

Figure 4: dest practices for maximizing private sector engagement						
1 'Partner with a purpose'	2 'Contribute more than money'	3 'Manage down transaction costs'				
 Define a clear mission for the partnership and the relevant and complementary roles each partner will play in achieving this mission 	 Recognise that the private sector's potential contribution goes far beyond money Ensure all partners commit not only funds but also time and resources to make PPP work 	 Minimise transaction costs to balance public sector consensus building with private sector instinct to 'get things done' 				
4 'Govern for the partnership'	5 'Cherish the difference'	6 'Help everybody win'				
 Base board composition on contribution private sector can make to governance and not on quotas Ensure focus is on what is best for the partnership not on compromise 	 Value different perspectives Create processes to ensure all stakeholders' views can be aired while not requiring consensus for the final decision 	 Create and communicate a virtuous cycle of mutual benefit for all partners Engage the business side of companies (not just CSR) to harness their core competencies 				
7 'Share the love'	8 'Bring new partners to the dance'	9 'Evolution is essential'				
 Identify passionate leaders with-in partners to champion the partnership Broaden and deepen commitment to and involvement in the PPP in partners' organisations 	 Be creative in identifying which capabilities the private sector could contribute to partnerships and pro- active in engaging private companies who possess those capabilities 	 Treat change as an opportunity rather than a threat Continually evaluate and evolve the partnership in step with changing environment and new challenges 				

different perspectives are a significant part of the value that partnering brings; they improving deliberations, strategies, and implementation plans. Therefore, the PPPs seek to ensure that all partners maintain their basic beliefs despite working with people from different cultures, yet remain flexible enough to bridge cultural divides. A number of interviewees insisted, for example, that their private-sector partners must maintain the same emphasis on performance that they do in their own businesses.

To emulate the most effective PPPs, other partnerships need to develop processes that welcome broad input but do not require full consensus on the final decision. This approach would enable them to combine the best of both worlds – everyone has a say, but once all perspectives are heard, a final decision is made in a timely manner. The discussions will sometimes be intense, but the process itself is a chance for all partners to get to know one another better and learn to share each other's concerns.

Help everybody win: As we have discussed, the belief that it is wrong (or at least unseemly) for private companies to benefit from their philanthropic activities is outdated. The stronger the business case for participation in a PPP, the more likely private-sector partners will dedicate and sustain strong support for achieving the PPP's objectives.

Therefore, PPPs should seek to create a virtuous circle of mutual benefit. They should articulate to potential private-sector partners the business rationale for engaging in the PPP. And they should ensure that that they work directly with the profit-generating segments of their private-sector partners so that they have access to each company's most valuable capabilities.

However, getting the mix right is the private sector's responsibility as well. Companies need to demonstrate that whatever benefit may accrue to their bottom line from participation in a PPP is never gained at the expense of the PPP's mission.

Share the love: Without passionate individuals, few partnerships would get off the ground. However, relying too heavily on the passion of a few individuals leaves PPPs vulnerable to personnel changes. Sustaining a PPP's energy level over time requires the participation of passionate individuals, not just on the PPP staff but throughout all partner organisations. Broadening and deepening the partner organisations' involvement helps ensure the sustainability of their commitment. In addition, it ensures that the PPPs benefit from the widest possible range of capabilities among their partners' employees.

Furthermore, everyone involved needs to learn to share the credit and promote the achievements of their PPP colleagues. Every cause needs heroes. The individuals contributing to a PPP – from all organisations – should be recognised and rewarded for doing so to encourage them to continue and to help them serve as role models for others.

Bring new partners to the dance: Currently, most PPPs involve only a small fraction of the companies that could add value to their efforts. As a result, they miss out on a wealth of beneficial privatesector knowledge and capabilities. Instead, PPPs should constantly evaluate the capabilities and expertise they need and seek out new partners accordingly. It is not enough to wait for organisations to come knocking.

It is also important for PPPs to look beyond the 'usual suspects' to other potential partners, both large and small. Although big companies have a lot to offer, smaller ones may be able to offer unique products, services, or expertise that large companies cannot match. Moreover, smaller local companies are likely to better understand the market. And while they may not get the same amount of publicity as larger organisations, they may have just what a PPP needs – and they may be eager for an opportunity to help their local communities.

Evolution is essential: The world that PPPs exist to serve is continually changing, and so are the priorities, capabilities, and outlooks of partner organisations. PPPs must learn to change with them.

Therefore, turnover among partners should be seen as normal. As the mission, context, and goals of a PPP evolve, the organisation will require new capabilities from new partners. At the same time, the contributions of its existing partners may become less relevant. PPPs

> should keep careful track of their needs and be prepared both to seek new partners and to end relationships with old ones as circumstances warrant. Similarly, private-sector partners should be clear about their own exit criteria. They should be ready to leave a PPP if they can no longer maintain a sufficiently high level of commitment or if their contributions are no longer relevant to the partnership's needs.

Conclusion: the evolving PPP landscape

The PPP model – a relative newcomer to addressing social challenges – has already proved its worth; these partnerships have emerged as an effective way to meet real needs. All evidence



Box 1: A spectrum of delivery models

In many health systems – across all regions of all income levels – we have observed increasing interest in healthcare delivery models in which private-sector partners take on roles that can include clinical service delivery, system management, and even some responsibility for outcomes achieved. These delivery models, which are often known as PPIPs (public-private investment partnerships), involve longer-term, contractually based healthcare delivery by the private sector.

A spectrum of delivery collaboration exists, as illustrated in Figure 5.

Of course, private-sector companies have for many decades acted as core suppliers to public health systems. It has also become common in many systems for the private sector to act as financier for specific projects, such as hospital buildings; in many cases, they also take an ownership stake and sometimes provide non-clinical services, such as maintenance and administration. Similarly, many (but not all) systems use private firms to deliver significant clinical services, such as hospital care.

In some publicly funded systems, more recent developments have moved further out on this spectrum; these are the PPIPs. In some cases, for example, private partners take on a comprehensive management role, delivering a fixed set of health services to a population. Examples include Lesotho (where the partner contracted to deliver and operate a public hospital and primary care clinics to provide improved overall service) as well as parts of Spain (in Valencia, the partner built and runs integrated health services for a defined population).

The clearest example of the private sector taking an outcomes delivery role is from the Turks and Caicos Island. As part of a wider health reform there, the government has given contractual incentives to a private partner to take a population health approach.

The advantages of PPIPs to public systems come largely from their ability to create contractual incentives for the private partners to act in ways that are beneficial to the system (for example, by spurring both efficiency and quality). At the same time, the public system retains the right to define overall objectives and the metrics that will be used to assess their achievement.

Health systems do not need to choose one position on this spectrum for all partnerships; a range of models can and do coexist. We have, however, noted increasing interest from both public and private organisations in PPIPs and expect this trend to continue.

suggests that the model will and should continue. However, innovation and flexibility must continue to be its hallmarks if the PPP model is to maximise its value.

We are concerned, however, that the very success of the model may become a liability if the explosion in the number of partnerships leads to a glut of overlapping and duplicative organisations. This risk appears very real. Although partnership can be a powerful tool for addressing social challenges, it have been over-emphasised recently and – as the transaction costs become increasingly clear – stakeholders on all sides are likely to explore other ways to work together.

We are also concerned that many PPPs that were originally intended to be time-limited appear to have become permanent institutions. We would prefer to see many PPPs accomplish their original mission or create self-sustaining mechanisms to do so, and then declare 'mission accomplished' and cease operations. PPPs should see success as equivalent to obsolescence.

These caveats aside, we expect to see continued growth in PPP formation and activity, and believe that this is a broadly positive trend. We do, however, expect that the PPP landscape will change somewhat. As one interviewee put it, 'We are on the cusp of a change in mindset' – future success is increasingly being linked to greater, deeper, and broader private-sector involvement. In particular, we believe that a growing number of PPPs will seek help from the private sector in delivering services and products, improving their logistical operations, and scaling-up existing initiatives. Local talent (from both large multinationals and smaller, local companies) is a large and relatively untapped resource that we expect to see become more involved.

Finally, as the private sector increasingly comes to appreciate and be comfortable with the value of PPPs, we expect to see companies making more strategic use of these partnerships. And as companies begin to identify and realise these opportunities, we expect to see a shift in the private-sector mindset, from viewing their resource contributions to PPPs as 'donations' to regarding them more as strategic investments. While we would not wish to see the private sector lose all sense of the social value of their contributions, we believe that this mindset shift can help strengthen 'mutual benefit' as an underlying principle of strong partnerships. ◆

Acknowledgements

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EDCTP: Big strides towards a true Partnership

Established in 2003 as a European response to the global health crisis caused by the three main poverty-related diseases (PRDs) namely HIV/AIDS, tuberculosis and malaria, the European and Developing Countries Clinical Trials Partnership (EDCTP) is proving to be a promising partnership model. The Partnership joins European national research programmes on poverty-related diseases, and in collaboration with African counterparts, develops new clinical tools against HIV/AIDS, malaria and tuberculosis.

Currently EDCTP is a partnership between 14 European Union member states plus Norway and Switzerland with 47 sub-Saharan African countries. EDCTP is succeeding in transcending traditional research based on colonial affiliations and in breaking down

cooperation.



The context of the EDCTP programme is the dramatic health

Africa, and the concerted action of the European Union to fight the three main poverty-related diseases. By combating these diseases, EDCTP jointly targets the goal to fight against poverty as well as the three Millennium Development Goals on health.

EDCTP aims to accelerate the development of new or improved

tuberculosis, with a focus on phase II and III clinical trials in sub-Saharan Africa. To achieve this, EDCTP offers integrated grants that focus on clinical trials (which are the principal function of EDCTP) as the core integrated with networking and capacity development.

Way of working

EDCTP funded activities are based on the following components:

- Networking between and coordination of European national research and development programmes with their partners in the south
- Supporting relevant clinical trials
- Networking and coordination of African national programmes
- Strengthening the African capacity in this field

In the funding environment, EDCTP seeks to shape a common research strategy involving EU Member States, and to explore further streamlining through involving Public Private Partnerships (PPPs), Product Development Partnerships (PDPs), industry and

activities and Development Aid activities.

The EDCTP principle of requiring at least two European member states and two African countries to collaborate in projects and the encouragement of third-party participation has been very much instrumental in the formation of various consortia. The formation or support of these research consortia is very cost-effective and fosters strong synergies.

Sharing science

Establishing genuine partnerships is a hallmark of EDCTP and one of its most significant achievements. The EDCTP model, in which capacity development and networking are integrated, facilitates rational utilisation of created capacity and minimises redundancy

and proliferation of new collaborations and has been acknowledged by many as a powerful and exemplary approach and copied by others.^{1,2,3} Furthermore, the pairing of well-established centres with less endowed ones is proving very effective and has been extended

These networks, divided into Central, Eastern, Southern and Western African regions based on regional economic blocks, comprise institutions of varying and complementary capacities that work in synergy to conduct clinical trials, training, south-south mentorship and capacity development in the continent. It is realised that for the networks to be effective and sustainable they must not only work closely with each other, but also with already existing networks. Moreover, there is a strong need for garnering the support and commitment of African leadership and funding. This calls for the various global initiatives to work closely together and with the African governments and regional bodies to ensure effective, synergistic programmes and to ensure sustainability.

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Notable among the various other consortia that work with EDCTP support include The Malaria in Pregnancy (MiP) Consortium and the Pan-African Consortium for the Evaluation of Antituberculosis Antibiotics (PanACEA). The MiP Consortium conducts clinical trials for improving the management of malaria during pregnancy in terms of evaluation safety and efficacy of drugs for prevention and treatment. The PanACEA is a consortium that was created by EDCTP to conduct a series of cooperative trials that together seek to shorten and simplify the treatment of drug-sensitive tuberculosis. This consortium, which brings together many stakeholders besides EDCTP, includes researchers and funders from public and private institutions such as the Bill and Melinda Gates Foundation, Global TB Alliance, pharmaceutical companies and academic institutions from Africa, Europe and USA.

EDCTP is working closely in many projects with other like-minded organisation including the TB Global Alliance, AERAS Global Tuberculosis Vaccine Foundation, Medicines for Malaria Venture, European Vaccines Initiative, Microbicide Development Programme and International Partnership for Microbicides among others.

African Empowerment

Ensuring that research effectively addresses the needs and priorities of the developing countries by encouraging African ownership and leadership is critical. EDCTP partnership structures which are the Partnership Board (PB) responsible for developing the strategy, and the Developing Countries Coordinating Committee (DCCC) responsible for identifying the needs and gaps, have African representation. EDCTP has made capacity building and African participation mandatory in all its clinical trial activities. It supports the establishment and strengthening of National Ethics Committees (NEC) and Institutional Review Boards (IRB). In collaboration with the World Health Organisation, EDCTP supports strengthening capacity of African national regulatory framework including the African Vaccine Regulatory Forum (AVAREF) activities. EDCTP has been responsible for supporting the establishment of the Pan-African Clinical Trials Registry (PACTR) run by South African Cochrane Centre, the only African registry with WHO primary clinical trial registry status. PACTR is responsible for the registration of all clinical trials in Africa to mitigate the under registration of trials in the region.

By the end of 2009 EDCTP had funded 129 projects worth around 250 million Euros which involve 136 institutions from 26 sub-Saharan countries, 76 institutions from 16 European countries and 40 other partners – non-profit organisations and private sector partner. Of all EDCTP-funded projects, 68 % are led by African project coordinators.





Among the positive outcomes of EDCTP funded trials is the CHAPAS trial in Zambia that has contributed to the FDA approval and WHO prequalification of Triomune Baby/ Junior, a fixed-drug combination formulation for the treatment of HIV in children. This has made it possible for the drug to be available under programmes such as US President's Emergency for HIV/AIDS Relief (PEPFAR) and Clinton HIV/AIDS Initiative (CHAI).

Long-term commitment

The response of EDCTP to the burden of HIV/AIDS, tuberculosis and malaria is simple and pragmatic: the existing national European

and integrated. Furthermore, the overall environment for carrying out clinical trial activities in Africa has to be improved and African scientific leadership in the conduct of these trials promoted.

The fight against poverty-related diseases is a long-term endevour requiring equally long-term commitment and investment. The current remit of EDCTP is to support mainly phase II and phase III clinical trials of the three PRDs, and capacity development in Africa.

broaden its base to include related activities that would add value to

include phase I clinical trials in Africa and phase IV post registration studies, as well as research into health services that will include exploring how best to deliver new products through health systems.

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Value of EDCTP funded projects from 2003 to 31 December 2009

Key issues for governments wishing to use Public-Private Partnerships to deliver healthcare services

The Commonwealth Business Council

The delivery of good healthcare services is seen, by most governments around the world, as one of the fundamental responsibilities to its citizens. In many countries the improvement of healthcare encompasses far more than just building hospitals and providing medical staff. It also encompasses things such as the provision of clean water, sewerage, removal of refuse from streets and education in areas such as HIV, personal hygiene, diet, etc. With so many calls on the resources of health ministries it is often the case in both developed and developing countries that difficult choices have to be made as to where those resources are deployed.

