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The other crisis: the economics and financing of maternal, newborn and child health in Asia



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Abstract

The Global Financial Crisis (GFC) of 2008/2009 was the largest economic slowdown since the Great Depression. It undermined the growth and development prospects of developing countries. Several recent studies estimate the impact of economic shocks on the poor and vulnerable, especially women and children. Infant and child mortality rates are still likely to continue to decline, but at lower rates than would have been the case in the absence of the GFC.

Asia faces special challenges. Despite having been the fastest growing region in the world for decades, and even before the current crisis, this region accounted for nearly 34% of global deaths of children under 5, more than 40% of maternal deaths and 60% of newborn deaths. Global development goals cannot be achieved without much faster and deeper progress in Asia.

Current health financing systems in much of Asia are not well placed to respond to the needs of women and their children, or the recent global financial and economic slowdown. Public expenditure is often already too low, and high levels of out-of-pocket health expenditure are an independent cause of inequity and impoverishment for women and their children. The GFC highlights the need for reforms that will improve health outcomes for the poor, protect the vulnerable from financial distress, improve public expenditure patterns and resource allocation decisions, and so strengthen health systems.

This paper aims to highlight the most recent assessments of how economic shocks, including the GFC, affect the poor in developing countries, especially vulnerable women and children in Asia. It concludes that conditional cash transfers, increasing taxation on tobacco and increasing the level, and quality, of public expenditure through well-designed investment programmes are particularly relevant in the context of an economic shock. That is because these initiatives simultaneously improve health outcomes for the poor and vulnerable, protect them from further financial distress, improve

public financing and/or provide a much-needed counter-cyclical stimulus at times of economic slowdown.

Global financial crisis and health, MDGs, maternal, newborn and child heath, health expenditures, Asia

KEY MESSAGES

- Current health financing systems in much of Asia were not well
 placed to respond to the needs of women and their children even
 before the recent global financial crisis and economic slowdown.
 Public expenditure is too low, and high out-of-pocket health
 expenditure is an independent cause of impoverishment for women
 and their children.
- The global financial crisis highlights the need for reforms that will improve health outcomes for the poor, protect the vulnerable from financial distress, improve public expenditure patterns and resource allocation decisions, and so strengthen health systems.
- Some interventions can *simultaneously* improve health outcomes, reduce financial distress, improve public financing and act as a counter-cyclical stimulus in times of slowdowns.

Introduction

The Global Financial Crisis (GFC) of 2008 and 2009 was the most significant global economic slowdown since the Great Depression, coming as it did on top of food and fuel price increases. While there are promising signs of recovery, especially in East Asia, it is premature to conclude that the problems are over (Asian Development Bank 2010a). Sovereign debt, especially in parts of Europe, and mixed economic news in the US continue to threaten recovery. In any event, it is inevitable that adverse economic shocks and crises will continue to arise in future, threatening the pace and pattern of development in developing countries. It is therefore timely to take stock of the impact of the GFC and see how improvements in health financing might not only improve health outcomes for the poor and vulnerable, but protect them from financial distress and promote economic recovery.

The paper is organized as follows. The first section highlights the most recent assessments of how economic shocks affect the poor in developing countries, especially vulnerable women and children. The second section explains why the situation in Asia is particularly important, suggesting there has been a longer running but less noticed crisis in maternal and child health outcomes in this region even before the GFC. The third section shows how the GFC exposes and exacerbates five specific longstanding structural problems and vulnerabilities of health financing in much of Asia, thereby undermining not only health outcomes but poverty alleviation as well. Finally, the fourth section identifies policy initiatives that are particularly relevant in the context of an economic shock such as the GFC because they simultaneously improve health outcomes for the poor and vulnerable, protect the poor from further financial distress, improve public financing and/or provide a much-needed counter-cyclical stimulus at times of economic slowdown.

