INVESTING IN MATERNAL, NEWBORN AND CHILD HEALTH

THE CASE FOR ASIA AND THE PACIFIC

Key messages

Halfway to the MDG target date, it is clear that the "business as usual" approach to the Millennium Development Goals (MDGs) 4 and 5 - to reduce child and maternal mortality and achieve universal access to reproductive health - is failing too many people in too many places in Asia and the Pacific. The lives of women and children are demonstrably affected by the quantity and quality of spending on maternal, newborn and child health – and governments have the power to fix the problem. This investment case shows the cost and impact of increased investment in proven and cost-effective reproductive, maternal, newborn and child health interventions. It is an investment in social justice, social stability and economic productivity. The current global financial crisis only brings these aforementioned challenges of financing and inequity in maternal, newborn and child health into even sharper focus.

Unless significant additional resources are mobilized for maternal, newborn and child health services in Asia and the Pacific, MDGs 4 and 5 will not be achieved. The analysis in this document has shown that at least an additional US$5 billion annually by 2010 – increasing to an additional US$10 billion by 2015 – is needed in the region. This additional investment of less than US$3 per person per year can make a significant contribution towards achieving MDGs 4 and 5. To achieve MDGs 4 and 5, larger and longer-term investment is needed. The case made in this document strongly supports increased – and better allocated – investment in maternal, newborn and child health in Asia and the Pacific.

The partners of the "Maternal, Newborn and Child Health Network for Asia and the Pacific" that prepared this document are already working with countries in this region to make their expenditure on maternal, newborn and child health larger, more efficient, more equitable and more sustainable. That process of collaboration will continue through the coming years, providing many specific country-level opportunities for governments and their development partners.

Six factors make this investment case different from previous efforts and more likely to achieve real and sustainable results:

> It is grounded in the very latest and strongest **evidence**.

> It identifies "**best buys**" that take account of local problems, priorities and costs.

> It uses the power of money to change **incentives** and behaviour.

> It works through, and therefore inevitably strengthens, **national health systems**.

> It integrates action to help both **mothers and children**.

> It involves **partnering** of the analytical, technical, and financial resources of governments and their development partners.

Investing in Maternal, Newborn and Child Health - The Case for Asia and the Pacific

Every year 9.2 million children in the world die before their fifth birthday, as do more than half a million pregnant women.[1] The situation is particularly acute in Asia and the Pacific, whose share of the global total is nearly 41% of the under-fives, more than 44% of the mothers and 56% of the newborn babies.[2-3] Most of these deaths could be prevented through proven, cost-effective interventions. Furthermore, of all the people in the world who require family planning services, but do not have access to them, 55% live in Asia and the Pacific.[4]

The scale of this tragedy means that the global Millennium Development Goals (MDGs) 4 and 5 – on reducing child and maternal mortality and achieving universal access to reproductive health – simply cannot be achieved unless action is taken in Asia and the Pacific.[5]

This document presents a case for investment in maternal, newborn and child health (MNCH) that combines the best available science and economics, based on evidence about what works in practice. The investment case has been developed by analysts from 12 global, multilateral and bilateral organisations and foundations working in the field. The cost estimates will be continually updated as new data becomes available.

The current global financial crisis only brings these aforementioned challenges of financing and inequity in maternal, newborn and child health into even sharper focus. For example, governments are likely to face reduced overall revenues as a result of slower growth and taxation receipts, and higher public expenditure as prices of, for example, imported pharmaceuticals increase and as people seek government-funded health care instead of more expensive private care. Challenges also arise at the household and individual level: high out-of-pocket spending on essential health care will further impoverish people who are now unemployed. Fortunately, these adverse effects are not necessarily unavoidable: policies matter, and governments and their development partners can respond in ways that safeguard health outcomes, as well as avoiding impoverishment and sustaining investment in productive activities.

Why invest in maternal, newborn and child health?

There are five reasons why governments from both developed and developing countries should invest more in the health of women, mothers and their children.

1. Women's and children's health is valuable in itself

This obvious truth is one of the basic principles behind development work, and is recognized in several United Nations Conventions.[6] Two of the eight MDGs – MDGs 4 and 5 – have the health of children and mothers as their focus. These complement and interact with the other MDGs, which deal with nutrition, water and sanitation, tuberculosis, malaria and HIV and AIDS, and the empowerment of women. As with the other MDGs, 4 and 5 are interdependent: saving a pregnant woman's life often means saving her newborn baby. Saving a mother's life helps her other children too, because without her they would be between three and ten times more likely to die.

2. There are proven and affordable ways of saving the lives of women and children

Many women and children in low-income countries could be saved by tried and trusted measures. These interventions could prevent about two-thirds of child deaths, half to two-thirds of newborn deaths and many maternal deaths.[7-12] The number of lives that could be saved globally each year is huge: at least six million children, including two million babies, and many of the half a million mothers who currently die. Ensuring that every pregnancy is wanted brings cost savings and concrete benefits to maternal and child health, poverty reduction, and gender equality. Spacing between births increases newborn and child survival.

3. Investing in maternal, newborn and child health makes economic sense

Improved maternal, newborn and child health saves money in many ways and benefits individuals, families, communities and society.[13] For instance, households with healthier and better nourished mothers and children spend less on healthcare. Reducing unexpectedly large and catastrophic out-of-pocket expenses for women and children is particularly important for poor people, because it means they can hold on to their savings and are less likely to need to sell their possessions – both key issues in Asia and the Pacific.