The current economic climate has made things even more difficult for increasingly cash-strapped governments. With short term strictures on spending long term financing solutions are becoming more appealing. Over the last 15 years one of the options that those responsible for government service and infrastructure provision have been exploring is the use of Public-Private Partnerships (PPP). These, basically, enable governments to get infrastructure now and pay for them over time. In addition, it is possible to use private sector expertise to deliver services. Both factors appeal to governments but particularly in developing countries and emerging markets. These often suffer from the twin perils of insufficient and/or old infrastructure and lack of government managerial skills. Long-term private sector finance can help to pay for modern infrastructure and private sector know how on the service delivery side can help government learn how to develop more efficient utilisation of the infrastructure.

In healthcare PPP has been used, primarily, for the building of hospitals but also for community healthcare facilities, ICT provision and specialist units. PPP can deliver great benefits in health but equally it is not a magic bullet for struggling health services. In addition, in some countries the involvement of the private sector in something as fundamental as health delivery is a source of concern. There are concerns that access to health will become something that only the well-off can afford. Canada, for example, which has a fairly new PPP health programme, is very wary of private health providers and worries about ending up like the United States where over 40 million people do not have access to healthcare. Yet the Canadian system is under strain, especially over matters like accident and emergency waiting times. Improving this has little to do with the provision of better infrastructure, which is what the Canadian PPP programme has focused on, but everything to do with the provision of better services.

Although the United Kingdom has achieved much success in delivering healthcare facilities through PPPs, this level of success is not seen in many other countries. It is felt that many countries need to develop more effective/appropriate PPP strategies to address the complex nature of PPP healthcare projects.

For developing countries there are several problems that make starting PPP programmes particularly difficult. These include a lack of government capacity; access to capital; unwillingness of local contractors to take long-term risks and the lack of a local services industry.

The key issue that will be discussed in this paper is the role that PPP can play in healthcare and the best ways for governments around the world to get their PPP healthcare programmes started in order to deliver better healthcare services to their citizens.

The importance of defining PPP

Firstly, it is important to step back and try to define what PPP is and this is not as straightforward as might be thought. The problem of definition has dogged the international market for over ten years and, in many countries there is confusion between the United Kingdom-style Private Finance Initiative model (which has become the international standard in many countries), simple outsourcing, privatisation and concessions. Healthcare is a very controversial area in which to involve the private sector. It touches citizens' lives in a way that is unlike any other government provided service. Those opposing, often for political reasons, PPP, find ready support in the press and amongst the public against PPP. The medical profession itself is often amongst the key opponents of a PPP approach.¹ Politicians are often more nervous about introducing PPP in healthcare than in any other sector for reasons that will be explored later. The reason for being clear about the definition of PPP is so important because it is the exact structure of the deal itself that is often key to explaining the benefits and understanding and answering the various criticisms from the different parties concerned about the process.

PPP versus outsourcing, privatisation and concessions: the importance of clarity in definition

There are many ways for governments to work with the private sector and, in some countries these are all likely to be called PPPs. Many of these arrangements will have a public/private interface but they may not demonstrate a real partnership approach where all the parties involved see real benefits and, crucially, the government remains in control of the output. Having the private sector get involved in some aspect of government does not make it a public private partnership.

In addition, the existing international market has a certain understanding of what PPP is that may not exactly intersect with the way it is being discussed in any one country. Clarity, therefore, when talking about a proposed PPP project or programme, is important to avoid confusion. In addition, being clear on the exact aspects of the public/private interface can defuse some of the criticisms PPPs receive from opponents or those who just do not understand the topic. PPPs can be seen as just a way to procure infrastructure and services differently. Many stakeholders, therefore, want to know why the government is changing the way it procures projects. To explain this to the non-expert (for example: politicians, the press, the public or unions) an understanding of how government projects are procured normally is needed. Something that most people do not process. Only by having this understanding of the limitations of conventional government procurement can the benefits of a PPP approach be appreciated.

So how does a typical PPP work when used for delivering infrastructure and services? The public sector contracts with the private sector to deliver services (which probably, but not always, involve the construction of physical infrastructure) on its behalf for the long term, where the private sector's capital is at risk and the payment of the private sector is linked to the performance of the services to levels set by government.

At the end of the contractual period, the operation of the asset and delivery of services reverts to the public sector, which can either run them themselves or let them out under another contract.

PPP versus outsourcing

In many countries the provision of some government services is given to the private sector in an outsourcing contract. In some countries these are referred to as PPPs. Typically these would be things such as household waste collection, ITC provision, maintenance services, etc. These are not true PPPs because they are usually short term, the private sector does not have any capital at risk and there is probably not a performance-based payment mechanism.

PPPs versus privatisation

PPPs are sometimes seen as a privatisation of services. This may be correct colloquially but it is misleading as privatisation is fundamentally different from PPPs.

With privatisation one takes a state-owned entity, such as a utility, and drops it into the private sector. The arrangement is permanent and government has very little control over the quality of the service delivery except, perhaps, for some regulatory control of the pricing of tariffs. This has issues for developing and emerging economies who may be, rightly, concerned about national assets being bought up by foreign, often first world, companies.

PPPs, by contrast, are not a permanent state of affairs. The private sector agrees to run PPP project for a set time (usually 25 to 30 years). After that, the project goes back to government control. So, unlike privatisation, PPPs give government more control and do not involve the permanent loss of a state asset. PPPs also tend to be used to deliver smaller projects (e.g. a school, a water plant), whereas privatisation is used for whole utilities or companies (e.g. a national telecoms company, a state concrete company).

PPPs versus concessions

There is also a distinction that can be drawn between most concessions and 'real' PPPs since many of the 'PPPs' being discussed and implemented in many countries are actually concessions, not PPPs.

Concessions are a type of PPP but many concession projects miss some of the core drivers for a real PPP. These include: improving service quality, especially for non-revenue generating assets (as many hospital projects tend to be), better strategic planning by government and greater control and oversight over the private sector delivery.

In a concession, the government typically says to the private sector, 'build us a road and we will let you collect tolls on it to repay your investment, cover your expenses and give you a profit'. As a result, this model tends to be used for bridges, roads, water, power and anything else that can generate revenue. This system is very old and was used, for example, to build the Suez Canal in the 19th century. It is still popular in continental European countries such as Spain, France and Italy, which is why construction companies from those countries such as ACS and Cintra are so active in the global roads market.

The problem with many simple concession models is that while they may be convenient for government ('we don't have to build, pay for or manage these roads') and good for the private sector ('we have a chance to make a lot of money') they are not always good value for the citizen ('I have to pay higher tolls and the road isn't properly maintained').

The United Kingdom's Public Finance Initiative (PFI) programme addressed these concerns by making the provision of better public services the key objective of PPPs, especially for non-revenue generating services such as hospitals, where the private sector operator is typically remunerated using government funded monthly service payments. If the private sector operator does not meet specified performance standards, penalty regimes will often limit the flow of such payments.

Finally, with a privatisation and most concessions a citizen must deliver his or her complaints about the delivered service to the private sector operator/owner. If it is a PPP, the citizen takes the complaint to the government since the public sector is still responsible for the private sector operator's service delivery.

A properly constituted PPP, therefore, balances the needs of government, the private sector and the citizen to ensure that their interests are protected. This is something that is missing from a lot of so-called PPP projects around the World and results in understandable anxiety on the part of politicians and taxpayers.

The advantages of a PPP

Governments needs to upgrade old infrastructure, build new infrastructure, maintain new and existing infrastructure and use this infrastructure to deliver top class services to the citizen, to a consistent standard and for the long term. What stops this happening is the procurement process itself and financial issues. Conventional procurement typically involved rigid input specifications and a lowest bidder wins approach. This leads to cost and time overruns as the government client changes its specification due to lack of strategic planning and the need for the private sector to make money on change orders to compensate for the low bid price. Price, not quality, becomes the key factor which, inevitably leads to a low quality build. There are separate designers, builders and operators which leads to limited innovation and little incentive by the contractor in ensuring a building that will last. On the finance side, the inability by government departments to raise the large amount of capital needed for a major project such as a hospital means that it may be years or decades (if ever) On the finance side, the inability by government departments to raise the large amount of capital needed for a major project such as a hospital means that it may be years or decades (if ever) before a building can be financed

before a building can be financed. For example, before their PPP solution went ahead in 1999 West Middlesex hospital in West London had been trying to get a new building financed for over 20 years.² Furthermore government runs separate capital, operational and maintenance budgets. When times are tight the latter two often get squeezed leading to the sort of maintenance backlog experienced in the United Kingdom. Cutting back on maintenance is a false economy as the cost of remedying defects increases logarithmically the longer the asset is neglected.

In some cases financing issues for the capital aspects of the project can be solved by donor organisations such as the World Bank, the European Union (EU), etc. Unfortunately, this can often lead to other problems. The Mater Dei Hospital in Malta was built using EU money. The hospital was over specified by the authorities to the extent that they could not afford to open the hospital. This is an all too common example of a fixation on constructing the infrastructure itself without focusing on the key fact that a piece of infrastructure is only of value if it can be used to deliver a service. A PPP model, whilst dealing with the availability of funds to operate and maintain a hospital or other building, does not altogether avoid a temptation by those commissioning the project to 'gold plate' and come up with a project that is, ultimately, unaffordable as was shown by several hospital projects in the United Kingdom, such as the Leicestershire PFI hospital cancelled in 2006. Incidentally, critics of cancelled PPP projects such as this often quote them as examples of why PPP does not work.³ In fact, these United Kingdom examples of cancelled projects demonstrate the importance of having a system of checks and balances that ensure that non-affordable projects do not go ahead. Without the oversight of a ministry level and national level PPP unit, projects such as these can proceed without sufficient review of their financial viability.

With a properly run PPP programme the issues relating to proper budgeting of all aspects of the project (construction, operation and maintenance) are more likely to be addressed. Because PPP uses a whole-life approach consideration has to be given to more than just the construction phase. Governments have to devise an output specification which gives the private sector more options as to how to deliver the outcomes that the public sector requires. This process means that the government project is better planned avoiding the need, on the whole, for expensive change orders. The capital cost of the project is paid for over the life of contract and integrated with the operation and maintenance budgets (in one service budget), ensuring that these are protected. By spreading the cost over a number of years capital assets can be purchased which otherwise would have been unaffordable. There is a much better integration of operation and maintenance with design as those who design the asset also have to maintain and operate it long term: unlike a private sector contractor on a conventional project who can walk away after a few years leaving the risk of poor construction with the public sector. PPP gives a whole life approach to delivering services and this is particularly important as regards who pays for a new facility such as a hospital. With a conventionally procured building the cost burden falls on today's taxpayers. In jurisdictions which finance infrastructure from local taxes this is even more keenly felt. With a PPP the capital cost, like the costs of the service itself, are paid for as they are consumed meaning a much fairer burden on taxpayers.

Another advantage to PPP is that the private sector can often move at a more nimble pace than that of government organisations. In 2002, when the Tanzanian government was attempting to scale up delivery of antiretroviral treatment to people with AIDS, an assessment conducted by the Tanzanian Ministry of Health and the United States Centers for Disease Control found that the country's ageing laboratory system was one of the weakest links to provision of quality healthcare. Most laboratories, it was found, were inefficiently designed and understaffed. Furthermore, the physical infrastructure and equipment were in a state of disrepair. The existing laboratory system simply could not meet the needs of the flood of people needing lifelong monitoring. Five years later, due to lack of resources as well as bureaucratic roadblocks, nothing had been done to address this issue.

The Abbott Fund, the philanthropic arm of Abbott, the global healthcare company, had been working in PPPs in Tanzania for many years. The Abbott Fund entered into a PPP with the Tanzania Ministry of Health to modernise all 23 regional-level hospital laboratories across the country. To increase efficiency, a single, flexible laboratory design was developed. Grouping together the construction of facilities into one project and using a consistent design across facilities is something that delivers considerable cost savings for government clients in PPP projects.

The first laboratory was dedicated in May 2009 and it is anticipated that the modernisation of all 23 laboratories will be completed by the end of 2010 - a breathtaking pace at which private companies are used to working but most government entities are simply incapable of functioning at.

This is a PPP in its most basic definition. The Abbott Fund is supporting the construction of the laboratories and technician training and the Tanzanian government is responsible for replacing ageing equipment. To help address the lack of human capacity to staff the laboratories, the Abbott Fund is sponsoring 100 scholarships each year for laboratory technicians at Bugondo University. So although the laboratory staff are government employees, as is usually the case in healthcare PPPs, in this particular case the private sector partner is helping the government staff reach the necessary capability through enabling the provision of training. This delivers a long-term benefit to the country and raises the skill level of the healthcare technicians in a way that otherwise would have been impossible.

Public-Private Partnerships: from the United Kingdom to the World

Following its successful privatisation and outsourcing programmes in the 1980s the United Kingdom was looking for a way to harness the efficiencies and better management it had seen from the private sector in those initiatives to deal with its crumbling infrastructure in, particularly, healthcare and education. What was needed was a way to combine all the lessons learned from privatisation and outsourcing in order to solve the problem of social infrastructure provision. The missing part of the puzzle was financing these facilities over time and for this the government turned to the project finance market which had been operating in areas like the building of oil and gas facilities. The United Kingdom's Private Finance Initiative was launched in 1992 with the first project, a prison, being signed in 1995. Over the next 15 years, the United Kingdom revolutionised the delivery of its public services by using PPPs to finance more than 900 projects with around £60 billion of private capital. The United Kingdom's success in using PPPs to deliver everything from roads, light rail, hospitals and schools to courts, police stations and street lighting encouraged other countries to look at PPPs. The spread has been rapid. Ten years ago there were just a half dozen countries contemplating PPPs now around 100 countries are undertaking or seriously considering PPPs. These include Commonwealth countries as varied as Canada, South Africa, Malaysia, New Zealand, Singapore, India, Bangladesh, Nigeria, Pakistan and Mauritius. As regards PPP hospitals these have been delivered, or are under way in, Portugal, Italy, Spain, Greece, Ireland, Germany, Canada, Mexico, Sweden, Turks & Caicos, Poland, South Africa and Australia.

The use of PPP in delivering healthcare facilities

So how does PPP work for delivering a healthcare facility such as a hospital? Going back to the definition earlier the normal model works like this: a private sector firm (formed by a consortium of companies which usually include a contractor, a facilities manager and a bank) is created to deliver these services, which usually involves building new infrastructure (such as a hospital). The private sector firm is responsible for designing, building, operating, maintaining and financing the hospital and providing the facilities management services (maintenance, catering, cleaning, porterage, etc.) for the long term (usually 25-30 years) in exchange for regular payments from the public sector. The payment mechanism created under this arrangement links the payment to the quality and quantity of service delivered. The government health authority sets the standards to be delivered and if the private sector fails to deliver to these standards they suffer a payment deduction. The costs of the capital element (the hospital building) are spread over the length of the contract so that the government does not have to find the money to pay for the building all at once. Properly implemented, the payment mechanism aligns the interests of the service provider with the public sector organisation to whom the services are to be delivered, in that any consistent lapses in quality or consistency of the services jeopardises the funder's ability to be repaid safely. In essence, the bank financing the project becomes the public sector's greatest ally. At the end of the contractual period the operation of the hospital reverts to the public sector body which can either run it themselves or let it out under another contract.