The global financial crisis and its impact on poverty and health

2008 and 2009 have seen the most widespread economic slowdown since the Great Depression, adversely affecting even countries with good macroeconomic fundamentals. While commonly referred to as the 'global financial crisis', the impacts have gone well beyond the finance sector, affecting the real economy, output, trade and employment globally. For developing countries in particular, the financial crisis merged with earlier real price increases in food staples and petroleum imports to become a 'fuel, food, and finance' crisis and therefore, potentially at least, a 'development crisis' (World Bank 2009a). Governments became increasingly concerned that achievement of the Millennium Development Goals (MDGs), the most widely recognized international measure of socio-economic and human development, would slow or even stall. Particular concern arose over the possible effects on achievement of MDGs 4 (reducing infant and child mortality) and 5 (reducing maternal mortality and achieving universal access to reproductive health) especially as reducing maternal mortality was, and remains, as, the least likely of the eight goals to be achieved by the target date of 2015.

Although different in many ways to previous economic shocks, the severity and global scope of the GFC prompted analysis on how previous economic shocks had affected health outcomes in developing countries. Several studies focused on how the GFC could affect women, infants and children, given that they are disproportionately represented amongst the poor and are particularly vulnerable to adverse economic shocks (Patel 2009; World Bank

2009b, 2009c, 2009d, 2010). For example, the World Bank reports that, historically, more than 1 million excess infant deaths may have occurred during 1980–2004 in developing countries experiencing economic contractions of 10% or higher (World Bank 2009c). Drawing on a study of previous crises in 59 developing countries, the World Bank also notes an average increase in infant mortality of 7.4 deaths per 1000 births for girls compared with 1.5 deaths per 1000 births for boys for every one or more unit fall in Gross Domestic Product (GDP) (World Bank 2009d). They also note that for a given decrease in per capita GDP, the mortality of infant girls is three times higher than for infant boys (World Bank 2009c). More recent studies find that economic downturns tend to have stronger effects, especially for girls, than economic booms: life expectancy of girls and boys increases by an estimated 2 years during good economic periods but decreases by 7 years for girls, and 6 years for boys, during adverse economic times (World Bank 2010).

It is still too early to say precisely how the GFC is affecting health outcomes in developing countries. This is due to the unprecedented, and country-specific, nature of the GFC. It is also because it may take years for some of the more significant—perhaps even irreversible—consequences of poor diets and withdrawing girls from school in the face of economic slowdowns to show up in health outcomes.

Nevertheless, some very recent estimates and modelling give some idea of the possible impact of the GFC on poverty and health outcomes. For example, researchers at the World Bank estimate that slower economic growth as a result of the GFC left around 50 million more people in extreme poverty (less than US\$1.25 a day) in 2009. More than half of this increase is estimated to have occurred in South Asia, with an estimated 10 million added to the poverty count in East Asia, and 7 million in sub–Saharan Africa (Ravallion 2009). It is estimated that a further 64 million will be in extreme poverty by the end of 2010 as a result of slower economic growth (World Bank 2010).

Indicative and illustrative estimates suggest an additional 265 000 infants, and 1.2 million children under 5, might die over the period 2009–2015 globally as a result of GFC-induced slowdowns (World Bank 2010). World Bank modelling suggests that the under-5 mortality rate will still continue to fall globally from pre-crisis levels, but will fall less than would have been the case in the absence of the crisis. For example, the under-5 child mortality in South Asia is projected to fall to around 76 per 1000 live births by 2015: still an improvement on a rate of 75/1000 just prior to the GFC, but not the 62.7/1000 thought to be likely in the absence of the GFC. Similarly, modelling suggests that the under-5 mortality rate will fall to around 24/1000 in East Asia and the Pacific, an improvement on rates of 27/1000

just before the GFC, but not as good as the 18.6/1000 estimated for 2015 in the absence of the GFC (World Bank 2010).

UNICEF has recently reported on the impact of the food, fuel and financial crisis in Asia. It finds that in the space of just 2 years, the number of people suffering from chronic hunger in South Asia increased by 100 million to reach more than 400 million by the end of 2008, particularly as a result of food price increases (UNICEF 2009a). UNICEF separately reports that in Cambodia, 'wasting among poor urban children increased from 9.6% in 2005 to 15.9% in 2008; exceeding the 15% wasting threshold for a "humanitarian emergency" (emphasis added) (UNICEF 2009b).