When governments and their development partners spend money on preventing illness and promoting good health, they help to reduce the cost of curing people when they get sick – by up to US$700 million globally per year for child survival alone.[14] The World Health Organization estimates that improving water, sanitation and hygiene could save US$7 billion in healthcare costs per year.[15] In many places, every dollar spent on family planning saves four or more dollars that would otherwise have been spent to address complications of unplanned pregnancies (in later years the savings are even higher).[16]

When people are healthy and well nourished, they tend to spend less on healthcare. However, the benefits of good health transcend costs; they also generate huge economic returns, because healthy people can work more productively and apply the skills they have learned through training.[17] This helps them improve their own lives and contribute positively to the wider economy. Conversely, poor health can seriously hinder economic growth. For example, USAID has estimated that maternal and newborn mortality leads to US$15 billion in lost potential productivity globally every year.[18]

There are also long-term benefits, because investment in the health of children leads to an increase in the proportion of the population that survives to working age – contributing to economic growth. 30-50% of Asia's economic growth between 1965 and 1990 can be attributed to favourable demographic and health changes, which were largely a result of reductions in infant and child mortality and subsequently in fertility rates, and also improvements in reproductive health.[19]

4. Investing in maternal, newborn and child health has political benefits, including social stability and human security

Healthy mothers and children can contribute to peace and social stability as much as they benefit from them. The Minister of Health of Nepal observed in June 2008 that visible improvement in maternal, newborn and child health directly strengthens the peace process – perhaps because it indicates how well a society treats its most vulnerable members. This reflects the finding of a large and well respected study conducted in 2000, the State Failure Task Force Report, that infant mortality rates were one of the three indicators that is most directly correlated with state crisis and conflict.[20]

5. Investing in maternal, newborn and child health makes the health system work better

In fact, investment in maternal, newborn and child health along the continuum of care from pre-pregnancy to childhood and beyond will strengthen a nation's health system, whether public or private. Reproductive, maternal, newborn and child health access and outcome indicators are sensitive measures of the health system. If a country can provide 24-hour emergency care of good quality to women experiencing problems during delivery, it is a sign that its health system has the necessary physical and human resources in place.

Why Asia and the Pacific?

1. Asia-Pacific has a high share of the world's maternal and child suffering

This region has the largest share of the world's population and spans a vast area, from Pakistan to Papua New Guinea to the Pacific Islands. Its countries range from the populous – India and Pakistan – to those with relatively small populations, such as Cambodia and Lao People's Democratic Republic.

Despite much of the region's rapid economic growth, many countries still have disturbingly high rates of maternal and child mortality (see Table 1). An alarming 15% of the world's newborn deaths occur in just three states of India: Bihar, Madhya Pradesh and Uttar Pradesh.[21] Of the 450 newborn babies who die every hour around the world, over half of them are in just six Asian countries – Afghanistan, Bangladesh, China, India, Indonesia and Pakistan.[22]

These acute problems mean that 14 of 43 countries in Asia and the Pacific are currently unlikely to achieve MDG 4 on child health. While it is difficult to assess trends in maternal mortality, 13 countries had a "high" or "very high" maternal mortality rate in 2006. And 17 countries are not making enough progress to achieve MDG 5b on universal access to reproductive health as measured by increasing contraceptive prevalence to ensure there is no unmet need for family planning. The lack of adequate family planning is critical, because unplanned pregnancies and inadequate birth spacing often cause complications, suffering and death. Here again, Asia and the Pacific is a hotspot. While the rate of unmet need for family planning is highest in Sub-Saharan Africa, the large population of Asia and the Pacific means that of all the people in the world who require family planning services, but do not have effective access to them, 55% live in Asia and the Pacific.

Table 1: Maternal and child mortality in Asia-Pacific and other regions

	Mothers		Children under five	
Region	Mortality*	Share of global mortality	Mortality*	Share of global mortality
Asia and the Pacific	325	44%	59	41%
Africa	900	52%	157	49%
The Americas	99	3%	21	7%
Europe	27	1%	16	3%

Sources: please see the reference section at the end of the document. [23-25]
* maternal mortality is per 100,000 live births; under-five mortality is per 1,000 live births. Data is from 2005-2006.

Asia and the Pacific is also performing poorly in terms of providing children with the food and nutrition they need.[26] Close to 40% of the world's underweight children live in India, and about 60% of stunted children live in Asia and the Pacific. Just under half of all children are underweight in India and Bangladesh. The situation is also bad in South-East Asia. For example, more than one-quarter of children in the Philippines are stunted or underweight. The region accounts for two-thirds of all babies born with low birth weights.

Finally, the region is still the centre of gravity for world poverty, with well over 1.5 billion people living on less than US$2 a day. Poor maternal, newborn and child health is both a cause and a consequence of this poverty.

2. What causes maternal ill-health and child mortality?

Asia and the Pacific is lagging behind in several areas that are known to give mothers and children a better chance of survival. For instance, women need skilled attendants during childbirth, but only 41% of expectant mothers in South Asia have one – one of the lowest rates in the world. Furthermore, access to emergency obstetric care is often inadequate. Poor nutrition is also a chronic problem – recent rises in the real cost of food in the region are likely to make things worse, especially among the poor. And of the 2.5 billion people in the world without adequate sanitation facilities, 1.8 billion live in Asia and the Pacific. In addition, coverage for interventions that matter most to reduce pneumonia and diarrhoea deaths is stalling or reversing in some countries in Asia and the Pacific, whereas progress in many other countries is insufficient to reach mortality declines required to achieve MDG4.[27]

South Asia is the part of Asia and the Pacific with the greatest unmet need for family planning and the largest rate of adolescent births – two of the indicators for the MDG 5 reproductive health target. Unmet need for family planning exceeds 10% in South-East Asia and is 15% in South Asia. Adolescent birth rates remain highest where access to family planning is limited, which has a negative impact on achievement of the MDGs on maternal mortality, education, poverty and women's empowerment. The adolescent birth rate is 53.7 (annual number of births per 1,000 women aged 15 to 19 years) in South Asia and 40.4 in South-East Asia.

Why is spending critical?