One of the key results of the programme in the United Kingdom, and one of the strongest justifications for the process, has been the transformation in the time and cost involved in building public infrastructure. In the United Kingdom, under old-style procurement, delays and cost overruns were common. These additional costs had to be borne by the public sector, thereby damaging their ability to commission further projects and, more importantly, restricting the funds available for ongoing operation and maintenance. Under PPP, cost overruns have to be borne by the private sector contractor/operator. As a result cost and time overruns have fallen dramatically: from around 70 per cent of projects being late or over budget under conventional procurement to less than 20 per cent under PPP.⁴ The private sector has a major incentive under PPP to complete the new assets on schedule as the public sector does not begin to pay for the asset until it is built and operational.

Key issues for governments wanting to use PPP in health

Given all the advantages of PPP, however, the number of projects, particularly the number of health projects, is much smaller than the number of countries looking at PPPs would indicate. Simply put, many countries with an interest in doing PPPs, who might even have a PPP unit and a list of projects are simply not delivering the projects they need. The reasons for this vary but are things that need to be looked at if a successful PPP health programme is to be delivered.

The huge surge of interest in PPPs which has resulted in half the nations of the world looking at the process brings its own problems. Firstly, there are only so many experienced PPP consultants, contractors, operators and funders in the world. This means that, essentially, many countries are in competition for the same resources. Governments often fail to realise that a country in the region (or a similar country in another region) may be drawing resources away from their projects because their 'competitor' has a more attractive project. This attractiveness could relate to the project itself (size, simplicity, etc.), the country concerned (political stability, financial situation, environment, etc.) or, the international PPP market's perception of how able the authorities and the private sector in the country are to deliver a project. This would encompass matters such as the existence of PPP legislation, a PPP unit, an experienced construction industry, etc.

'PPP is no magic bullet for the Public Sector. PPPs perform very well, but... there is a whole series of cards that need to be stacked up to get the full benefit'⁵ So, given that a particular country wants to embark on a PPP health project what does it need to do to give this project a good chance of success? All of the following are not only necessary to getting projects moving but are also some of the key things that potential investors look for in a country trying to start a project.

Political support

High level political support is crucial in ensuring the delivery of PPP programmes. Politicians need to convince their colleagues, lead and support the public sector, reassure and engage with the private sector both locally and internationally and communicate their objectives and justification to the public and the media. However, much the local public or private sectors want PPP without high level political support there will be no PPP. In Mexico, which has a PPP hospital programme, the President led from the top and engaged those in other political parties to ensure that states controlled by the opposition had equal chances to come up with projects. For the first PPP health project in Malta the Minister of Finance was personally involved. In the Tanzanian laboratory project, the Minister of Health, established a strong level of trust over time with the private sector company Abbott Fund and was able to successfully champion PPP projects from within the government. This support has continued as new ministers have taken office.

PPP unit

One of the biggest contraints preventing more PPP programmes worldwide is the lack of recognition that PPP as a process requires significant investment before a project can be considered. Governments who in many cases are looking at PPP because they are financially constrained often do not see the value in devoting money and staff to set up a PPP unit. Virtually every country which has a PPP programme has some sort of PPP unit to facilitate co-operation between different tiers of government, act as a knowledge centre and/or regulator, devise standard wordings, identify and even run projects, communicate with investors, press and public, address tax and legal issues. If a number of projects are contemplated then it is also important that line ministries likely to have projects have their own units. The role of these is to identify key projects based on the needs of their particular programmes which the national unit can then assist with or run; depending on the role of the national unit.

Legal issues

Establishing an appropriate legal framework is one of the things that needs to be done first to enable PPP projects to go ahead. Legal changes may well be needed not just at national level but also at regional and municipal levels. For example, in the United Kingdom, at the beginning of its PFI hospitals programme it was realised that hospital authorities did not have any power to contract with the private sector. Changes had to be made to United Kingdom legislation to permit this. In some countries there are issues over ownership of public assets. In others government bodies are not permitted to enter into long-term contracts. Tax issues need to be addressed, especially those that mean that public and private projects are liable to different rates of tax.

Communications issues

The use of private sector involvement in healthcare is often controversial and too often government has not got its communications strategy right before better organised opponents start to win the communications battle. Government needs a communications strategy for its PPP programme. This should address internal stakeholders such as other parts of government, press and public, the local private sector and unions. There also needs to be an external strategy to publicise the programme and project opportunities to potential investors, operators, donors and IFIs. The greatest difficulty for an emerging or developing market is, given the number of countries seeking to embark on a PPP programme, raising their profile in a crowded international market.

There needs to be open and shared communications between the public and private partners to ensure that one does not outshine the other and that agendas are aligned.

Experienced advisers

The selection of advisers is critical and is one of the things that investors will look at when scoping out a potential project. In order for the public sector to negotiate on an equal basis then their advisers should be at least as experienced as the private sector's. Too often governments hire inexpensive but inexperienced advisers who turn out to be a false economy.

Understanding the relationship between the public and private sectors

PPP should be a partnership but the public and private sectors have very different drivers and need to understand each other. Without highly skilled individuals on both the public and private sector sides, PPP projects could still go badly wrong.

Training

Training for the public sector is key in order to ensure best value for money. It is very important that the public sector develop their own

internal capacity so that they can reduce their reliance on advisers. Likewise, it is easy to assume that the local private sector is able to understand PPP but training is often necessary here as well.

The pilot project

Experience has shown that, on the whole, a country's first PPP pilot project will be slower and more expensive to procure. It is also sensible not to embark on too big or complex a project and one with manageable political sensitivities. For this reason the construction and operation of a major acute hospital should probably not be a natural first choice for a pilot PPP.

However, smaller healthcare projects are quite feasible. For example, one of the first projects that the Abbott Fund worked on with the Ministry of Health in Tanzania was the construction of a new outpatient department and modernisation of the laboratory at Muhimbili National Hospital, the country's leading teaching and reference hospital. Rather than taking on an entire new hospital project the PPP focused on improving one department of the hospital. The success at Muhimbili helped lay the groundwork for larger national PPP programmes.

Healthcare PPP some issues

Typically, hospitals are likely to be the most complex facilities that most governments have to procure. Linked with the issues relating to concerns about the involvement of the private sector in healthcare delivery, this means that executing a large PPP health project can be a long and frustrating process.

PPP is only a procurement method

PPP itself cannot improve healthcare delivery. Health planning, both at a strategic and a hospital level are critically important to ensure that PPP resources fit into an overall health strategy that enables government's outcomes to be met. In fact it would be foolish to proceed with a major health PPP programme without having first addressed general healthcare reform issues. For example, currently, many governments are moving away from a model which envisages the provision of many large hospitals to a 'care closer to home' model. This will have a huge impact on the number and nature of healthcare facilities being provided to the population. The provision of healthcare facilities can be part of the price for the private sector in getting permission from a government to be involved in a more commercial project. Many developing and emerging nations are trying to attract more tourism. Having a plan whereby companies wanting to build hotels, for example, have to contribute to the provision of locally needed healthcare infrastructure is worth exploring. The funding of the Hong Kong Metro was achieved by the contribution of the private sector from sales of office buildings over the Ensuring that commercial development stations themselves. permissions are linked to the provision of social infrastructure, either directly or via the provision of funding, is one way for governments to deliver such projects.

Design issues

The United Kingdom PFI programme has seen a great deal of debate relating to the design of hospitals. The idea is that given that the private sector has to operate and maintain the hospital for the long term then there should be innovative approaches to design and construction. These have certainly been seen but equally there was some criticism in the United Kingdom of poor design in some of the early schemes. Because of the ad hoc development over decades of many United Kingdom hospitals it had been a long time since anyone looked anew at patient flows and the need for certain clinical functions to be in proximity. Designers of PPP hospitals have to make the care of the patient paramount and co-ordinate design for things such as IT, medical equipment and services. For example, the location of lifts and use of underground linking corridors mean that non-essential supplies and services can be moved about the hospital without disrupting the medical areas. Wards can be designed so that the nurses on duty can see all of the patients' beds from their desk without having to get up and check on them as before.

The Private Finance Initiative in the United Kingdom and PPP hospitals elsewhere in the world has provoked a new interest in innovative hospital design. This covers all aspects of the building from the provision of revenue generating areas such as shops and cafes for visitors to work on the hospital as an integrated 'therapeutic environment' where the therapeutic value of hospitals is related to their physical, social and symbolic design.⁶ Companies like Philips are looking at the importance of lighting in hospital rooms and the development of individual pods which can reconfigure themselves depending on the patient's needs. The four key pillars of hospital design are considered to be that they should be clinically efficient, be integrated within the community, be accessible to consumers and the public, and encourage patient and staff well-being. Technological developments relating to equipment are also having an impact on design issues. The long-term nature of PPP contracts means that planning for flexible spaces is very important. A magnetic resonance scanner of a few years ago required enormous power whereas modern machines have been developed that work off a normal domestic-type power supply.

Provision of equipment

This can be a controversial issue between the private sector and clinicians. In some PPP projects equipment is included and the private sector delivers the equipment: this can lead to savings through the purchasing power of companies compared with that of a single hospital. However, in some projects clinicians want to retain control over which manufacturer they buy certain pieces of equipment from and so do not delegate this power to the private sector. Because of the rapid advances in technology PPP contracts need to have the flexibility to ensure that the latest equipment can be provided when required.

Clinical provision

In the United Kingdom, on the whole, clinical services in PPP projects are still delivered by government National Health Service clinical staff with only the facilities management services being delivered by private sector employees. PPP hospital schemes have been criticised in the United Kingdom in that they do not demonstrate the same financial savings that that have been seen in PPPs in, for example, prisons⁷. The Department of Health posited that the reason for this may be that in prison PPPs within the United Kingdom virtually all the custodial services are provided by the private sector 'creating the potential for increased value for money gains¹⁸.

For some time it looked as if Portugal would be the first country to build a PPP hospital that included the clinical component as well as facilities management. However, in the end it was the Turks and Caicos Islands that went ahead with the first scheme. Like the planned Portuguese schemes the project split the facilities provision and management from the clinical services provision by having two special purpose vehicles but still gave the public sector one point of contact with The Private Finance Initiative in the United Kingdom and PPP hospitals elsewhere in the world has provoked a new interest in innovative hospital design. This covers all aspects of the building from the provision of revenue generating areas such as shops and cafes for visitors to work on the hospital as an integrated 'therapeutic environment' where the therapeutic value of hospitals is related to their physical, social and symbolic design.⁶

the private sector sponsor, InterHealth Canada (and HSBC). The reason for this is the reason that clinical services have not been until now included in PPP projects in that some investors and financiers are simply not comfortable with taking clinical risk. With this project now under way it is certain that more PPP schemes which include private clinical provision will follow.

PPP healthcare other than hospitals

Other than major hospitals PPP can, of course, be used to deliver other services in the healthcare world from local and specialist treatment centres, clinical support services, medical schools (which is being examined in Turkey) and ICT projects such as e-health schemes.

Provision of healthcare PPP in less wealthy countries

Many governments think that PPP provides free infrastructure and that these facilities do not have to be paid for. On the whole, however, PPP projects (outside of roads and utilities) do not generate revenue and this is particularly true of hospitals. In those countries that have adopted a PPP model for hospitals the cost of paying the private sector provider comes from regular service payments paid from tax revenue. True, some revenue generation is possible from retail and refreshment facilities as well as car parking but this contributes very little to the cost of the project.

It should be noted that PPPs can be constructed so that investing in people and systems can increase revenue for government hospitals. The Abbott Fund/Tanzania Ministry of Health partnership provided management training and an extensive IT system for Muhimbili National Hospital, as well as staff IT training. These improvements have in turn increased efficiencies in patient management, inventory management and staff resources, resulting in a 350 per cent increase in revenue collection at the public hospital.

It is possible to have structures where private medical care (charged to users) can subsidise the free to use medical care. This could be extended to create the sort of health tourism packages that hospitals in some countries, such as South Africa, have developed. In Jordan, the provision of social infrastructure is built in to regeneration and development plans, such as in Aqaba, where in order to win development rights the private sector has to agree to sponsor a local educational or medical facility.

The challenge for low-income countries is to attract operators and investors in a post credit crunch environment where, although the situation is slowly improving, capital is still hard to come by and banks are even more conservative than before. In this competitive market only by meeting international standards and procedures can less developed countries attract private investment. It is, therefore, critically important for them to invest in the process of PPP (money can be recouped through the project) and to raise their profile amongst the international PPP community. Unlike a few years ago, IFIs are now much more likely to provide money for hiring PPP advisers who can set up and implement a PPP process.

The Commonwealth Business Council (CBC), was established by the Commonwealth Heads of Government Meeting in October 1997 to involve the private sector in the promotion of trade and investment.

The CBC acts as a bridge for co-operation between business and government, concentrating on efforts to help remove barriers to trade, mobilise investment into Commonwealth countries, foster a good environment for business and investment, promote good practice in corporate governance and corporate citizenship, and facilitate the engagement of the private sector in information communication technology for development initiatives, especially in least developed countries.

Today the CBC works at changing business perceptions of the Commonwealth; making Commonwealth countries better able to compete globally; facilitating the exchange of technology and skills to overcome barriers and create new opportunities and promoting the Commonwealth factor: the shared legacy of the Commonwealth which brings trading advantages.

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A good practice response to HIV and AIDS

South African Medical Research Council

Introduction

AfroAIDSinfo[™] is a project developed in response to the HIV and AIDS epidemic and was launched in 2001 by the South African Medical Research Council's (MRC) eHealth Research and Innovation Platform (eHRIP)

As an African resource, the approach followed for AfroAlDSinfo[™] is based on a health promotion model, addressing both online communities as well as those faced by the digital divide. Its online presence at www.afroaidsinfo.org provides up to date information on HIV and AIDS to its five audiences: scientists, health professionals, policy makers, educators and the general public. Visitors are invited to register for a monthly eNewsletter, which additionally enables regular consumer health informatics studies among members to respond to their new or changing HIV information needs.

Parallel community outreach projects use information from the AfroAIDSinfo[™] Web portal within community activities. In turn, community outcomes are published in AfroAIDSinfo^T with accompanying resources for African collaborators, NGOs or community-based organisations to download and implement.

Good practice for HIV and AIDS

Based on a Health Promotion Settings Approach, community projects are initiated with a health needs assessment in participation with the target community to define innovative, culture-sensitive activities. The main focus is to respond to HIV by developing self-esteem among school-going youth, empowering them to make healthy sexual choices. Systematic changes in the youth's behaviour have a ripple-effect throughout the school community.

Social and HIV activities aimed at the youth include line dancing to promote physical activity, interaction with a role model and development of HIV youth leadership to prevent social exclusion Volunteer parents and educators participate in HIV Peer Educator's Courses. The knowledge and skills gained helped them to re-evaluate their own reactions to those living with HIV and encouraged them to join HIV support groups. Donor funding enabled an HIV eLearning Collaborative Programme between South African township youth and an Irish school that led to bridging socio-economic and technology divides.