The 'other crisis': the challenge to improve maternal, newborn and child health outcomes in Asia

Asia is critical to any discussion about the GFC and development. While it is the region most likely to help draw the global economy out of recession, it also remains the centre of gravity of world poverty. Almost half of the world's absolute poor live just in South Asia alone, and one of every two individuals in Asia—or 1.7 billion people—live below the US\$2 a day poverty line (Asian Development Bank 2008).

Asia is also critical to any discussion about the possible effects of the GFC on maternal, newborn and child health outcomes globally. That is because, even *before* the GFC, Asia accounted for nearly 34% of global deaths of children under 5, more than 40% of global maternal deaths, and 60% of global newborn deaths (MNCHNAP 2009). This is also despite decades of rapid economic growth in much of Asia.

Of course, in a region as diverse as Asia, there are some very positive results, at least at the overall national level, in reducing maternal and child deaths, including for China, Bangladesh, Malaysia, Nepal, Thailand and Sri Lanka. On the other hand, if the Oxford Dictionary defines a crisis as 'a time of intense difficulty or danger', it is reasonable to argue that Asia was already facing another crisis albeit one that is less noticed, slower moving and longer running than the GFC. That 'other crisis' is the surprisingly poor pace and pattern of maternal, newborn and child health outcomes in much of Asia, despite this being the fastest growing region in the world.

Table 1 highlights some key indicators of maternal, infant and child health in Asia, as well as just two service coverage indicators known to be important for maternal and child health and captured by the MDGs (contraceptive

prevalence rate and percentage of births attended by a skilled health professional).

Table 1Maternal, newborn and child health indicators for selected countries in Asia

Location	Contraceptive prevalence (%) (2000– 2008)	Births attended by skilled health personnel (%) (2000– 2008)	Infant mortality rate (per 1000 live births) both sexes (2008)	Maternal mortality ratio (per 100 000 live births) (2005)	Under-5 mortality rate (per 1000 live births) both sexes (2008)
Afghanistan	18.6	14	165	1800	257
Bangladesh	55.8	18	43	570	54
Bhutan	30.7	51	54	440	81
Cambodia	40	44	69	540	89
China	86.9	98	18	45	21
Korea DPR	68.6	97	42	370	55
India	56.3	47	52	450	69
Indonesia	61.4	73	31	420	41
Lao PDR	32.2	20	48	660	61
Maldives	39	84	24	120	28
Mongolia	66	99	33	46	41
Myanmar	37	57	76	380	122
Nepal	48	19	41	830	51
Pakistan	29.6	39	72	320	89
Philippines	50.6	62	26	230	32
Sri Lanka	68	99	13	58	17
Thailand	81.1	99	13	110	14
Timor- Leste	10	19	75	380	93
Vietnam	79	88	12	150	14

^aThe MDGs measure the rate of deaths of infants and children per 1000 live births. While it is in principle possible to estimate the rate of maternal deaths per living woman, a more appropriate measure is the ratio of maternal deaths per 100000 live births.

The statistics in Table 1, and those in the discussion below, confirm that while much progress has occurred in Asia, there remain some very high burdens of maternal, newborn and child mortality and morbidity. The inability to reduce these levels further during recent decades of rapid economic growth leaves them vulnerable to slower progress during a GFC-induced slowdown.

Maternal deaths before the GFC

Despite remarkable progress in many countries, maternal deaths were already high in many parts of Asia before the GFC. Latest estimates suggest that six of the 10 countries with the highest numbers of maternal deaths in the world in 2008 were in Asia: India, Pakistan, Afghanistan, Bangladesh, Indonesia and China, These six Asian countries alone contributed 40% of the estimated 342 900 (uncertainty interval 302 100 – 394 300) global maternal deaths in 2008. Afghanistan continues to have the highest estimated maternal mortality ratio in the world 1575/100 000 live births (594–3396) (Hogan *et al.* 2010).