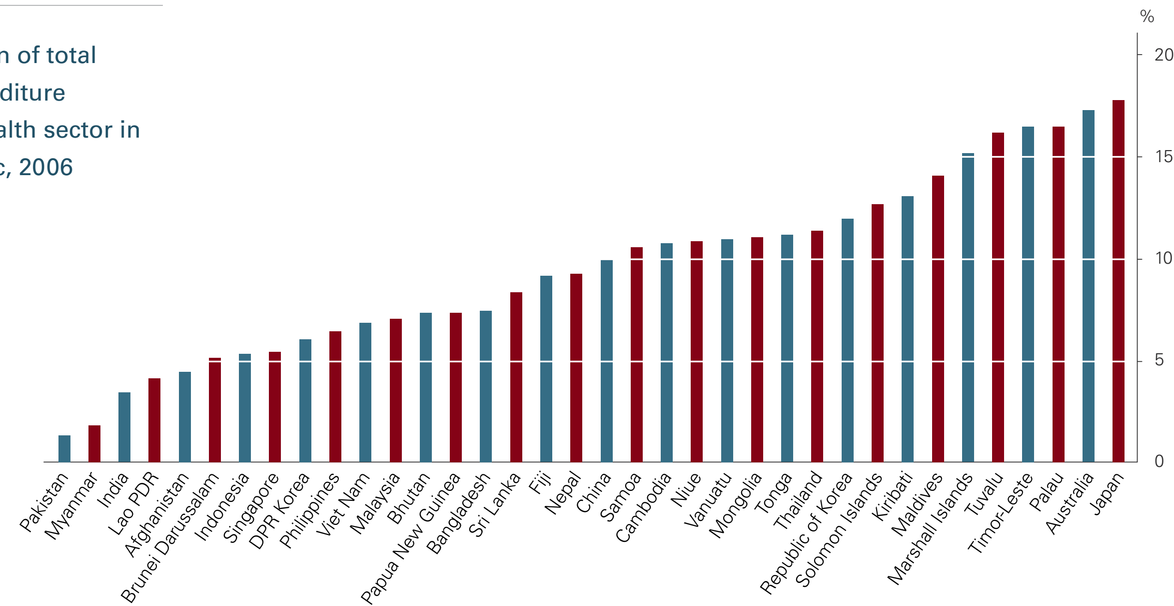
Spending in the region – on maternal, newborn and child health and health in general – must not only be increased but must also be improved. It currently suffers from five problems that governments and their development partners can fix.

1. Increase spending

Each year, South Asia (Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan) spends just US$26 per capita per year on health – from both domestic public and private sources and from international development assistance.[28] While this is the lowest figure among world regions, some countries in the region spend much less: Pakistan spends US$15 and Bangladesh just US$12.

Figures for total spending on health mask important distinctions at the country level. For example, in several countries in Asia and the Pacific, government spending on health as a proportion of total government spending is very low. As illustrated in Figure 1, about half of the governments in Asia and the Pacific spend less than 10% of their total expenditure on health.[29]

Figure 1: Proportion of total government expenditure allocated to the health sector in Asia and the Pacific, 2006



Source: WHO (2008) World Health Statistics

2. Increase efficiency

Several cost-effective interventions for improving the health of mothers and their children have been identified by The Lancet series on Maternal, Neonatal and Child Survival, the same journal's series on Sexual and Reproductive Health and Maternal and Child Undernutrition, and WHO/UNICEF's Regional Child Survival Strategy for Asia.

Despite this evidence, scarce resources are often not allocated where they will have the biggest impact. For example, acute respiratory infection – the leading cause of child mortality – attracts less than 3% of donor funding globally, even though it accounts for 25% of the burden of disease.[30] Nutrition programs also remain chronically under-funded, despite evidence from the 2008 round of the Copenhagen Consensus that five of the ten most cost-effective interventions for helping the poor are related to nutrition. Donor funding for family planning has decreased, despite its long-standing recognition as a cost-effective program.

Inefficient spending can also occur when scarce resources are directed to relatively expensive, highly specialized services rather than to primary or secondary care. Not only do the latter cost less, they are also potentially more equitable, because they are generally more readily available to poor people. Inefficiencies may also result when the wrong balance is struck between spending on curative care and measures for health promotion and the prevention of poor health.

Box 1 shows that it is possible for low-income countries such as Sri Lanka to achieve impressive improvements in maternal, newborn, and child health by spending their money efficiently and cost-effectively.

Box 1: Dramatic reductions of mortality achieved in low-resource settings: evidence from Sri Lanka

In 1950, the maternal mortality ratio (MMR) in Sri Lanka was very high, at more than 500 deaths per 100,000 live births. In the same period, gross national product (GNP) per capita was only US$270. Despite being constrained by its limited resources, Sri Lanka managed to reduce the MMR to below 100 by the mid-1970s – far lower than many countries with similar or higher income levels. Today Sri Lanka's MMR is about 50.

A recent evaluation of Sri Lanka's experience identified several critical success factors headed by political will to invest in maternal health. Services were free to those who could not pay, and the decision was taken to expand access to underserved areas, with a focus on the most appropriate interventions. Emergency obstetric care was developed. More skilled birth attendants were made available to help mothers in labour. This was achieved by training a large number of midwives and by promoting the service and improving its quality. Pregnant women were encouraged to consider they had a right to a skilled birth attendant.

Progressive and sequenced investment was an important part of the program's success. This focused initially on recruiting more midwives and strengthening their capacity. Investments were then made in the primary health care system, and finally in hospitals.

Sources: [31]

3. Increase equity

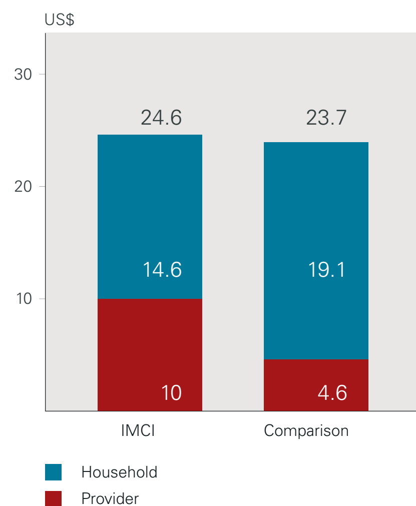
Poor people often have to pay for their healthcare "out of pocket", which makes them poorer and means they sometimes cannot afford essential care. Some 78 million people in Asia and the Pacific end up with less than US$1 a day after they have paid for healthcare.[32] Worse, inequity in health access and outcomes is rising – with adverse social and political consequences.