Evaluation of activities is ongoing. During 2009, results showed a total increase of 9% in learners' HIV knowledge and a 31% increase in HIV leadership development. Capacity building of the educators enabled them to confidently conduct sex education and they contributed to the development of curriculum-aligned material in Life Orientation. There was an increase in the involvement of parents in school activities and HIV peer education, as well as of community members after they had heard radio broadcasts of HIV events on the local radio station. Social support and networking developed within the school communities and willingness to openly discuss and share HIV knowledge.

Conclusion

The AfroAIDSinfo[™] project addresses the Millennium Development Goal # 6: "Combat HIV/AIDS, malaria and other diseases". The eHRIP makes its health promotion model available to other African countries as good practice in responding to HIV.









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The Mix is Right

Modern development cooperation applies different, individually appropriate tools in order to plan, finance and realize projects effectively. In this respect Public-Private–Partnership, a method which relies on commitment from the private sector, has become increasingly important.

Concentrating closely, the pharmacist Mtani Njegere weighs a white substance on a precision balance, accurately records the result in a thick notebook and shakes the powder carefully into a metal dish. Next door, in the main lab, Ruth Ng'wananogu and Rudi Friedli are arranging the tablet press with which the powder is pressed into tablets. 800 data per second are picked up by sensitive sensors during each pressing sequence and represented graphically. From this, important findings about the correct formulation of a compound can be deduced.



The team under project leader Dr. E. Kaale is working in a newly established lab, researching and developing new formulations for HIV/Aids drugs. In this lab all the apparatus is available on a small scale for manufacturing powder, granulate, capsules and tablets. *"We have two*

main goals", says Dr. Kaale with visible pride. "On the one hand we want to offer our pharmacy students an adequate and motivating environment for learning, and on the other, to be a nucleus for practically relevant pharmaceutical research and development in Tanzania, perhaps for the whole of East Africa."

The idea for the project, the establishment of a pharmaceutical technology lab, was developed jointly by the University staff and action medeor. Voluntary experts from industry have contributed invaluable technical support. The project is financed jointly by the "Deutsche Gesellschaft für Technische Zusammenarbeit" (GTZ), MUHAS and action medeor. In June 2010 the lab will have completed the project phase and pass completely into the hands of the University. Seminars during the semester breaks, which are open to professionals throughout Africa, and contract research will enable the lab to generate enough revenue to pay its own maintenance costs and to ensure its independence from the chronically under-financed university. "Then we will see how well we have managed to integrate the lab into the university and how attractive what we have to offer is", says Dr. Kaale. "The mix is right, the future is in our own hands!"



action medeor - Health for All

The German Medical Aid Organization action medeor was founded in 1964 in order to provide improved access to essential medicines in the poorer regions of the world. Today medeor is the largest medical aid organisation in Europe.

Main fields of activities:

- provide access to essential pharmaceuticals
- reduce illnesses related to poverty, such as HIV/AIDS, malaria and tuberculosis
- develop and support primary health
 care services
- provide pharmaceutical expertise
- provide aid in cases of emergencies and catastrophes

action medeor

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An 'all-of-society' approach involving business in tackling the rise in noncommunicable diseases (NCDs)

article by Kathrin Bauer, Olive Boles and Darian Stibbe

The incidence of non-communicable diseases (NCDs), in particular, the chronic diseases attributed to lifestyle factors linked to poor diet, lack of physical activity, smoking and alcohol abuse, are rising dramatically throughout the world. Already, chronic diseases are the leading cause of death, and, if this trend continues, they threaten to overwhelm national health provision and cause untold societal and economic damage. And yet most of these diseases – in particular cardiovascular diseases (CVD), cancers, chronic respiratory diseases and type 2 diabetes – are preventable.

The size and complexity of the problem, with most determinants of the major NCDs lying outside the influence of the traditional health sector, requires a broad and deep response, involving many stakeholders in public, private and civil society.

This paper sets out the rationale for an 'all-of-society', multi-sectoral partnership approach to preventing and treating NCDs, focusing in particular on the potential business contribution to the issue. It contains a number of examples of effective partnerships between business, government and civil society, which illustrate how partnerships can achieve win-win outcomes. It also considers the sensitivities that need to be considered when marrying commercial imperatives with the public good.

Bringing together the many diverse interests and finding common ground is a major challenge, but also a major opportunity: to join the many streams of action into a torrent of change and scale them up through multi-sectoral action and partnerships.

The public health imperative

Non-communicable diseases (NCDs), in particular the chronic conditions of cardiovascular diseases (CVD), cancers, chronic respiratory diseases and diabetes, are the world's biggest killers, causing an estimated 35 million deaths each year – 60 per cent of all deaths globally.¹ The burden of NCDs is rapidly increasing worldwide and is a major cause of poverty, a barrier to economic development and a challenge to healthcare systems. Unless addressed, the WHO predicts that globally NCD deaths will increase by 17 per cent over the next ten years. The greatest increase will be seen in the African region (27%) and the Eastern Mediterranean region (25%). The highest absolute number of deaths will occur in the Western Pacific and South-East Asia regions.²

Contrary to widely held beliefs the NCD burden is far from being limited to the developed regions of the world. Eighty per cent of deaths due to NCDs occur in low- and middle-income countries (LMCs), almost half of which involve people under the age of 70, compared with only a quarter of such deaths in rich countries.³ This means that people in developing countries are often hit at the peak of their economic productivity. For the first time in history, poor countries are now facing a dual burden of infectious and non-infectious diseases, with NCD deaths dominating healthcare needs in most LMCs. It is clear that the earlier labelling of the major NCDs as 'diseases of affluence' is increasingly a misnomer, as they emerge in poor and disadvantaged population groups disproportionately and in addition now affect people

in developing countries at younger ages than in developed countries. This shift in the pattern of disease is taking place at an accelerating rate, which, together with the increasing burden of disease, is creating a major public health threat, calling for immediate and effective action.⁴

These largely preventable diseases result in high costs to governments, in productivity losses and associated costs to businesses, as well as in significant economic and social costs to communities and the impoverishment of families. The direct morbidity and mortality burden of NCDs on patients and their families is reflected in diminished productive activity and lower returns to investment in human capital. When aggregated across economies, these household costs have an important impact on the size and productivity of the labour force and on national incomes in general.⁵ The Milken Institute estimates that the major NCDs cost the United States more than US\$1.2 trillion every year.6 CDC researchers estimate that obesity alone accounted for 9.1 per cent of all medical spending in the United States (US\$147 billion) in 2008 and annual economic costs to business for insurance, paid sick leave and other payments reaches US\$12.7 billion.7 The same pattern will be replicated in workforces in urbanised areas of emerging markets if action is not taken. In the United Kingdom, by 2050, modelling indicates 60 per cent of adult men will be obese, 50 per cent of adult women, and about 25 per cent of all children under 16.8 NHS costs attributed are projected to double to £10 billion. Costs to the wider society could reach £50 billion per year.

The global increase in type 2 diabetes is closely linked to overweight

"VISION 2020 is about partnership. This is one of the most important aspects for WHO in the future."

Gro Harlem Brundtland, former DG, WHO



SEE REAL CHANGE in the lives of people, families and communities – SUPPORT EYE HEALTH STRATEGIES for developing countries million people live with blindness or vision impairment

per cent of blind people live in developing countries yet...

per cent of blindness is avoidable, and Sight restorations are among the most cost effective interventions in health care

public, private, professional, academic and nonprofit organisations, are united in VISION 2020

VISION 2020: The Right to Sight

831

VISION 2020: The Right to Sight is the Global Initiative for the Elimination of Avoidable Blindness; a joint programme of the World Health Organization and the International Agency for the Prevention of Blindness (IAPB). IAPB is a worldwide coalition of 111 organisations including NGOs, global peak bodies for ophthalmology and optometry, world-leading academic institutions and multinational corporations.

The Initiative aims to eliminate the main causes of avoidable blindness by the year 2020 by facilitating the planning, development and implementation of sustainable national eye health plans. IAPB member organisations seek to strengthen national health systems, encouraging the integration of sustainable eye care services into national health-care systems.

VISION 2020 strategies have proven successful in reducing blindness due to cataract, onchocerciasis, trachoma, vitamin A deficiency and other blinding eye conditions. **Today, 15 million fewer people are blind compared to 1999 projections.**

VISION 2020 Strategies – crucial contributions to MDGs

There is a strong correlation between blindness and poverty, particularly in developing countries. Many of the causes of blindness are directly related to economic and social disparities.

Studies indicate that strategies to eliminate avoidable blindness can help to alleviate poverty in developing countries. Impressive economic rates of return have been cited, including an estimated 19% in the example of the Gambia. In India, it was estimated that treatment of cataract blindness alone, at a cost of US\$ 0.15bn could result in savings of up to \$1.1bn in annual GNP.

Findings from a recent study by WHO Collaborating Centre ICEH, "provide empirical evidence of improved health related quality of life and increased involvement in different daily activities", supporting arguments of economic benefit from eye health interventions.

WHO Action Plan on Blindness and Visual Impairment

With World Health Assembly resolutions in 2003 and 2006, WHO Member States made unanimous commitments to integrate prevention of blindness and vision impairment into their health care systems.

Based on these resolutions in 2009 the World Health Assembly adopted a WHO Action Plan for the Elimination of Avoidable

Blindness and Visual Impairment. For the implementation of this plan significant additional financial resources are needed.

Honouring Commitments

The Australian government is leading efforts to eliminate avoidable blindness and vision impairment in Asia Pacific, with a total commitment of A\$600 million over 10 years. With this plan, more than 124 million people will have their vision improved or restored. Given that vision impairment in Australia costs \$9.85 billion a year, and \$66.75 billion a

year in the US, the Australian government believes that this strategy will bring significant economic benefits to the region.

The Indian government has also

"What these folks do is real important..."

Bill Clinton

made substantial commitments to eye health, allocating Rs.1,250crore (over USD \$250 million) to expand the scope of its blindness control scheme to include other causes of blindness such as

diabetic retinopathy and glaucoma, as well as cataract.

Governments must provide funding to support the WHO Action Plan to eliminate avoidable blindness, particularly in lowand middle-income countries.

*45 million people are blind, 269 million have low vision and 517 million people have impaired near vision or presbyopia.

Please visit www.VISION2020.org for more information and to find out how to help



THE RIGHT TO SIGHT

Figure 1: Proportion of pe	eople with diabetes within the C	Commonwealth countries – 2010
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Country	Proportion of people with diabetes (20-79 years) 2010	Country	Proportion of people with diabetes (20-79 years) 2010		
Antigua and Barbuda	7.1	Mozambique	4	>12%	
Australia	5.7	Namibia	4.3	9-12%	
The Bahamas	10.4	Nauru	30.9	7-9%	
Bangladesh	6.6	New Zealand	5.2	4-7%	
Barbados	I	Nigeria	4.7	<4%	
Belize	9.8	Pakistan	9.1		
Botswana	5.4	Papua New Guinea	3		
Brunei Darussalam	12.6	Rwanda	1.6		
Cameroon	3.9	St Kitts and Nevis	9		
Canada	9.2	St Lucia	9.3		
Cyprus	9.1	St Vincent and the Grenadines	8.4		
Dominica	11.5	Samoa	7.7		
Fiji Islands	9.4	Seychelles	14.4		
The Gambia	4.3	Sierra Leone	4.4		
Ghana	4.3	Singapore	10.2		
Grenada	9.5	Solomon Islands	3.3		
Guyana	9.5	South Africa	4.5		
India	7.8	Sri Lanka	10.9		
Jamaica	10.6	Swaziland	4.2		
Kenya	3.5	Tonga	13.4		
Kiribati	6.6	Trinidad and Tobago	11.7		
Lesotho	4	Tuvalu	13.9		
Malawi	2.3	Uganda	2.2		
Malaysia	11.6	United Kingdom	3.6		
Maldives		United Republic of Tanzania	3.2		
Malta	6.8	Vanuatu	3.2		
Mauritius	16.2	Zambia	4		

Source: IBLF 2010, information adopted from the Diabetes Atlas 2010

and obesity and can be used as proxy of the growing disease burden. Estimated global healthcare expenditures to treat and prevent diabetes and its complications are expected to total at least US\$376 billion in 2010. By 2030, this number is projected to exceed some US\$490 billion. An estimated average of US\$703 per person will be spent on diabetes in 2010 globally.⁹

Figure 1 lists the proportion of people with diabetes (20-79 years) within the Commonwealth countries – as of 2010.10

If trends continue as they are no country in the world will be able to afford the healthcare burden that NCDs will bring and societies will be gravely damaged by the combination of a growing ageing, unhealthy population with a less productive workforce to support it. *The World Economic Forum's Global Risk 2010 Report*¹¹ ranks chronic conditions among all social, environmental, economic, geopolitical and technological risks to humankind in third position both in terms of likelihood to occur (above 20%) and severity (nominally measured as over US\$1 trillion).

What seems to be driving the increase in NCDs, especially in LMCs, is the speed with which those in developing countries have adopted

unhealthy habits of the developed, industrialised countries - occurring at a faster rate than it did in the industrialised regions of the world half a century ago.¹² The causes of NCDs are both biological (e.g. dyslipidemia, hypertension, overweight, hypersulinaemia) and behavioural (e.g. unhealthy diets, physical inactivity, tobacco use, and the harmful use of alcohol), but also set within cultural, environmental and social frameworks. While ultimately many solutions may lie in personal responsibility, the reality is that human biology is too often overwhelmed by an increasingly obesogenic environment - an environment that promotes the consumption of foods high in fat, sugar and salt; unsupportive environments in schools, workplaces, communities; a built environment that militates against physical activity; motorised transport; urbanisation and its associated sedentary lifestyle; lack of access to quality health services and essential NCD medicines etc - all factors which affect disadvantaged/vulnerable sections of society most of all.

The following chart (Figure 2) describes the key determinants of the main NCDs along with the risk factors that need to be tackled through primary, secondary and tertiary prevention and treatment interventions.

Box 1: Definition of multi-sector partnerships

Multi-sector partnerships (also known as multi-stakeholder initiatives, cross-sector partnerships, or public-private partnerships for development) refer to a collaboration between public agencies/municipalities, businesses and others from civil society, academia, the media, etc:

- to work together on a project or programme which contributes to sustainable development;
- in which the partners bring complementary resources, contribute to the design of the programme, and share risks and benefits;
- in order to achieve their own, each other's, and the overall partnership's objectives.

IBLF, 2010

Although proven cost-effective strategies and simple ways exist to prevent and control this growing burden, high-level commitment and concrete actions are often missing at the global and national level. NCD prevention and control programmes remain dramatically under-funded and have been left out in the global development agenda. For example, the Millennium Development Goals (MDGs) do not include any NCD targets, although NCDs cause 14 million annual premature deaths in LMCs, impose a heavy burden on socioeconomic development and account for a large enough share of the disease burden of the poor to merit a serious policy response. The omission of NCD indicators in the MDGs has been a central barrier to securing donor funding for NCDs, as many donors exclusively fund the health priorities contained within the MDGs.¹³

On a positive note, NCDs have started to receive increased policy attention, led by both governments and the international health community. During the CHOGM meeting in November 2009 in Trinidad



Figure 2: Key determinants of the main NCDs along with the risk factors

Table 1: An illustration of what the public and private sectors and civil society in general can bring to collaborative action

In general, the public sector (government, public health/education institutions, etc) brings:

- Power of the individual ministries. Government can build plans for action against NCDs into its strategic planning across its ministries including urban planning, agriculture, education, sports.
- Regulation and taxation. Government can use regulation and taxation to mandate, encourage or reward changes in markets and in individuals' health/lifestyle choices.
- Public finance budget. Government can allocate funding towards partnership initiatives.
- Public health system. Government brings its public health system with its technical expertise and its infrastructure for healthcare provision.
- Democratic legitimacy. Government involvement/endorsement provides democratic legitimacy to policies and decision-making processes that impact on public health.