Newborn deaths before the GFC

Even before the GFC, Asia also had a high global burden of newborn deaths. Of the 450 newborn babies who died every hour around the world, over half are in just six Asian countries: Afghanistan, Bangladesh, China, India, Indonesia and Pakistan. An alarming 15% of the world's newborn deaths occur in just three states of India: Bihar, Madhya Pradesh and Uttar Pradesh (MNCHNAP 2009). Around half of the 20 million illegal or unsafe abortions that occur worldwide each year take place in South, West and Southeast Asia, more than in Africa and Latin America combined (Warriner and Shah 2006).

Under-5 deaths before the GFC

Even before the GFC, numbers, and sometimes rates, of under-5 deaths were also high in parts of Asia. According to the latest estimates (Black et al. 2010), just five countries in Asia (India, Pakistan, China, Afghanistan and Bangladesh) accounted for 3.15 million child deaths in 2008, or 36% of all such deaths in 193 countries worldwide. Five Asian countries (Cambodia, India, Myanmar, Pakistan and Tajikistan) were making 'insufficient' progress to achieve MDG 4 of reducing child mortality by 2015 even before

the GFC, and two (Afghanistan and the Democratic Republic of Korea) were making 'no progress' (WHO and UNICEF 2010).

Under-nutrition before the GFC

Under-nutrition, an important risk factor undermining the health of women and their children, was also alarmingly high in much of Asia before the GFC and food price increases. The prevalence of underweight children below 5 years of age was 27% for all developing countries, but was 46% for South Asia, and India's levels of child malnourishment were almost double those in sub-Saharan Africa (Asian Development Bank 2006). Latest estimates through the *Countdown* exercise suggest that over half (52.3%) of the world's stunted (low height for age) children come from just six countries in Asia (India, China, Pakistan, Indonesia, Bangladesh, Philippines): an estimated 104.5 million children (WHO and UNICEF 2010).

Inequity before the GFC

Despite, or because of, rapid economic growth, Asia already had some of the most inequitable maternal, newborn and child health outcomes in the world prior to the GFC. The infant mortality rate for the poorest quintile in East Asia was already three times that of the richest quintile; higher than Latin America (2.6), South Asia (2.2) or sub–Saharan Africa (1.7) (Yazbeck 2009). Otherwise good national–level figures can mask important internal inequities in maternal, newborn and child health. Vietnam had the lowest under–5 mortality rate (33/1000 live births) of 56 low– and middle–income countries recently surveyed. Nevertheless, Vietnam had under–5 mortality rate inequalities which were amongst the highest in the world, and were third largest of the 56 countries surveyed (Gwatkin 2008). Slower growth as a result of the GFC is unlikely to reduce inequity, and may increase it.

Thus, despite rapid economic growth and some remarkably good outcomes at the individual country level, Asia as a whole faced major challenges in reducing maternal, newborn and child health with equity even before the GFC. The next section argues why the level and pattern of expenditure made many countries in Asia more vulnerable to a GFC-led economic slowdown than would otherwise be the case.

The global financial crisis exposes and exacerbates the structural problems and vulnerabilities of health financing in Asia

Many factors, both inside and outside the health system, explain maternal, newborn and child health outcomes, including conflict, caste, class, customs, education levels and availability of water and sanitation. However, the level and pattern of expenditure on health is an important policy instrument that is, ultimately, in the hands of governments to control directly.

This section argues that the GFC exposes, and in some ways exacerbates, five pre-existing vulnerabilities that are characteristic of health expenditure, particularly for maternal, newborn and child health, in many countries of Asia.

Levels of total and government health expenditure

First, total expenditure on health was surprisingly low in much of Asia even before the GFC subsequently squeezed household and government budgets. In South Asia, for example, an average of just US\$26 per person per year was spent in total health expenditure in 2006, a level lower than even sub-Saharan Africa (Gottret and Schieber 2006). The World Health Organization (WHO) Commission on Macroeconomics and Health (WHO 2001) finds that, on average, a set of essential interventions against infectious diseases and nutritional deficiencies requires total health expenditure of approximately US\$34 per person per year (US\$ 2002) in East and South Asia. Table 2 shows the great variety of expenditure patterns within countries of Asia, including the fact that several countries still have total per capita health expenditure well below the recommended US\$34.