For example, half the families in Bangladesh do not have enough cash to pay for a delivery attended by a skilled health worker, and nearly three-quarters do not have enough for a Caesarean section.[33] Bangladeshi women who are poor or uneducated are far less likely than wealthier, highly educated women to use maternal healthcare services. For example, women whose household assets place them in the wealthiest 20% of the population are more likely than those in the poorest 20% to have used skilled birth attendants (by a factor of almost 3 to 1), had a Caesarean delivery (2.6 to 1) or received postnatal care (1.5 to 1) for their most recent birth. In Nepal early this decade, the percentage of women using family planning to space or limit their births reached only 39% in the poorest 20% of the population. However, use of family planning exceeded 70% in the wealthiest 20%.[34]

Out-of-pocket spending on health care by households and individuals generally increases inequity, and government spending on health often benefits the rich more than the poor. A recent study analysing who benefited from government subsidies in 11 Asian territories (eight countries, two provinces in China, and Hong Kong Special Administrative Region) found that the rich captured more of the subsidies than the poor in most of the territories.[35] For example, in Viet Nam the poorest 20% captured only about 10% of government subsidies to hospital care. In Indonesia, the figure was even lower at 4% for inpatient care and 7% for outpatient care.

Box 2 summarizes the results of a recent evaluation of household spending on health care for children under five in Bangladesh. The results demonstrate that the implementation of an effective strategy such as the Integrated Management of Childhood Illness (IMCI) can significantly increase the equity of health care in poor countries.

Figure 2: Cost per child by source of payment in Bangladesh, 2007 (US$)



Box 2: Where do households spend their money for health care for children less than five years of age?

The Multi-Country Evaluation of the Integrated Management of Childhood Illness (IMCI) found that household out-of-pocket expenditure per child in Bangladesh was US$ 4.50 lower in areas with IMCI compared to areas without IMCI (see Figure 2 below). Households paid twice as much per child out of their own pockets in areas without IMCI. On the other hand, the costs per child to service providers almost doubled in IMCI areas.

This apparent shift in source of funding for child health care in IMCI and comparison areas has important implications for programmatic and budgeting decisions. Clearly, providing services for under-fives through the IMCI model was beneficial to households by reducing their financial burden of seeking and obtaining care. Further work should explore if the poorest households were those who benefited the most. Equally important, the intervention in the study areas was associated with an additional cost to the provider of US$ 5.5 per child per year - more than doubling these costs.

Source: [36]

4. Incentives matter

Incentives can be a powerful way of changing behaviour and improving outcomes. However, current spending patterns neglect this power, because payments – both to public and private institutions and to people – are not linked clearly enough to performance or good outcomes. This problem is made worse by weak overall accountability. A World Bank study found that the absentee rate for doctors in Bangladesh at larger clinics was 40%, while at smaller sub-centres with a single doctor it was as high as 74%.[37]

Where additional financing is available, consideration should be given to the use of incentives to influence the behaviour of both health care providers and users. Box 3 presents examples of countries where this has happened. The long term-sustainability of this approach is still to be confirmed, but such incentives are likely to increase access to services.

Box 3: Using the power of financing to influence incentives and improve access to maternal health services

In India, the State Government of Gujarat launched the Chiranjeevi Scheme in 2005, which aims to improve access to institutional delivery among families living below the poverty line. This is accomplished through a voucher scheme that provides free treatment during delivery including all medicines. The scheme also covers the mother's out-of-pocket travel costs to reach the health care facility, and offers financial support to cover loss of wages for the person who accompanies her. Private medical practitioners (mainly gynaecologists) have been enrolled in the scheme to provide maternal health services. The providers are reimbursed at a fixed rate for the deliveries they carry out.

Recent evaluations of the scheme found that in 2007-2008 it led to a doubling of the number of deliveries taking place in health care facilities in the State. It has been estimated that the program has helped to avert close to 1,000 maternal deaths and close to 1,000 newborn deaths. It has also been successful in reducing financial barriers. People using the scheme spent on average 727 Rupees (about US$14.50) on a delivery, compared to 1,658 Rupees (about US$ 33.50) previously. Almost all (96%) of women using the scheme had used antenatal care services before delivery (the average number of visits was 2.84). Only one delivery among beneficiaries of the scheme was conducted at home, whereas 21% of non-beneficiaries delivered at home. Beneficiaries of the scheme were also more likely to be attended by a skilled provider than non-beneficiaries. In recognition of its success, the Chiranjeevi Scheme received the Asian Innovation Award in 2006 from the Wall Street Journal. The program is being expanded to other areas in Gujarat and is also being replicated in other states of India.

Source: [38-39]

5. Integration matters

Too often, key programs that build health systems and determine reproductive, maternal, newborn, and child health outcomes are not fully implemented or their funding is curtailed.[40-41] The reasons are often a fall in support from donors and inconsistent domestic political and financial support.[42] Furthermore, programs and interventions are often not integrated according to the continuum of care approach. This promotes access to care in line with levels of care (families and communities, outreach services, and clinical services) and at critical times for maternal, newborn, and child health (including adolescence, pre-pregnancy, pregnancy, childbirth, the postnatal period, and childhood).

There is often a lack of "one country" health plans and budgets that reflect all levels of care for maternal, newborn, and child health along the continuum of care. This often results in fragmented and uncoordinated financing by donors and governments, which prevents a holistic and integrated approach to implementation and financing of maternal, newborn, and child health interventions.

The five challenges listed above will not resolve themselves. Purposeful, stepped-up intervention is needed. This requires increased and more focused investment, because money is the common thread running through these five challenges. It is one of the things that governments can influence.