The private sector (involving various industries) brings:

- Products. Companies are ultimately responsible for the formulation of the food products they produce and can adjust or develop new products.
- Supply infrastructure. In all but a handful of countries, business controls the entire supply chain infrastructure from farmers' fields to supermarkets.
- Reach and access. Companies have tremendous reach through their marketing, through the process of shopping and through the products themselves into every household in the country. Such reach can be used, e.g. in education campaigns.
- Brand. Companies can use the social capital of their 'cool' brands to influence people's behaviour.
- Technical knowledge and capacity. Companies bring technical knowledge/capacity in a range of relevant areas from the formulation of food products to marketing know-how.
- Market-based approach. Companies are in the best position to create long-term economically sustainable action by building new products, new markets and new viable businesses around healthy food and physical activity and in the provision of care to chronically ill people.

Civil society (NGOs, community groups, faith groups, etc) brings:

- Technical knowledge, experience and capacity. Medical NGOs bring specific technical medical knowledge, their experiences in educating people on medical issues and their capacity in providing healthcare. Other civil society organisations may bring specific relevant experiences such as running sports events.
- Local knowledge. Community-based organisations can bring a real understanding of local needs, behaviours and traditions in order to adapt programmes to the local context.
- Connections and social capital. Civil society organisations of all kinds have their own constituencies of influence and considerable social capital (for example within the communities in which they operate), which can be used to help effect behavioural change.
- Legitimacy. In some countries, civil society organisations are considerably more trusted than either government of business and can help to bring legitimacy to a partnership.

and Tobago, Heads of Government of the Commonwealth affirmed their commitment to addressing the increase of NCDs and to increasing the ability of their countries to respond to this crisis. They called for a United Nations General Assembly Special Session (UNGASS) on NCDs, which will help secure the government action required to reverse the epidemic, as well as for the integration of NCD indicators in the MDG Review Summit taking place at the 65th Session of the UN General Assembly in New York in September 2010.¹⁴

Also, the International Diabetes Federation (IDF), International Union

Against Cancer (UICC) and World Heart Federation (WHF) have mobilised their networks of more than 730 national member associations in over 170 countries to call for a UNGASS on NCDs. This was put forward by this NGO group to UN Ambassadors in New York in February 2010. This group also advocates for the inclusion of NCD indicators in the MDG Review Summit as well as advocates for the availability of essential medicines for people living with NCDs in LMCs.¹⁵ Furthermore, last year, the United States' National Institutes of Health, the United Kingdom's Medical Research Council, the Canadian Institutes of Health Research, Australia's National Health Medical Research Council, and China's Ministry of Health launched the Global Alliance for Chronic Disease to lead and coordinate research into chronic diseases worldwide.16 Finally, the National Heart, Lung, and Blood Institute (NHLBI), a component of the United States' National Institutes of Health, has partnered with the UnitedHealth Group, to support centres of excellence in low-income and mid-income countries to strengthen NCD prevention and control efforts.¹⁷

The World Health Organization (WHO) has set a global goal of reducing the death rates for chronic diseases by an additional 2 per cent a year between 2005 and 2015, which would save 36 million lives.¹⁸ In May 2008, WHO developed an action plan to provide member states and the international community with a roadmap to establish and strengthen initiatives for the surveillance, prevention and management



of NCDs. The plan is based on the Global Strategy for the Prevention and Control of NCDs (2000), which recommends that action should focus on controlling associated lifestyle risk factors in an integrated manner. Guidelines for countries to implement a comprehensive strategy include broad goals to generate an information base for action; establish a national programme; address issues outside the health sector that influence NCD control; and ensure health sector reforms are responsive to the NCD challenge. The Action Plan also builds on the *WHO Framework Convention on Tobacco Control* (2003) and the *WHO Global Strategy on Diet, Physical Activity and Health* (2004)¹⁹.

The current public health crisis has been some 30 years in the making, with widespread change in societies and behaviours. The implications of NCDs on poverty and healthcare systems highlight the pressing need to invest in NCD prevention as an integral part of sustainable socioeconomic development. As briefly indicated in this chapter, international institutions and related stakeholders have started to realise the urgent need to include NCDs on the development agenda, the importance of high-level commitment and the call for concrete actions. Solutions need to be equally long term and large scale in terms of commitment. While governments have the biggest responsibility in NCD prevention and in setting up global health policies, considerably more gains can be achieved through a coordinated global response, involving all relevant stakeholders. All stakeholders - international organisations, the medical community, NGOs, individuals and the private sector will need to intensify and harmonise their efforts to succeed in fighting the growing burden on NCDs.

The root causes of the major NCDs are determined by a wide array of interconnected social, economic, physical environment and behavioural factors. As shown in Figure 2, most of these factors lie outside the traditional role of public health agencies, and a normal public health response will never achieve the major shifts in society that tackling the causes of NCDs requires. Further the scale of the need for treatment of NCDs so outweighs public health resources that a wholesale shift in the way diseases are managed and treated is necessary.

On the public sector side, a coordinated response is essential across government, including, for example, ministries or agencies for urban planning, agriculture, education, sports as well as health. However, government cannot tackle the problems on its own.

Instead, an 'all of society' approach is required in which the public sector, business, and civil society in its various forms join their resources, competences, social capital and constituencies to take action through multi-sector partnerships.

Partnerships can provide:

- Innovative approaches to tackle the complex challenges of the causes and treatment of NCDs in ways that would not be possible by any sector working alone.
- Access to more resources by drawing on the full range of technical, human, knowledge, social capital, physical and financial resources found across all sectors.
- Greater sustainability by drawing in a wider group committed to achieving the objectives, by bringing an economic/business case into delivery, and by creating appropriate, accepted and implementable solutions through stronger engagement with stakeholders.

Types of partnerships

A whole range of different types of potential collaborations exist, which can be differentiated as follows:

- By geographic scope. Partnerships can range from global networks of governments, multi-national companies, global NGOs and UN agencies; to local initiatives involving, for example, local businesses and the municipality.
- ▶ By 'level' of impact. Partnerships can operate at a 'high level', several steps upstream of on-the-ground impact e.g. developing/influencing policy or creating frameworks for coordination of activities by a number or parties; at an 'intermediate level' directly supporting implementation efforts e.g. exchanging knowledge and experience, building capacity, facilitating action by others; or at an 'implementation level': actual delivery of programmes and activities with direct impact e.g. reformulation of food products, healthy eating/active living education programmes to influence behaviour.
- By operational model. Partnerships can range from a loose network of a large number of organisations (usually with low levels of commitment from each partner, and with less tangible outputs), to the creation of new joint ventures between two or three organisations (with high investment from partners).

In general, partnerships do not tend to fit neatly into just one 'type' and may span several elements. PAHO's Partners Forum²⁰, for example, aims to influence policy, to better coordinate the activities of its partners, to build capacity and to facilitate on-the-ground action. Some partnerships have a global-to-local organisation – for example, the Global Fund²¹ has a global partnership structure feeding into and being fed by country-level multi-stakeholder partnerships ('Country Coordinating Mechanisms'). And other partnerships can move from a local initiative to more regional activities – *Cicloviás*²², for example, has gone from a single event in one municipality (Bogotá) to being replicated in a number of municipalities all over the Americas.

Later in the chapter there are a range of examples of different forms of partnership, tackling different issues.

Focus on the private sector contribution to NCD prevention

Within the public and NGO sectors, there may be legitimate reservations about working in partnership with the private sector, particularly in those industries most directly connected with the issues, such as food and beverages, which may in some cases be considered as being 'part of the problem'.

This section focuses on the potential positive role of companies across multiple industries and the importance of engaging business rather than sidelining it.

Engagement of the private sector is a critical success factor in sustained long-term population behaviour change. Public health bodies need to focus on building a relationship and understanding with the private sector, including the media, to allow it to play a constructive part in NCD prevention. The WHO emphasized in its *Global Strategy on Diet*, *Physical Activity and Health* that 'the private sector can be a "significant player" in promoting healthy diets and physical activity'.²³

Pharmaceutical, health services, food and beverage, and fitness companies, whose products and services are closely linked to health, have more obvious roles to play. Nevertheless there is significant scope for action from a much wider range of industries through their social responsibilities strategies.

The WHO strategy earmarks the food industry for particular attention, and asks for action on the continued development of healthy and nutritious choices for consumers, limiting the levels of fat, sugar and salt Figure 5: Framework for business engagement in NCD prevention 2010 – IBLF

Core business operations and value chain

Creating positive shared value by mobilising the innovative technologies, processes, products and skills of the private sector to help achieve international goals. At a minimum, companies should aim to minimise any negative impacts by internalising international principles, codes and industry standards into core business activities. Through partnership, companies can go much further.

Workplace (employees and supply chain)

- Embedding health and wellness in the company's culture and align wellness goals with business strategy.
- Assessing the health risks of employees.
- Developing health and wellness programmes for employees to reinforce personal behaviour change (e.g. implementing workplace exercise facilities, incentives for behaviour change, no smoking workplace, healthy food in canteens, lifestyle education, screening to identify high risk employees for intervention etc.).
- Demonstrating ways employers can help improve the health of staff and their families.
- Promoting active leadership of senior management in wellness initiatives.
- Establishing evaluation and monitoring programmes to measure change, outcomes, and financial impact.

Market place

- Investing in process, product and service innovation.
- Implement measures for responsible marketing to children.
- Undertaking health and nutrition-related marketing, advertising and consumer education.
- Reinforcing positive health messages.
- Improved consumer information.
- Undertaking health and nutrition education and public campaigns.
- Developing and transferring technology to improve food productivity and quality.
- Building physical and institutional infrastructure.
- Improving food and agricultural trade policy.

1. Social investments and philanthropic contributions: Partner with NGOs, governments, donors, social entrepreneurs and community organisations to enhance health and wellness programmes by:

- Supporting education, training, health, nutrition, water, energy, environmental (e.g. to limit air pollution/traffic) and enterprise development projects.
- Building the managerial and technical capacity of community leaders and civil society groups.
- Encouraging women's participation and empowerment.
- Training local health specialists.
- Developing awareness raising programmes; driving local public health initiatives.
- Developing a social investment fund for research and innovation/investing in universities and research institutes to support multi-disciplinary research in the related areas of nutrition, health, etc.

2. Public advocacy, policy dialogue and institution strengthening: Engagement in advocacy, public policy dialogue, joint regulation, and efforts to build or strengthen public institutions and administrative. Examples include:

munity

Local, national and international

- Build industry-wide alliances to mobilise and leverage business leadership, resources and influence.
- Participate in multi-sectoral action on solutions to nutrition literacy and physical activity, to influence the enabling environment and support systemic change at a local, national and international level.
- Strengthen public institutions and health systems through capacity building and educational campaigns.
- Promote voluntary initiatives to promote transparency of regulations.
- Engage in policy dialogue to advocate for greater commitment to the production, distribution and consumption of nutritious food.
- Partner with government to develop educational curricula around health issues.

in existing products, and practising responsible marketing. Manufacturers could re-formulate recipes to reduce sugar, fat, salt content and reduce portion sizes as well as improve consumer labelling to facilitate healthy choices, etc. Retailers could encourage clearer nutritional labelling and change their marketing practices by providing sales promotions on healthier product ranges such as on fruit/vegetables, by removing sweets from check-outs; by engaging in customer education programmes and advancing voluntary measures to restrain marketing to children.

Hotels and restaurants could provide healthier options e.g. salads;

provide clearer nutrition information on menus to facilitate healthy choices and reduce portion sizes. The airline industry could provide healthy menu choices for passengers and schools and related institutions could improve school menus; the automotive industry can develop programmes to promote physical activity and reduce air pollution in cities where pollution is a major health threat. The media entertainment and communications industry could address increased concern over sedentary lifestyle contribution and 'aggressive' advertising and partner to implement creative projects in mainstream media content and public service. Pharmaceutical and healthcare companies could


enhance patient and professional education, promote health education messages; encourage prevention/treatment compliance and increase access to affordable and rationale use of medicines to control the major chronic diseases.

Figure 4 provides a general framework for action by companies based on business's 'spheres of influence' – from their own workplace, through the markets and communities in which they operate to the local, national and international enabling environments in which they function.

In almost all cases, business actions will require, or be greatly enhanced by, working in partnership with communities, with NGOs, with public health agencies and/or with other companies.

The realities of working in partnership

Starting a multi-sector partnership

Multi-sector partnerships can be initiated by any sector or organisation involved. For example, in one particular area there might be large local employer wishing to take the lead; in another it might be a concerned local health NGO. Whoever takes the lead the involvement and 'buy-in' from a range of other key stakeholders from the start. These coalitions may start modestly by focusing on a specific pilot initiative, but wherever possible it is important that issues are addressed in an integrated way, aiming ultimately to make an impact through large-scale implementation. In addition, projects should be designed in a way that their impacts can be monitored and evaluated over both the short and long term.

The partnership needs to clearly define what changes and actions are intended: is the intention of a collective action to change business practices (e.g. changes in products, services and policies by companies); is the aim to provoke institutional changes and innovations (e.g. schools and school curricula, workplaces, community, institutions and other public settings), or are changes addressed to improve local health services – including those aimed at primary, secondary and tertiary prevention, as well as treatment. Finally, changes and actions can also be aimed at changing personal behaviour (e.g. improvements in nutrition, literacy, changes to diet, physical activity levels and other relevant aspects of lifestyle).

When joining a cross-sector partnership, it is important that potential conflicts of interest are addressed early on. Partnerships in sensitive areas such as health, education and marketing will often give rise to conflicts of interest between all parties, particularly between public aims and commercial objectives; not least with children and in educational settings. While it is reasonable to expect that all partners 'get something out of it' and that partnerships built on a 'win-win' formula will have more impact, attract more resources and be more sustainable – a balance has to be found to ensure that individual partner or commercial interests do not undermine public health and education goals.

It is important to appreciate that entering a partnership does not mean a complete endorsement of the other partners, nor giving up their rights to be publically critical of others in areas outside the partnership. For example, while Greenpeace was in a partnership with the energy company Npower to promote a new renewable energy tariff, Greenpeace shutdown one of Npower's power stations by scaling a tower in order to protest at the use of coal to generate power.