What to invest in and how much will it cost?

Governments must decide, with the help of their development partners, which combination of interventions will be best for their countries, because each will have its own unique set of needs. However, based on recent analysis*, "The Maternal, Newborn and Child Health Network for Asia and the Pacific" can recommend a set of interventions and services from which countries should select, all of which have been proven to be "best buys" for achieving MDGs 4 and 5.[43-44] These evidence-based interventions provide a solid justification for extra investment, because they work well and are affordable and cost-effective.

The precise composition of the "best buys" will vary from country to country, and will change over time, depending on health burdens, costs, capacities and where and when epidemics strike. Fifteen developing countries in Asia and the Pacific already have the necessary health and cost data to identify their own "best buys" (most have had a recent Demographic and Health Survey or Multiple Indicator Cluster Survey). The fifteen countries are Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Thailand, Timor-Leste and Viet Nam.

Even in a region as varied as this, we already have an idea of which interventions will have the highest likelihood of achieving high impact, and some of these are covered below. For example, some countries in this region have relatively high maternal and child mortality, high malnutrition, limited coverage of essential services, and inadequate per capita health expenditure. Examples include Cambodia, certain states of India, Lao People's Democratic Republic, Pakistan and Timor-Leste. The analysis shows that very high and surprisingly fast returns on increased investment are possible, but that longer-term investments are also needed.

For other countries in the region, inequity is more of a problem than inadequacy of health spending. Countries such as China, the Philippines and Viet Nam all have relatively good national indicators for maternal, newborn and child health. However, behind the national figures, the key priority is to broaden access. For such countries, the "best buys" might be found in areas such as risk pooling, social health insurance, innovative performance contracting, and conditional cash transfers to protect the poor.

1. How much for the core package?

Our analysis has estimated the additional costs in 2009-2015 of increasing access to the "best buys" for mothers and children in 15 countries that account for most of the maternal and child mortality and morbidity in Asia and the Pacific (Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Thailand, Timor-Leste and Viet Nam). We also identified the additional resources required to pay for costs such as drugs and the additional time of health workers needed to scale up provision of core maternal, newborn and child health interventions (see "core interventions" in Table 2).

While costs vary depending on the country-specific context, the results show that the average additional cost for the six countries of South Asia – Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan – amounts to US$1.21 for child health interventions per capita per year in 2009-2015 and US$1.76 for maternal and newborn health interventions, resulting in a total of US$2.97 per capita per year. The average additional amount for the nine countries of East Asia and the Pacific – Cambodia, China, Indonesia, Lao People's Democratic Republic, Myanmar, Papua New Guinea, the Philippines, Timor-Leste, and Viet Nam – was even lower: US$0.61 and US$0.83 respectively, resulting in a total of US$1.44 per capita per year. This means that the additional cost of the "core package" for maternal, newborn and child health is less than US$3 in both South Asia and East Asia and the Pacific. These figures equate to an overall additional cost of around US$5.1 billion in 2010 and US$10.4 billion in 2015 in the 15 Asia-Pacific countries, as shown in Figure 3.

2. How much for additional interventions to achieve MDGs 4 and 5?

The interventions – and costs – of the "core package" compare very favourably with other health interventions, and are clearly bargains, particularly in areas where need is most acute. However, this amount of investment will not be enough to achieve MDGs 4 and 5. While countries can achieve short- and medium-term gains with relative ease, longer-term investments are essential and need to be made now.

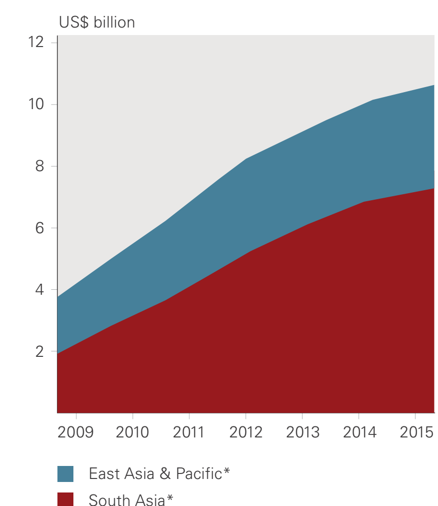
* This analysis includes WHO's World Health Report 2005 and *The Lancet* series on maternal, newborn and child survival, reproductive health, and maternal and child undernutrition, as well as the Regional Child Survival Strategy by WHO and UNICEF.

Table 2: What interventions are included and how much do they cost?

Category	Examples of interventions	Examples of strategies to support delivery of interventions	Additional cost per capita per year (US$)
Core package	Antenatal care, skilled birth attendance, basic family planning, essential newborn care, promotion of exclusive breastfeeding, immunization, vitamin A supplementation, oral rehydration, case management of childhood diseases (for example, pneumonia, diarrhea, malaria), hand-washing promotion, insecticide-treated bednets	Conditional cash transfers, provider incentives for home visits, improved training and supervision	Less than 3
Expanded package	In addition to core interventions: Complementary and therapeutic feeding, zinc supplementation, new vaccines, family planning	Performance incentives and health systems investments to strengthen human resources and infrastructure at primary health care level	4-6
Comprehensive package	In addition to core and expanded interventions: emergency obstetric and neonatal care, anti-retrovirals for HIV/AIDS, water and sanitation	Performance incentives and health systems investments to strengthen human resources and infrastructure at referral-level care	8-12

Source: estimates based on ongoing inter-agency analysis by individuals in the Maternal, Newborn and Child Health Network for Asia and the Pacific for the development of country-specific investment cases. Strategies and numbers vary depending on the country-specific context.

Figure 3: Additional investment needed to finance "core interventions"



Sources: estimates by WHO (2008) [based on 45-46]
*15 countries that account for most of the maternal and child mortality and morbidity in Asia and the Pacific. (Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Thailand, Timor-Leste and Viet Nam).

Our analysis therefore calculated the additional investment needed to achieve MDGs 4 and 5 in countries with relatively high mortality, high malnutrition, limited coverage of essential services, and inadequate per capita health expenditure. To create supply and demand conditions to make it possible to achieve 95% coverage – and achieve MDGs 4 and 5 – would cost an extra US$5 per capita per year in 2010 and US$10 per capita per year in 2015. The cost estimates will be continually updated as new data becomes available.

These longer-term investments would make a significant difference. They would pay for required strengthening of health systems, such as investing in blood banks and in facilities for emergency obstetric and neonatal care. They would finance training of obstetricians and anaesthetists in how to provide such live-saving procedures as Caesarean sections, and training of health care workers in prevention of transmission of HIV from mothers to children. The additional investments would also pay for additional interventions, such as complementary and therapeutic feeding, zinc supplementation, new vaccines ("expanded interventions" in Table 2), anti-retroviral drugs for HIV/AIDS and improvement of water quality, sanitation and hygiene ("comprehensive package" in Table 2).

An extra US$10 per capita per year is clearly a sizable investment for some countries. However, unless these resources are mobilized by governments and their development partners, MDGs 4 and 5 will not be achieved in Asia and the Pacific. Furthermore, the extra investment would achieve not only MDGs 4 and 5, but would also make a significant contribution to the achievement of other MDGs, such as MDG 1 (poverty and hunger) and MDG 6 (HIV/AIDS, malaria and other diseases). Again, clearly a best buy.

In summary, "best buys" vary from country to country. Some are technically simple, such as vitamin A supplements and insecticide-treated bed nets in areas where malaria is endemic. Others are technically simple but also require important changes in behaviour, such as promoting breastfeeding, hand-washing, improved birth spacing, and the use of oral rehydration salts during diarrhoea. Some are quick and cheap, such as micronutrients, whereas others (though still good investments and needed to achieve MDGs 4 and 5) require longer-term investment, such as training midwives and anaesthetists.

What all the "best buys" have in common is simple. They address the factors that most affect maternal, newborn and child health access and outcomes. And they require a purposeful increase in spending and an improvement in its allocation.

The investment package is strengthened by experience, and there are a great many examples of "what works" in this region. These encompass all possibilities: supply side and demand side, public and private sector (or a combination). There are examples – such as in Sri Lanka and Malaysia – of rapid and sustained falls in child and maternal mortality despite low per capita income.[47] There are even examples – ranging from Afghanistan to Cambodia – of how innovations in contracting have worked in countries suffering from conflict or emerging from it.[48]

What is new here that gives me confidence it will work?

Six factors make this investment proposal different from previous efforts and more likely to achieve real and sustainable results.

1. Evidence

It is grounded in the very latest and strongest evidence, including the recent findings and insights from The Lancet series on reproductive health; maternal, newborn and child survival; and nutrition.

2. Best buys

It goes beyond technical solutions, important as they are, and takes better account of local problems, priorities and costs – allowing spending to be targeted where it can do most good.

3. Incentives

It uses the power of money to change incentives and behaviour. One example of this is conditional cash transfers – money paid to poor families for actions such as taking their children for check-ups. Another is performance-based financing of health services.

4. National systems

It works through, and therefore inevitably strengthens, national health systems. This is because maternal, newborn and child health is such an integral and central part of any health system, whether public or private.

5. Children and mothers

It integrates action to help mothers and children, whereas previous strategies tended to address them separately. This produces a programme of concerted action from pre-pregnancy to infancy and beyond.

6. Partnership

It involves partnership which, for the first time, brings together the analytical, technical, and financial resources of the UN family of organizations (UNFPA, UNICEF and WHO), the World Bank, the Asian Development Bank, several key bilateral development partners (AusAID, CIDA, DFID, JICA and USAID), the Bill and Melinda Gates Foundation, the Partnership for Maternal, Newborn and Child Health, civil society and the private, for-profit sector. Individuals from these organizations meet informally as the "Maternal, Newborn and Child Health Network for Asia and the Pacific".

What are the next steps?

Halfway to the MDG target date, it is clear that the "business as usual" approach to MDGs 4 and 5 is failing too many people in too many places in Asia and the Pacific. The lives of women and children are demonstrably affected by the quantity and quality of spending on maternal, newborn and child health – and governments have the power to fix the problem. By significantly increasing and targeting resources to the under-funded challenges of maternal, newborn and child health, governments and their development partners can save lives, because the technical solutions are already proven and available. This is an affordable, cost-effective investment in the lives and productivity of women and their children. It is an investment in social justice, social stability and economic productivity. The current global financial crisis only brings these aforementioned challenges of financing and inequity in maternal, newborn and child health into even sharper focus.

Unless significant additional resources are mobilized for maternal, newborn and child health services in Asia and the Pacific, MDGs 4 and 5 will not be achieved. The analysis in this document has shown that the region needs at least an additional US$5 billion annually by 2010 – increasing to an additional US$10 billion by 2015. The case made in this document strongly supports increased – and better allocated – investment in maternal, newborn and child health in Asia and the Pacific.

For it to be effective, the illustrative approach described in this document should be adapted on a country-by-country basis to address the specific needs, circumstances, challenges, constraints and bottlenecks of each country where it is applied. It should take into account the existing costs and capacities specific to that country or sub-national area. We suggest a series of steps to develop an investment case at the country level, and then link it to broader budgetary cycles and programs. These require governments to:

Step 1: Identify partners and convene an introductory meeting to clarify the purpose of the investment case. In advance of the meeting, the government should prepare a document that describes the roles and responsibilities of each partner.

Step 2: Assess the data available for the country. It is essential that countries have up-to-date and reliable data on service provision and other indicators, because the accuracy and ultimate usefulness of the investment case will depend on this data.

Step 3: Use the available data to complete a situational analysis of expenditures on maternal, newborn and child health and inequalities in provision. This should include assessments of disease burden, unmet need for family planning and other health needs, and a selection of proposed interventions with impact and cost estimates.