Risks of partnering

Before seeking to enter partnerships, all parties involved need to consider the risks involved in partnering, many of which can be mitigated through careful planning, and open communication:

- Loss of autonomy partners can no longer make decisions and act autonomously and must abide by whatever decision has been agreed within the partnership.
- Conflicts of interest a private sector partner which puts

Box 2: The Business Case

Companies that invest in a healthy workforce, as well as workplaces, benefit from increased productivity and morale, as well as lower absenteeism and healthcare costs, all of which pose a serious threat to company competitiveness. By engaging in community initiatives in the field of NCD prevention and treatment - through partnership with schools, institutions, community groups, sport and leisure facilities etc - companies retain the trust of their consumers, can convince influential stakeholders (such as NGOs, campaigners, governments, etc) of their intentions to be responsible corporate citizens and can also improve a company's reputation and retain a better position on the recruitment market. Companies, investing in activities in the marketplace developing new products and services, finding new business opportunities and exploring the potential for new markets can increase their sources of income, protect their market share and financial returns as well as retain the confidence of shareholders and gain a competitive advantage. Finally, in terms of the enabling environment in which companies operate, cross-industry partnerships with governments and NGOs can lead to more appropriate and implementable voluntary or mandatory regulation, for example around the exclusion of unhealthy ingredients. Such regulation can provide a level-playing field for companies wishing to act more responsibly without losing out to less responsible competitors.

considerable resources into a cross-sector partnership might also be, or wish to become, a commercial supplier to a partner organisation.

- Time investment in partnership-building a major transaction cost to working in partnership is the very significant time it takes to develop and set up a well-functioning partnership and the need to continuously review and maintain the relationship.
- Implementation difficulties partnerships require a non-traditional way of working, with an unfamiliar shared leadership and shared implementation which may cause challenges, particularly where roles and responsibilities are not sufficiently well defined.
- Confused accountability partners must remain fully accountable to their own stakeholders, while also being accountable to the partnership itself.
- Negative reputation impact by publically associating with others through a partnership, there is the potential for reputational damage based on the actions of partners.

The challenge of partnering

Bringing together different sectors with their different motivations, interests, cultures and even vocabularies to agree on shared objectives and work successfully together is challenging. It requires all parties to have an understanding of partnership, a partnering mindset and a particular skill set. It also needs a well-managed partnership-building process.

Each partner needs the ability to listen to and understand the real interests, needs and constraints of the others and in turn be transparent about and ensure that other partners understand theirs. Partners need to be flexible, open to new ideas and be prepared to compromise where they can (while being clear where they cannot). By being willing to work outside 'business as usual', by opening themselves up to the wider space their collective resources define, and by thinking as a partnership not as individual organisations, partners can achieve real innovation in design and implementation.

Role of the partnership 'broker'

Partnerships of any degree of complexity do not simply fall into place, but go through a process of development. In many cases there is an individual who takes on a major role making it happen. The role of a partnership 'broker' is a vital one, to build the relationship, ensure that the partners understand each other, and to lead them through the different stage. Brokers may be 'internal' – i.e. they are from one of the partners – or they may be third-party 'external' brokers. Having an independent broker can be particularly valuable where, for whatever reason, partnering is likely to be difficult due to a lack of trust or where significant interest-based negotiation is required to bring partners' diverging positions closer together.

Success factors

Experience of running partnerships has led to the identification of a number of common success factors for effective partnerships, including:

- Core partnering principles: equity, transparency and mutual benefit.
- Co-creation, with all partners contributing to the design of the programme, thereby building buy-in and the potential for greater innovation.
- 'Smart' objectives Specific, measurable, attainable, relevant and time-bound.
- Solid institutional commitment from the partners, embedding the partnership beyond the individuals tasked with representing the

partner.

- Strong relationship management, including allocating adequate resource to the process of building the partnership.
- Strong project management, to ensure a focus on the delivery of objectives.
- Good internal and external communication plans agreed by all the partners.
- Clear roles and responsibilities to ensure nothing falls through gaps between partners.
- Built-in review processes ensure both the project and the relationship remain on track.

Systematically fostering partnerships

Despite their significant potential, there are to-date relatively few examples of cross-sector partnerships working on issues around NCDs. There are a number of steps that need to be taken to increase their number and effectiveness.

Although not a new concept, cross-sector partnerships are still far from entering many organisations' consciousness as a way to help them achieve their goals. In part this could be down to a lack of exposure to the concepts and to sufficient examples of partnerships demonstrating success in areas of direct relevance to organisations. There may also be attitudinal issues preventing organisations reaching out and partnering with other sectors.

Step 1: Raise awareness and make the case for partnership more widely through case studies, newspaper articles, speaking opportunities, networking, partnership 'road shows'.

Good partnering takes a particular mindset and a particular skill set. For an organisation to be an effective partner, it also needs to have the systems in place and flexibility of institutional arrangements that can support collaborative working.

Step 2: Develop capacity of individuals and organisations to partner effectively, through training, provision of support and advice, access to tools and guides.

Partnerships often come about quite haphazardly based on chance meetings. A more systematic approach is necessary to create real opportunities.

Step 3: Build opportunity for partnership through marketplace events, regular multi-stakeholder dialogues, provision of grants. PAHO's new Partners Forum for Action on Chronic Diseases is an example of an initiative which is attempting to put into place such systematic fostering of partnerships.

Partnerships including the business community aimed at preventing and tackling NCDs: some examples

Plaza Sesame promotes healthy habits for life.²⁴ Sesame Workshop, the non-profit organisation behind Sesame Street, and Tetra Pak, a global food processing, packaging and distribution company created a unique partnership in order to deliver fundamental health messages to children in Mexico. As part of overall Healthy Habits outreach programme, *Plaza Sésamo²⁵* characters and key health messages appear on milk containers provided by Tetra Pak and are distributed via DIF's (Integral Family Development) School Meal Plan, a nutrition programme for undernourished children. The objective of the partnership is to increase awareness by leveraging Tetra Pak's distribution network and popularity of Plaza Sésamo, The partnership was launched in 2007 and has now expanded to several Mexican states reaching close to 1.5 million children. A

recent impact study from Yucatan demonstrates the great success of PPP: 68 per cent of parents and 71 per cent of teachers in experimental group perceived positive changes in children's nutrition and hygiene habits and all participating teachers stated that it is very important to permanently include the programme in schools.

- PAHO's Partners' Forum for Action on Chronic Disease was officially launched on December, 2009, as a catalyst for multi-sector partnerships that drive direct social, environmental and policy action to promote health and prevent chronic diseases. The Forum brings together a range of talents and perspectives from across all the sectors to help raise awareness about chronic diseases, advocate for changes in public policy, and expand existing and develop new partnership initiatives aimed at reducing risk factors and improving treatment of chronic diseases. The Partners' Forum is being created by PAHO in collaboration with the International Business Leaders Forum (IBLF), the Pan American Health and Education Foundation (PAHEF), the World Economic Forum (WEF), and in consultation with the CARMEN network, the WHO/WHO Collaborating Centres; international NGOs and Consumers International. *Further information: http://PartnersForum.org*
- The Drinkaware Trust was established in the United Kingdom to improve public awareness and understanding of responsible drinking and change the nation 's drinking behaviour for the better. The Trust is a unique partnership involving industry and the health, education and voluntary sectors. It was established in 2006 with the signing of a Memorandum of Understanding (MoU) between the Government and the Portman Group – an industry association of eight major alcohol manufacturers that was set up to encourage responsible drinking. Under the MoU, the Portman Group agreed to transfer its existing educational resources to the Trust, including its flagship initiative, the website www.drinkaware.co.uk. *Further information: www.drinkaware.co.uk*
- The Trans Fat Free Americas Initiative was an initiative started by the Pan American Health Organisation-led taskforce to eliminate industrially produced unhealthy trans fatty acids from foods in the Americas. A number of companies had already been voluntarily reducing their use in their products and in some countries there were already regulations banning their use. In Rio de Janeiro, June 2008, PAHO convened a group of public health authorities, representatives of the food industry and cooking oil companies who signed a Trans Fat Free Americas Declaration to eliminate the use of trans fat through a combination of both public and private actions.
- Change4Life is a United Kingdom society-wide movement that aims to prevent people from becoming overweight by encouraging them to eat better and move more. It is the marketing component of the Government's response to the rise in obesity. The campaign aims to inspire a societal movement in which everyone who has an interest in preventing obesity, be they Government, business, healthcare professionals, charities, schools, families or individuals, can play their part. The Change4Life advertising campaign began in January 2009 and in the initial stage targeted young families with children aged 5-11 years. Since its launch the movement has grown to targeting parents of 1-4 year-olds and babies. Commercial organisations are involved as they can best reach the target audience. By working in partnership with them, government can tap into the power of brand loyalties and make changes in food manufacturing and shopping habits, supporting new activity schemes and spreading the word in the media. Before any

commercial company can work with us on the Change4Life movement, they must sign up to agreed Terms of Engagement. These require companies to commit to working with us on both healthy diet and physical activity initiatives.

Further information: http://www.nhs.uk/change4life/Pages/Default. aspx

- Caribbean Wellness Day, which is celebrated on the second Saturday in September, evolved out of the Declaration of Port-of-Spain, agreed on by CARICOM Heads of Government during a meeting in Trinidad in 2007. The Declaration outlines the framework guiding a broad scale united effort by member countries to combat the spread of chronic diseases.
- EPODE (Together Let's Prevent Childhood Obesity) is a methodology designed to involve all relevant stakeholders in an integrated and concrete prevention programme aimed at facilitating the adoption of healthier lifestyles in everyday life. The first EPODE programme started in France in 2003 and now extends to nearly 1.8 million inhabitants in 167 French cities, 20 cities in Spain and 8 cities in Belgium. The programmes were developed on the basis of being long term, aiming at changing the environment and ultimately unhealthy behaviour. The approach is a 'positive, concrete and stepwise' learning process with no stigmatisation of any culture, food habits, overweight and obesity. Success to date is measured by a large field mobilisation in the pilot cities and by the encouraging evolution of the BMI of children in France within the pilot cities. The EPODE programme is partly funded by stakeholders from the industry – according to the programme coordinators this being one of the strengths and key components of the programme, as corporate partners keep the public costs down - an ethical charter makes sure that economic interests are not affecting the programme. EPODE is about to be implemented in Greece, Québec (Canada) and in Australia.

Further information: http://www.epode-european-network.com

The EU Platform for Action on Diet, Physical Activity and Health was created in March 2005, as part of an overall EC strategy on nutrition and physical activity to respond to the rising obesity epidemic in Europe. A cross-sector group of stakeholders agreed that promoting healthier diets and more physical activity among Europeans is the key to tackling this problem. All platform members have agreed to devote an increasing level of resources and effort either to extend existing initiatives or launching new actions designed to reverse the obesity trend, to pool Europe's knowledge on what works/what does not and to disseminate best practice across the European Union. The EU Platform also acts as a forum where good practice from one country can rapidly be disseminated and replicated across the continent.

Further information: http://ec.europa.eu/health/nutrition_physical_ activity/platform/index en.htm

▶ Launched in November 2002, Media Smart is a non-profit media literacy programme for school children aged 6–11 years old, focused on advertising. It develops and provides, free of charge and on request, educational materials to primary schools that teach children to think critically about advertising in the context of their daily lives. Media Smart is funded by the advertising business in the United Kingdom and is supported by the United Kingdom and European Union governments. An expert group ensures the quality of the programme by writing, reviewing and approving the teaching materials. Media Smart is now recognised by many as a world-class media literacy programme. It is the only programme in Europe that brings together the resources of the industry, expertise of leading academics and the advice of the government into one comprehensive national programme.

Further information: http://www.mediasmart.org.uk

Pfizer and the Pfizer Foundation has provided more than US\$47 million over four years (2007-2010) to address emerging challenges in cancer and tobacco control in 46 countries across five continents. This partnerships programme helps cancer and tobacco control organisations with training and technical assistance, national cancer control plans and improvement of patient services. The programme collaborates with local experts to improve the diagnosis and treatment of cancer and reduce its incidence and burden. Technical assistance and evaluation support is provided by the Bloomberg School of Public Health at Johns Hopkins University. This partnership aims to support cancer and tobacco control programmes that offer cancer screening, quit-lines and counselling services; work with local partners to raise awareness of the need for cancer screening and consequences of tobacco use; provides technical assistance and evaluation support to cancer and tobacco control organisations and shares effective public health models and supporting patient advocacy.

Further information: www.pfizerglobalhealth.com ◆

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Olive Boles, is the International Business Leaders Forum's Director of Global Health Partnerships. Since 2004 her role has been to engage business as a responsible partner for health inthe marketplace, workplace and community - with an emphasis on developing countries and emerging markets. Before joining the IBLF Olive was Director of Corporate Affairs with The Prince's Foundation, having previously occupied senior management positions within the UK national health service (NHS) and worked on several major national public health campaigns on HIV/AIDS, smoking and CHD prevention. Olive was a Regional Director of Health Education and an Executive Director of a Primary Care Trust before moving to the not-for-profit sector to work on public/private partnerships in the field of urban regeneration, community development and more recently on health. In 2005 she obtained a Post-Graduate Certificate from the Programme for Sustainable Leadership at the University of Cambridge.

Darian Stibbe, is the director of The Partnering Initiative (TPI), a specialist agency of the IBLF, dedicated to driving widespread, systematic and effective collaboration between civil society, government and business towards a sustainable future. His specialism is partnerships with the public sector - helping governments, donors and UN agencies to engage other sectors and partner more successfully

through capacity building, strategic support and advice, and action research. Prior to TPI, Darian was for five years the director of the Centre for the Advancement of Sustainable Development Partnerships. Darian is a professionally accredited partnership broker (PBAS) with a range of publications focusing on cross-sector partnering and a PhD in quantum physics.

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Annex

Country health-related MDG information

Introduction to country MDG information

This annex contains information relating to the three health MDGs, as well as life expectancy. The data is graphically presented for each country. The graphs have been formulated using data from various United Nations agencies. To ensure the accuracy of the data for each country, it was cross-checked using multiple sources. However for the sake of uniformity, the data presented for each health area was taken from one source, as follows:

- Life expectancy World Bank statistics http://data.worldbank.org/country
- Child mortality rates UNICEF data bank http://www.unicef.org/infobycountry/index.html
- Maternal mortality rates World Bank http://data.worldbank.org/country WHO – http://www.who.int/countries/en/
- Malaria WHO (World Malaria Report 2009) http://www.who.int/malaria/world_malaria_report_2009/en/index.html
- Tuberculosis World Bank statistics http://data.worldbank.org/country
- HIV/AIDS UNAIDS -

http://www.unaids.org/en/CountryResponses/Countries/default.asp

Despite the comprehensive data collection, for various reasons data from the sources used, was not available for all countries for all the health areas. The unavailability of data was a reflection of:

- ratios or rates that are too small to capture;
- a specific disease being non-endemic in that particular country;
- data just being unavailable from the sources used.