Step 4: Use stakeholder input to define the challenges and bottlenecks that need to be overcome. Some of the barriers to achieving improvements in health are generic. However, most are country-specific and depend upon the starting point within each country.

Step 5: Set implementation targets and estimate the impact of interventions. This process should be informed by available indicators for MDGs 4 and 5. The estimates of impact will be based upon scaling-up projections of selected interventions and/or the analysis of barriers and bottlenecks and from projections of achievements as the constraints and bottlenecks are overcome.

Step 6: Use stakeholder input to define the costs and resources needed to implement each package of interventions. Transform these costs into budget lines and estimate fiscal space requirements.

Step 7: Draft the investment case and present it to stakeholders for discussion and buy-in. Use this meeting to identify key figures in government and the donor community who can carry its concepts and results to a policy level. Assess which stakeholders can help overcome resource gaps.

The partners of the "Maternal, Newborn and Child Health Network for Asia and the Pacific" that prepared this document are already working with countries in this region to make their expenditure on maternal, newborn and child health larger, more efficient, more equitable and more sustainable. That process of collaboration will continue through the coming years, providing many specific country-level opportunities for governments and their development partners.

References

Introduction

1. Loaiza E, Wardlaw T, Salama P. 2008. Child mortality 30 years after the Alma-Ata Declaration. Lancet, 372: 874-876.
2. Hill K et al. 2007. Estimates of Maternal Mortality Worldwide Between 1990 and 2005: an Assessment of Available Data. Lancet, 370: 1311-1319.
3. UNICEF. 2008. State of the World's Children 2009. UNICEF: New York.
4. Lule E, Singh S, Chowdhury S. 2007. Fertility Regulation Behaviour and their Costs: Contraception and Unintended Pregnancies in Africa and Eastern Europe and Central Asia. World Bank: Washington DC.
5. United Nations. 2005. Millennium Development Goals. http://www.un.org/millenniumgoals/

Why invest in maternal, newborn and child health?

6. Convention on the Rights of the Child, G.A. res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), entered into force September 2, 1990.
7. Bryce J et al. 2005. Can the World Afford to Save the Lives of 6 million Children Each Year? Lancet, 365: 2193-2200.
8. Campbell O, Graham J. 2006. Strategies for Reducing Maternal Mortality: Getting on With What Works. Lancet, 368: 1284-99.
9. Cleland J et al. 2006. Family Planning: the Unfinished Agenda. Lancet, 368:1810-1827.
10. Darmstadt GL et al. 2005. Evidence-based, Cost-effective Interventions: How Many Newborn Babies Can We Save? Lancet, 365: 977-88.
11. Jones G et al. 2003. How Many Child Deaths Can We Prevent this Year? Lancet, 362: 65-71.
12. Ronsmans C, Graham WJ. 2006. Maternal Mortality: Who, When, Where, and Why. Lancet, 368: 1189–200.
13. Borghi J et al. 2006. Mobilising Financial Resources for Maternal Health. Lancet, 368: 1457-1465.
14. Lawn JE. 2005. The price tag for newborn and child survival. Presentation at Countdown to 2015: Tracking Progress in Child Survival. London, 13-14 December 2005.
15. WHO. 2008. Safer Water, Better Health: Costs, Benefits and Sustainability of Interventions to Protect and Promote Health. World Health Organization: Geneva.
16. Moreland S, Talbird S. 2006. Achieving the Millennium Development Goals: The Contribution of Fulfilling Unmet Need for Family Planning. Futures Group, POLICY Project: Washington DC.
17. Victora et al. 2008. Maternal and child undernutrition: consequences for adult health and human capital. Lancet, 371: 340-357.
18. USAID. 2001. USAID Congressional Budget Justification FY2002: program, performance and prospects – the global health pillar. United States Agency for International Development: Washington, DC.
19. Bloom DE, Williamson JG. 1998. Demographic Transitions and Economic Miracles in Emerging Asia. World Bank Economic Review, 12: 419-455.
20. Goldstone et al. 2000. State Failure Task Force Report: Phase III Findings. Science Applications International Corporation: McLean, VA.

Why Asia and the Pacific?

21. National Neonatology Forum, Ministry of Health and Family Welfare, Government of India et al. 2004. State of India's Newborn. National Neonatology Forum & Save the Children/US: New Delhi / Washington DC.
22. Lawn JE, Cousens S, Zupan J. 2005. 4 million neonatal deaths: When? Where? Why?. Lancet, 365: 891-900.
23. Bryce J et al. 2005. WHO Estimates of the Causes of Death in Children. Lancet, 365: 1147-1152.
24. UNICEF. 2007. Progress for Children: A World Fit for Children Statistical Review. UNICEF: New York.
25. WHO. 2007. Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and the World Bank. World Health Organization: Geneva.
26. Black et al. 2008. Maternal and Child Undernutrition: Global and Regional Exposures and Health Consequences. Lancet, 371: 243-260.
27. Boschi-Pinto C, Bahl R, Martines J. Limited progress in increasing coverage of newborn and child health interventions in Africa and Asia. Journal of Health, Population and Nutrition (accepted for publication).

Why is spending critical?