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Australia

Joined Commonwealth 1931

Population 20,951,000 (2008) Area (km) GNI (USs)

7,682,395





Child mortality rates



Maternal mortality rates

10

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G

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Incidence of tuberculosis





HIV deaths in adults and children









Reported malaria Deaths





HIV deaths in adults and children



30.05



1000

HIV deaths in adults and children



Commonwealth Health Ministers' Update 2010 155



HIV deaths in adults and children





50







Maternal mortality rates





Incidence of tuberculosis (per 100,000 people) 29,000 880 700 15,000 600 5200 10,000 455 300 5,000 200 10.0 0 2008 3003 8000 1990 1995 2000 30,05

HIV deaths in adults and children

HIV/AIDS response in Botswana

Dr Khumo Seipone

Director, Department of HIV/AIDS Prevention & Care, Ministry of Health, Botswana

Country facts

- Located in Southern Africa.
- Home to Okavango Delta and diamonds.
- Area: 600, 000 sq. km².
- Multi-party democracy.
- 1.7 million people.
- Life Expectancy: 55.6 yrs.
- Annul population Growth: 2.3%.
- Healthcare decentralised to all 24 districts.

National HIV/AIDS repsonse

- Community home based care.
- Behaviour change intervention and communication.
- Life skills education.
- HIV counselling and testing.
- Prevention of mother to child transmission of HIV.
- MASA ART programme.
- Community home based care.
- Workplace wellness programme.
- HIV surveillance, monitoring evaluation and research.
- KITSO HIV/AIDS training.
- Sexual Reproductive Health.
- National TB programme including IPT.
- National blood and blood products safety programme.
- Orphan and vulnerable children programmes.

Status of the HIV epidemic in Botswana

- Botswana was among the countries hardest hit by HIV/AIDS.
- First case of AIDS diagnosed in 1985.
- HIV prevalence rate at 17% of the total population aged 18 months and above (20,040, while prevalence in pregnant women aged 15-49 is 33.4%).

National HIV/AIDS programmes

- **Behavior Change Intervention Communication** Advocacy – leadership and resource mobilisation.
- Material development and training Information dissemination and skills building.
- Mass media.
- Capacity building.
- Community mobilization and participation.
- Life skills education.

National ART programme

- One of the first country in Africa to establish a National ART Programme.
- > Total of 32 ART sites and 112 satellite clinics in 28 districts

countrywide.

- Total 120,000 (out of 110,000 estimated in 2011) have been reached for treatment – 97 595 access in public facilities.
- About 11,300 outsourced to the private sector.
- A total of 11,000 are private patients.

Mother to child transmission of HIV

- Botswana has about 40,000 deliveries per year.
- HIV prevalence rate of 33.7% (SS 2007) in pregnant women.
- Approximately 13,500 HIV-infected women deliver per year.
- > 95% ANC attendance and Hospital based deliveries.
- ♦ 89% PMTCT UPTAKE.
- Reduced MTCT rates to 3-4% (out of the estimated 40% without PMTCT).

Mobile populations and HIV

- Estimated 127,939 people crossing border into Botswana for 2008.
- In general Botswana is a mobile population.
- (3 homes, mine workers, urbanization, major highways).
- 8 cross border & High Transit districts.
- 6 districts with mine activities, 1 seasonal firm district.
- 12 Truck stations.
- 1 refugee camp.
- Several construction sites/workers.

Cross border initiative

- Pilot project (DFID/SADC) with the aim of strengthening STI/HIV services along cross – border High Transit areas – BNLS 2003- 2006.
- Implemented in 3 sites of Kasane Chobe, Serowe Palapye-South/East- Plan to roll it out in the future.

Access of HIV/AIDS/STI services

- All 26 Health districts provides HIV AIDS and STIs services that are integrated into PHC.
- All prevention services are provided at no cost to all clients (BCIC, HCT-VCT,STI).
- Public sector ART at no cost for citizens.
- ART Private employees civil servants through Medical AID scheme.
- Mine workers & uniformed services have special programs within their work place programs catering for preventive & ART services.
- Private medical practitioners (PPP outsource & non-citizens).
- Some NGOs cater for special groups for both prevention care & support e.g refugees.
- Policy provision for construction workers.

Achievements

Preventive services are accessible to all at no cost countrywide – STI,

Figure 1: Routine HIV Testing Cummulative report Year: 2005 to 2008



Condoms, IEC/BCC materials, VC

- Knowledge of HIV/STI is high among community >90%.
- Reduced # of GUD cases by 50% as a result of Acyclovir & ART roll out with increased condom use.
- Increase in HCT uptake. 53% know their HIV status as a result of RHT roll out.
- PMTCT Programme uptake stands at 89% and decline in the transmission rate from the originally estimated 40% when there was no intervention to 3 - 4% in 2008.
- >100% of the targeted eligible HIV positive clients access ART through MASA program countrywide. Improved life and reduced death due to AIDS.
- Reduced # of clients in need of CHBC from 12,000 to <4,000.
- Stable HIV Prevalence with decline in the younger age group.
- Stabilization of the orphan population to 50 000 for the past 4 years.

Challenges

- Mobility and HIV is complex.
- Capacity (HR, skills, infrastructure).
- Supply chain management (different level).
- ART drug resistance, adherence (mobility issue).
- Behavior change as an individual response and as process that needs time.
- Sustainability of the national response.

Partnerships

- Botswana adopted the UNAIDS 3 ones principle of one coordination body (National AIDS Council) agreed plan (Botswana National Strategic Framework), one monitoring and evaluation system.
- CDC/BOTUSA (Botswana/USA partnership): Provide Technical assistance, consultation, funding, and conduct research with the Government and other local and international partners for prevention, treatment, care and support, and Surveillance of HIV/AIDS, Tuberculosis, and related conditions.
- PEPFAR: HIV Prevention, Treatment, Care and support, and Strategic Information management.
- Peace- Corps Botswana: Design and implement a project that supports Government of Botswana's efforts to achieve the goals set out in the National strategic Framework.

om partners.

2021. Wide availability of ARVs increases survival and reduces opportunity cost of HIV/ AIDS services such as orphan care, CHBC, and inpatient care.

Current status of the fiscal

- Increased survival results in increased life expectancy, especially in the reproductive age group.
- Increase in productivity accelerates GDP.
- Better HIV/AIDS response is partly offset by influx of donor funds to continue to fund HIV/AIDS prevention and treatment.
- Due to the above challenges the government has pledged to continue prioritise funding for HIV/AIDS amidst the economic crisis.

Conclusion

- Despite its middle income status Botswana needs partnerships.
- Health care provision to meet MDGs and strengthen response to both communicable and non-communicable diseases.
- Sustained HIV and AIDS response to increase life expectancy.
- Health sector systems strengthening and reforms in health financing and economic diversification for stable economy.
- OTHERWISE low life expectancy will result in low productivity resulting in decreased GDP, with a possibility of REVERTING TO LOW INCOME AND POOR HEALTH INDICES.

Way forward

- Botswana continues to adapt strategies that could enhance the commitment to halt new infections by 2015 which include.
- Prevention as a priority area for the national response as evidenced by the development of a National prevention plan.
- TB/HIV pilot program for health care workers and clients.
- Scale up of male circumcision as additional strategy for HIV/STI prevention.
- Development of strategies for Prevention with positive, condom, Faith Based Organisation, Youth.
- Development of strategy on MARPS (cross border expansion).
- Foster strategic partnerships (community/private sector/parastatal) through social dialogue.

Date of submission April 2009



Brunei Darussalam

Joined Commonwealth Population Ama (km) GDP (USS) 1984 5,765 10bn (2007) 398,000 (2008)





Under-s mortality rate infant mortality rate (under 1)



Incidence of tuberculosis (per 100,000 people)



1050 1001 3000

2005

160 Commonwealth Health Ministers' Update 2010







k

1999

2005



HIV deaths in adults and children





COOK Islands

mmonwealth	Popula
	21,80

ulation 300 (2007) 609 (USs) 183m (2005)

Area (km)

237













Reported malaria deaths





166 Commonwealth Health Ministers' Update 2010

1995

3822

30.05

2008

50





HIV deaths in adults and children





Grenada

Joined Commonwealth	Population	Area (km²)	GNI (US4)
1974	106,000 (2008)	345	505m (2007)

Life expectancy







20:02

2005

20 CH

1990

1993

Incidence of tuberculosis

168 Commonwealth Health Ministers' Update 2010



Maternal mortality rates

Incidence of tuberculosis (per 100,000 people)



HIV deaths in adults and children







Reported malaria deaths









HIV deaths in adults and children





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HIV deaths in adults and children









Incidence of tuberculosis (per 100,000 people)













Life expectancy





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Incidence of tuberculosis (per 100,000 people)



Mauritius and the health-related Millennium Development Goals

The Republic of Mauritius is one amongst the world's Small Island Developing States (SIDS), located in the Indian Ocean at latitude 20° south and longitude 58° east, some 800 kms from the south-east of Madagascar. The Republic consists of a main island (Mauritius) and a group of small islands and islets namely Rodrigues, the Cargados Carajos, Agalega, Tromelin and the Chagos Archipelago, with a total land area of 2,040km². Formerly, being a British colony, the country attained Independence in 1968. Its population, as at end of December 2008, was 1,271,742. With a per capita income of around only US\$250 at the time of independence in 1968, the country successfully moved from a low-income agricultural-based economy to a diversified upper middle income economy. Per capita income is at present US\$6,133.

Mauritius and the health-related Millennium Development Goals

Mauritius has continued to successfully implement the MDG's in all sectors and has made significant progress in the health sector despite various challenges. The country has a fully functioning and equitable health system - a prerequisite for reaching the health MDGs. The Programme-based 'Budgeting for the Public Health Sector' is at present MDG-oriented. The results-based approach has further strengthened effective policy-making by sustaining on-going and developing new health programmes. From a policy perspective, the MDG targets and indicators have played an important role in drawing attention to critical health and development needs of the country. They have also succeeded in focusing attention on the importance of sound data as a basis for policy and decision-making.

Goal 4 - Reduce child mortality

Target: Reduce by two third between 1990 and 2015, the under five mortality rate.

In Mauritius, the under five-mortality rate (death of children aged below five years) decreased from 23 per 1,000 live births in 1990 to 18 in 2000; and it further declined to 16 in 2009. The infant mortality rate (death of children aged below 12 months) decreased from 20 per 1,000 live births in 1990 to 16 in 2000; it was 13 in 2009.

Government provides free healthcare facilities, amongst which is free immunisation against infectious diseases. In 2009, the percentage of children immunised against measles was 99 per cent compared to 91 per cent in 2000 and to 84 per cent in 1990. The provision of neonatal intensive care services at two of the regional hospitals has positively contributed to the drastic reduction of the infant mortality, which declined from 19.2 in that year to 15.8 in 2000.

Goal 5 - Improve maternal health

Target: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.

Maternal mortality ratio in Mauritius has remarkably decreased from 66 per 100,000 live births in 1990 to 17 in 2006. The main attribute for this marked decrease in maternal deaths is that most of the deliveries were assisted by skilled health personnel, including amongst others

specialist, doctors, nurses, midwives etc. Evidence- based indicators show that the proportion of deliveries assisted by skilled health personnel is above 99% since 1999. However, it is noted with due concern that maternal mortality has been on the rise during the last three years. 10 Maternal deaths have been registered in 2009 as compared to 6 in 2007. To deal with this situation, necessary remedial measures have been undertaken.

Policy to attain the MDG No 4 and No 5

In view to reverse the increasing trend in maternal mortality recorded since 2007 and sustain the decreasing trend in child mortality, the strategy adopted in 2009 has been to further strengthen the Maternal, Neonatal and Child Health Services. The Neonatal Intensive Care Service will be extended to the three remaining Health Regions. The number of medical specialists is being increased to ensure a '24 hour/7 days' presence of paediatricians, obstetricians and gynaecologists in all the five regional hospitals. Further, pregnant women are encouraged to attend ante-natal clinics as from the first month of pregnancy; they are being examined by obstetricians and gynaecologists at the peripheral level of care for early detection of complications. These programmes are in line with the National Sexual and Reproductive Health Strategy 2009 – 2015.

Government is also planning to set up a specialised hospital dedicated exclusively to womens' health. High-tech care to deal with causes of women morbidity and mortality will be provided. For example, the service of screening for early detection and treatment of breast and cervical cancers will be strengthened.

Goal 6 - Combat HIV/AIDS, malaria and other diseases

Target: (i) Have halted by 2015, and begun to reverse, the spread of HIV/AIDS. (ii) Have halted by 2015, and begun to reverse the incidence of malaria and other major diseases.

HIV/AIDS

The prevalence rate of HIV/AIDS among pregnant women aged 15-24 years had remained below 0.3 per cent for the period 1999 to 2007. This rate has increased to 0.54 per cent and 0.56 per cent in 2008 and 2009 respectively despite the low prevalence rate of HIV/AIDS in the country being mostly concentrated among injecting drug users. In
2009, 50 per cent of those pregnant women infected with the virus were among known HIV cases.

At the beginning of the epidemic, the mode of transmission of the virus was essentially heterosexual and as from year 2000 a gradual shift to transmission through injecting drug users was seen to emerge: this trend became evident in 2003 where 66 per cent of the new cases were detected among injecting drug users (IDUs). The population of IDUs includes sex workers and prison inmates. In the year 2000, only 2 per cent of the new infected cases were among IDUs. It increased to 14 per cent in 2002, 66 per cent in 2003, 87 per cent in 2004 and 92 per cent in 2005. Since then, it started to decrease to reach 73 per cent in 2009.

The number of new cases of HIV/AIDS among Mauritians has started to increase as from 2000 when it was 50 to reach 921 in 2005. However, the reported incidence has stabilised around an annual average of 540 cases between 2006 and 2009. The HIV prevalence among adults aged 15-49 years, as estimated by the UNAIDS, stands at 1.9 per cent in 2009.

In view of minimising the risk of new infection by the HIV virus in Mauritius, the National Strategic Framework for HIV/AIDS 2007-2011 is being implemented to expand HIV/AIDS related services by, inter alia:

- Reinforcement of sensitization campaign with focus on vulnerable groups.
- Decentralization of the testing and counseling facilities to district hospitals and
- area health centres.
- Setting up of additional treatment and care centres.
- Setting up of additional Methadone dispensing units.
- Strengthening of the needle exchange programme.
- Enhancing the early detection capacity.

To maintain a zero local transmission of malaria, preventive measures such as vector control, disease surveillance and early detection and treatment are maintained. As regards to tuberculosis, nearly 100 per cent of newborns are vaccinated against the disease. The DOTS strategy is fully implemented for detection and treatment. Foreign workers entering the territory are screened for various diseases including tuberculosis. Special attention is being given to people living with the HIV virus.

A multidisciplinary approach has been adopted to deal with the top prevalent chronic diseases through a set of policy and legal framework. These include the implementation of the National Plan of Action for Nutrition, the National Service Framework for Diabetes, the Food Act and Food Regulations, and the Regulations to control tobacco and alcohol consumption. An Action Plan against cancer is being finalised. Further, health programmes based on promotion for healthy lifestyle, disease prevention campaigns and screening service have been strengthened. A Diabetes and Vascular Health Centre has also been set up.

In view of providing a quality health service to the elderly, a geriatric hospital will be set up. This hospital will be exclusively dedicated to the growing needs of the elderly through personalised and high-tech care.