28. Gottret P, Schieber G. 2006. Health Financing Revisited – A Practitioner's Guide. World Bank: Washington DC.
29. WHO. 2008. World Health Statistics 2008.
30. Shiffman J. 2006. Donor Funding Priorities for Communicable Disease Control in the Developing World. Health Policy and Planning, 21: 411-420.
31. Pathmanathan I et al. 2003. Investing in Maternal Health: Learning from Malaysia and Sri Lanka. World Bank: Washington DC.
32. van Doorslaer E et al. 2006. Effect of Payments For Health Care on Poverty Estimates In 11 Countries in Asia: An Analysis of Household Survey Data. Lancet, 368: 1357-1364.
33. Anwar I et al. 2008. Inequity in Maternal Health-care services: Evidence from Home-based Skilled-birth-attendant Programmes in Bangladesh. WHO Bulletin, 86:252-259.
34. Ministry of Health [Nepal], New ERA, and ORC Macro. 2002. Nepal Demographic and Health Survey 2001. Calverton, Maryland, USA: Family Health Division, Ministry of Health; New ERA; and ORC Macro.
35. O'Donnell O et al. 2005. Who benefits from public spending on health care in Asia? EQUITAP Project: Working Paper #3.
36. WHO (2008) Multi-country Evaluation of Integrated Management of Childhood Illness, Bangladesh cost report. WHO: Geneva.
37. Nazmul C, Hammer JS. 2003. Ghost Doctors: Absenteeism in Bangladeshi Health Facilities. World Bank: Washington DC.
38. Bhat et al. 2007. Maternal Health Financing in Gujarat: Preliminary Results from a Household Survey of Beneficiaries under Chiranjeevi Scheme. Indian Institute of Management: Ahmedabad.
39. State of Gujarat. 2008. Saving mothers and children the Gujarat way. Department of Health and Family Welfare: Gujarat.
40. Borghi J et al. 2006. Mobilising Financial Resources for Maternal Health. Lancet, 368: 1457-1465.
41. WHO, USAID, UNICEF, Partnership for Maternal, Newborn and Child Health (2007) Guidelines for producing child health sub-accounts within the National Health Accounts Framework - Prepublication version. July 2007. WHO: Geneva.
42. United Nations. 2007. Report of the Secretary-General on the Flow of Financial Resources for Assisting in the Implementation of the Programme of Action of the International Conference on Population and Development. Document No. E/CN.9/2008/5. 40th session of the Commission on Population and Development, United Nations, New York, 9-13 April 2007.

What to invest in and how much will it cost?

43. WHO. 2005. World Health Report 2005 – Make every mother and child count. WHO: Geneva.
44. WHO and UNICEF. 2006. Regional Child Survival Strategy – Accelerated and Sustained Action towards MDG 4. WHO: Geneva.
45. Johns B et al. 2007. Estimated Global Resources Needed to Attain Universal Coverage of Maternal and Newborn Health Services. WHO Bulletin, 85: 256-263.
46. Stenberg K et al. 2007. A Financial Road Map to Scaling Up Essential Child Health Interventions in 75 Countries. WHO Bulletin, 85: 305-314.
47. Pathmanathan I et al. 2003. Investing in Maternal Health: Learning from Malaysia and Sri Lanka. World Bank: Washington DC.
48. Harding A, Loevinsohn B. 2005. Buying results? Contracting for health service delivery in developing countries. Lancet, 366: 676-681.

Acknowledgements

This document was prepared by the "Maternal, Newborn and Child Health Network for Asia and the Pacific". Members of the Network include individuals from the following organizations: Asian Development Bank (ADB), Australian Agency for International Development (AusAID), Bill and Melinda Gates Foundation, Canadian International Development Agency (CIDA), Japan International Cooperation Agency (JICA), UK Department for International Development (DFID), Partnership for Maternal, Newborn and Child Health (PMNCH), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), United States Agency for International Development (USAID), World Bank, World Health Organization (WHO).

This document is a result of contributions from several individuals. The work was led by an editorial team that included Ian Anderson (ADB), Steve Atwood (UNICEF), Henrik Axelson (PMNCH), Stan Bernstein (UNFPA), Flavia Bustreo (PMNCH), Andres de Francisco (PMNCH), Rudolf Knippenberg (UNICEF) and Karin Stenberg (WHO).

Extensive and insightful contributions and comments were provided by the following individuals during different stages of the development of the document: Al Bartlett (USAID), Peter Berman (World Bank), Subidita Chatterjee (PMNCH), Sadia Chowdhury (World Bank), William Fellows (UNICEF), Howard Friedman (UNFPA), Melanie Galvin (CIDA), Garimella Giridhar (UNFPA), Monir Islam (WHO), Susan Ivatts (AusAID), Naoyuki Kobayashi (JICA), Dan Kraushaar (Bill and Melinda Gates Foundation), Dini Latief (WHO), Yunguo Liu (WHO), Elizabeth Mason (WHO), Saramma Mathai (UNFPA), Somchai Peerapakorn (WHO), Razia Pendse (WHO), Peter Salama (UNICEF), Josephine Sauvarin (UNFPA), Robert Scherpbier (WHO), Francisco Songane (PMNCH), Marianna Trias (WHO), and Jim Tulloch (AusAID).

Jacqueline Toupin and Stephen Nurse-Findlay, PMNCH, coordinated the production of the document. Robert Taylor and Richard Cheeseman of Taylor-made Communications provided editorial assistance. Financial support for the editorial assistance was provided by the Norwegian Agency for Development Cooperation. Maxime Herr of MH&Cie designed the document. The document was printed by images3, Lausanne, Switzerland.

Photo credits:
Inside cover pages: © UNICEF/HQ07-1506/Anita Khemka , ©WHO/P.Balga, © UNICEF/HQ04-1203/Ami Vitale
page 3: ©WHO-206037
page 11: ©WHO/M.Kokic

© World Health Organization (providing hosting arrangements for the PMNCH) 2009

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: permissions@who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.
All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

WHO Library Cataloguing-in-Publication Data

Investing in maternal, newborn and child health: the case for Asia and the Pacific.
1.Maternal welfare - economics. 2.Infant welfare - economics. 3.Child welfare - economics. 4.Maternal health services - economics. 5.Child health services - economics. 6.Maternal mortality - prevention and control. 7.Investments. 8.Asia. 9.Pacific islands. I.World Health Organization. II.Partnership for Maternal, Newborn & Child Health.

ISBN 978 92 4 159792 0
(NLM classification: WA 310 JA1)

ADB

Australian Government
AusAID

BILL & MELINDA
GATES foundation

JICA

The Partnership
for Maternal, Newborn
& Child Health

UNFPA

unicef

USAID
FROM THE AMERICAN PEOPLE

THE WORLD BANK

World Health
Organization