Malaria

Malaria is almost negligible in Mauritius. All malaria cases registered in the country since 1998 are imported ones. The last single case of indigenous malaria was registered in 1997. The numbers of imported cases have also decreased from 73 in 1999 to 23 in 2009. Death rate due to malaria is very low. Indeed, only 5 deaths occurred since 1990

with the last one registered in 2005. Tuberculosis

The incidence rate of tuberculosis has stabilised around a yearly average of 9 per 100,000 people during the last 10 years. Death rate associated with tuberculosis is very low in Mauritius; it stood at 1.3 per 100,000 people in 2009 against 2.4 in 1990. The percentage of tuberculosis cases detected and cured under DOTs Strategy (Directly Observed Therapy Short Course) treatment was above 85 per cent for the period 2000–2009.

Other diseases

Mauritius has reached an advanced stage in its demographic and epidemiological transition. Communicable diseases and problems of maternal and child health have markedly declined. Non-communicable diseases (NCD) such as diabetes, cardiovascular diseases and cancers are now major concerns in the country. The prevalence of diabetes is around 24 per cent among adults of 25–74 years and more than one-third of the population in that age-group is hypertensive. Fifty per cent of deaths are attributable to cardiovascular diseases including those as consequent of diabetes, and mortality due to cancers has reached 12 per cent.

Free healthcare to the whole population through a reinforced regionalised primary healthcare network is one of the pillars of the welfare state in Mauritius. Life expectancy at birth has continuously increased from 70 years in 1990 to 73 years in 2009. The ageing population, with 7 per cent of the population now being 65 years and above, is a real challenge to the health systems, already under pressure due to the growing burden of chronic diseases.

Diabetes

A rapid improvement in the economy of Mauritius has led to changes in lifestyle such as physical inactivity, unhealthy eating patterns and abuse of tobacco and alcohol, resulting in a substantial rise in non-communicable diseases, including diabetes. The majority of persons with diabetes in Mauritius have type 2 diabetes.

There is a high rate of not only diabetes but also of prediabetes in the Mauritian population. Data from the Non-Communicable Diseases Risk Factor Survey 2009 documents that in the adult population aged 25-74 years:

- The prevalence of diabetes is 23.6 per cent, and there are an estimated 172,400 people between the ages of 25-74 years with diabetes in Mauritius.
- The prevalence of diabetes has increased by over 60 per cent since 1987 in our adult population aged 25-74 years.
- Almost 1 in 2 Mauritians aged 25-74 years is either diabetic or is prediabetic.
- > 37.9 per cent of people have high blood pressure.
- ♦ 50.9 per cent of the participants are either overweight or obese 46 per cent of which are men and 55.6 per cent women.
- Only 16.5 per cent of Mauritians aged between 24-74 years carry out sufficient physical activity, 10.9 per cent being women and 23.2 per cent men.

The cost of treating the disease and its complications represent a huge financial burden to the state. At present:

- Approximately nearly 1,000 patients are under dialysis.
- Some 450–500 open heart surgeries are being done annually.
- About 2,500 angiographies/angioplasties are being undertaken

annually.

- > Some 175 eye surgeries are being done weekly.
- There are approximately 400 cases of lower limb amputation linked to diabetes every year.

The Government is firmly committed to the concept of a welfare state and recognises the importance of investing in health. To attain these objectives, a multi-sectoral approach is being adopted in all strategies, enlisting the support inter-alia of the private sector, NGOs and the civil society.

A number of measures have been put in place in the fight against Diabetes

Government has included a National Service Framework for Diabetes (NSFD) in its programme 2005-2010. This framework sets out aims and key interventions together with the implications for planning services that are important in improving the prevention and care of diabetes in Mauritius. In fact, it is the first time that a comprehensive policy has been developed within the Ministry of Health and Quality of Life to deal with one of the most important public health problems, namely diabetes.

The aims of the NSFD are to:-

- improve services to drive up service quality;
- develop a patient centred service; and
- improve health outcomes for people with diabetes.

It is estimated that a ten-year period will be required for Mauritius to achieve all the standards, during which all aspects of diabetes care will be re-engineered so that modern and up to date services are delivered to the persons living with diabetes. The implementation of the NSFD is well underway and the following activities have already been implemented:

At primary level

Mobile clinics have been set up in each health region and in Rodrigues. Through these mobile clinics, a number of services are offered to the population at grass roots level. These include among others:

- a. Screening and early detection of risk factors of NCDs diabetes, obesity, hypertension, vision and risk factors for NCDs.
- b. Screening for cervical and breast cancer in women.
- c. Healthy cooking demonstrations.
- d. Oral health counselling and dental check up.
- e. Demonstration of physical activity and yoga.

A secondary school health programme and a school health card project were launched on 20 February 2007, and have been extended to the tertiary education institutions as well.

Targeted screening that is screening on appointment at the area health centres for people who have not been screened over the past three years has been introduced.

The health promotion programme has been decentralised and teams have been set up in each of the health regions, to conduct talks on healthy lifestyles in schools, workplaces and community centres. Health professionals with the support of the community systematically plan outreach interventions with the different target population groups. These interventions include:

- Talks about the benefits of a healthy lifestyle.
- Healthy cooking demonstrations.

- ♦ A series of 14 television programmes, titled Diabetes: FULL STOP! have been developed in order to target diabetes in Mauritius and in Rodrigues. Each programme is aired once a month and touches upon the different themes pertaining to diabetes.
- Seven physical activity clubs are operational at community level to provide an enabling environment for people to practice physical activity. Health tracks are also being set up at various sites throughout the island, and physical activity classes have been extended to 23 centres (welfare centres, community centres, village and social halls) across the island.
- Capacity building for community leaders and members of NGOs and CBOs to enlist community participation are ongoing.
- The sale of aerated soft drinks has been banned in our educational institutions as from the beginning of 2007, and the Food Act has been amended to control the sale of foods in school canteens as from January 2010.
- A National Action Plan on Nutrition has been prepared and a National Nutrition Task Force has been set up for its implementation.

At secondary and tertiary prevention level:

Since January 2007, a routine service for HbA1C testing is available at the central laboratory for all diabetic patients. This enables a better monitoring mechanism for assessing the control of diabetes in patients attending our health institutions

Podiatry services have been started at VH and will be scaled up to other health regions.

Digital retinal screening programmes for screening diabetic patients with eye complications with a digital retinal camera are in place at three regional hospitals, viz., Sir Seewoosagur Ramgoolam National Hospital, Victoria Hospital and Jawaharlall Nehru Hospital. This service will be scaled up to cover other health regions.

In Mauritius 60 per cent of patients on dialysis are diabetic. The government offers free dialysis to about 1,000 patients, which costs around Rs 230,000 per patient per year.

Ophthalmic services are offered at the Subramanien Bharati Eye Hospital. Diabetes remains one of the major causes of blindness in Mauritius. About 1,200 patients undergo laser surgery each year, mainly for diabetic retinopathy. Another 250 are referred for treatment abroad, mainly to India for vitreo retinal surgery, the costs of which are partially borne by the Ministry, amounting to Rs 50,000 per patient.

A comprehensive Service is being provided for children with diabetes type I. Paediatric diabetic management is available in all regional hospitals which can also deal with emergency conditions like diabetic ketoacidosis. Both patients and parents are provided with diabetes education. The aim is to achieve excellent control of blood sugar to avoid or to retard progression to complications. An estimated amount of Rs 55 million is spent on the purchase of insulin alone. The Government is also offering glucose meters and strips to all type I diabetics, and will soon be providing the latest insulin to these patients.

Not forgetting the role of alternative medicine, the Ministry of Health and Quality of Life also supports the Ayurvedic method. In 2004, Ayurvedic medicine was reintroduced with the opening of two clinics in the mediclinics at L'Escalier and Belvedere. Two more clinics have been started in the SSR National Hospital and Victoria Hospital.

A Diabetes and Vascular Health Centre has been opened at Souillac Hospital as from February 2010. This centre is set to become a centre of excellence for diabetes care.

International conference on diabetes and associated diseases

A three day conference on diabetes and associated diseases was held in Mauritius from 12 to 14 November 2009. The conference brought together a number of leading experts in the field of health and diabetes, as well as those outside the health sector to discuss the current issues, latest developments and practical and programmatic management of diabetes and associated diseases.

- The conference was structured around central themes namely:
- Primary and secondary prevention strategies and their implementation.
- Developing effective systems for the integrated management of diabetes and related NCDs in primary care.
- A multidisciplinary approach to improving outcomes in diabetes.
- Surveillance and management of diabetes and associated/related diseases:
 - the management of diabetic neuropathy;
 - management of diabetic foot ulcers;
 - common problems in the management of renal disease;
 - lifestyle management of diabetes;
 - diabetes and pregnancy.

The proceedings of the last day concluded with the final presentation which highlighted the previous declarations viz. United Nations Declaration, Algiers Declaration and culminated with 'the Mauritius Call for Action'.

The call for action (Mauritius Declaration) made the following recommendations:

- To increase sensitisation and advocacy in the fight against diabetes and other NCDs, using reliable epidemiological data for policymakers and the general public.
- To improve human and financial capacities to better deal with diabetes and other NCDs.
- To ensure the availability of diagnostic tools and medicine for people with diabetes (including life saving insulin) and other NCDs.
- To power partnership with relevant stakeholders including privatepublic partnership to support national diabetes and other NCD programmes.
- To prepare and implement integrated prevention and control policies and plans within national health systems.
- To encourage partnership and integrational services with existing communicable disease programmes in order that there is equitable access to resources.
- To mobilise internal and external resource and allocate them regularly to a sure co-ordination of the interventions of the different contributors in different sectors (government, non-governmental and private).
- To promote healthy food and healthy eating habits and setup regulatory framework for limiting access to unhealthy foods/ingredients; and, to set up a mechanism for prohibiting advertising of alcohol and tobacco.
- > To promote healthy lifestyle amongst the youth.
- To promote primary, secondary and tertiary prevention interventions in favour of diabetes and other NCDs.
- Integration into primary healthcare in order to improve access to relevant healthy care.
- To utilise maternal and child health services for early intervention in the life course approach.

- To adopt multi sectorial interventions that facilitate the adoption of healthy lifestyle behaviours for prevention.
- To initiate and strengthen research on diabetes
- To ensure that health indicators related to diabetes and other NCDs and their risk factors are included within the national surveillance systems and they are included in the Millennium Development Goals (MDGs).
- To ensure that current global fund includes diabetes and other NCDs.

There was also a call to WHO and other international partners to:

- Provide technical co-operation to countries to generate evidencebased data and develop public policies that promote health.
- Develop, update and disseminate standards and guidelines for the diagnosis and management of diabetes and its complications and other NCDs.
- Encourage international partnership with relevant stakeholders to initiate national diabetes and other NCDs programmes.
- Promote and support research in diabetes and its complications and other NCDs.
- Monitor the progress of the implementation of global NCD action plan in the context of Regional Health Observatory (RHO).
- Promote and encourage multi-sectorial interventions to improve the environment so as to enable or facilitate the adoption of health behaviours.

Cancer

Mauritius has formulated its National Cancer Control Programme Action Plan for 2009-2012 in line with WHO recommendations to set up national strategies for the prevention, early detection, treatment and palliative care of cancer and cancer health research.

Some 1,500 new cases of cancers are registered each year in Mauritius with the National Cancer Registry which is a pathologybased registry functional since 1989. 2,286 male and 3,280 female cases have been recorded over the four year period 2005-2008. Cancer accounted for 11.9 per cent of all deaths in Mauritius in 2008. Within the decade 1992-2002, the total number of new cases has increased by 45 per cent and 37 per cent in men and women respectively.

The focus of the NCCP will be on prevention issues, targeting tobacco and alcohol, with better national cancer awareness programmes, early detection programmes for breast, cervical and colon cancers, more effective treatment for curable cancers, investment in manpower and modern equipment, and promotion of patient-centred community-based palliative care facilities.

The Radiotherapy unit in Mauritius has one linear accelerator in addition to one cobalt and one brachytherapy machine. The cancer drug formulary includes 45 items, including those on the WHO list of essential cancer chemotherapy medications. All these cancer treatment are available in the public sector, free of any user cost.

The implementation of a national breast cancer screening programme is underway. Approximately, 88,000 women have been screened. A new Children Cancer Unit was set up in May 2009 to treat acute leukaemia cases. Palliative care is essentially hospital-based at present and new community based services will be setup. With the introduction of the Clinical Trial Bill, Mauritius will soon be able to embark on clinical trials in cancer treatment and research.







Incidence of tuberculosis (per 100,000 people) 100,000 10,000

HIV deaths in adults and children





600 KH2 880 HH5 H20 H51 HEE 607 2000 EDIT 2005 2007



2008

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Reported malaria deaths





HIV deaths in adults and children









(perioo,ooo people)







Incidence of tuberculosis HIV deaths in adults and children (per 100,000 people) 150 200,000 do 190,000 250 200 100,000 1503 10.0 50,000 510 2008 1000 1090 2222 30.05 2008 1995

1990





Incidence of tuberculosis (per 100,000 people)





HIV deaths in adults and children



Papua New Guinea

Joined Commonwealth	Population	Area (km²)	GNI (USa)
1975	6,458,000 (2008)	462,840	5.4bn (2007)



Child mortality rates (per 1,000 live births) 100 80 60 60 20 0 1000 2003 Under-s mortality rate Infant mortality rate (under I)



Maternal mortality rates

Reported malaria deaths



Incidence of tuberculosis (per 100,000 people)







Reported malaria deaths







St I	Kitts	and	Nevis
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St Vincent and the Grenadines

Joined Commonwealth	Population	Area (km)	GNII (US\$)
1979	121,000 (2008)	389	507m (2007)





Incidence of tuberculosis (per 100,000 people)





Samoa

joined Commonwealth	Population	Area (km)	GNI (USS)
1970	189,000 (2008)	2,831	454m in (2007)







Maternal mortality rates













Reported malaria deaths



Incidence of tuberculosis (per 100,000 people)

HIV deaths in adults and children









HIV deaths in adults and children



Under-s mortality rate
Infant mortality rate (under 1)



Reported malaria deaths













Reported malaria deaths



Incidence of tuberculosis (per 100,000 people)

HIV deaths in adults and children



GNI (USS)

30.8bn (2007)



2005

Sri Lanka



Maternal mortality rates 750 120 -90 66 20

1000

Reported malaria deaths



Incidence of tuberculosis (per 100,000 people)





15-

120

190

60

10



Reported malaria deaths



Incidence of tuberculosis (per 100,000 people)

1995

2005

HIV deaths in adults and children





United Republic of Tanzania

1961

Joined Commonwealth Population Area (km) GNI (USS) 41,464,000 (2008) 16.3bn (2007) 945,090







1000

Reported malaria deaths





HIV deaths in adults and children







(per 100,000 people)



1000

HIV deaths in adults and children

2005



1990

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2005

1050

HIV deaths in adults and children





Vanuatu





Reported malaria deaths





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Reported malaria deaths

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Appendix

List of Supporters and Acknowledgements

Supporters of Commonwealth Health

Supporters of Commonwealth Health are organisations that are able to engage with the Commonwealth Secretariat on a number of health-related occasions throughout the year.

The Commonwealth Secretariat acknowledges the contribution of the Supporters of Commonwealth Health to its work on health.

Supporters of Commonwealth Health 2010

- Lilly MDR-TB Partnership www.lillymdr-tb.com
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