Table 2Selected health expenditure for selected countries in Asia, 2007

Country	Total per capita expenditure on health at average exchange rate (US\$)	General government expenditure on health as % of total government expenditure	Out-of- pocket expenditure as % of private expenditure on health	Per capita government expenditure on health at average exchange rate (US\$)	Total expenditi on health % of gros domestic product
Afghanistan	42	3.7	98.9	10	7.6
Bangladesh	15	8.0	97.4	5	2.7
Bhutan	75	10.7	100	60	5.2
Cambodia	36	11.2	84.7	10	5.8
China	108	9.9	92	49	4.6

India	40	3.7	89.9	11	4.4
Indonesia	42	6.2	66.2	23	2.2
Lao PDR	27	3.7	76.1	5	4.0
Malaysia	307	6.9	73.2	136	3.2
Mongolia	64	9.1	84.4	52	4.3
Myanmar	7	0.9	95.1	<1	1.9
Nepal	20	10.9	90.8	8	5.1
Pakistan	23	3.5	82.1	7	2.7
Philippines	63	6.7	83.7	22	3.9
Sri Lanka	68	8.5	86.7	32	4.2
Thailand	136	13.1	71.7	100	3.7
Timor- Leste	58	14.9	37.2	49	13.6
Vietnam	58	8.7	90.2	23	7.1

Source: World Health Statistics 2010 (WHO 2010).

Second, government expenditure on health care was also surprisingly low in many countries on virtually any measure, even before the crisis, thereby providing only the minimum of social protection buffers when the GFC-induced slowdowns occurred. As seen in Table 2, per capita government expenditure on health is very low: US\$5 per person in Bangladesh and Lao PDR in 2007, US\$7 per person in Pakistan and US\$11 in India in 2007 (WHO 2010). Per capita government expenditure on health was lower, at just US\$15 per person, in WHO's South-East Asia region in 2007 than in any other region of the world, including sub-Saharan Africa (WHO 2010). These low figures are not artifacts of exchange rates, and nor are they counterbalanced by the lower prices of goods and services in these countries; converting per capita government expenditure to 'international dollars' presents a similar picture.

Government expenditure on health was already low as a proportion of GDP prior to the GFC. The WHO Commission on Macroeconomics and Health estimated that East Asia and the Pacific should spend 2.8% of GDP on health by 2007, and South Asia 5.7% (WHO 2001). Furthermore, the WHO Health Financing Strategy for the Asia Pacific Region (2010–2015) finds that universal coverage for health care, important for both access and financial protection, is usually attained in countries in which public financing of health is around

5% of GDP (WHO 2009a). Figure 1 shows that 17 developing countries in Asia spent less than 5% of GDP in 2006.

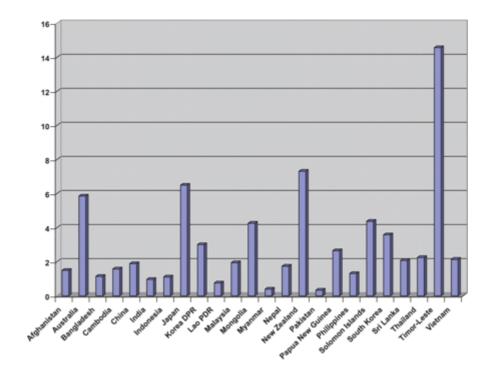


Figure 1 Government health spending as a percentage of GDP in selected countries of Asia and the Pacific, 2006. *Source*: WHO Statistical Information System (http://www.who.int/whosis/en/index.html).

General government spending on health *as a proportion of total government spending* was also often very low in Asia, and below the 15% adopted by African countries as a benchmark. Indeed, Table 2 shows that in 2007, the latest year available, general government expenditure on health was less than even 5% of total government spending in Afghanistan, India, Pakistan, Myanmar and Lao PDR.

The third vulnerability is that, even when governments seek to protect, or even increase, the share of government expenditure on health as a percentage of GDP in the face of a GFC-induced slowdown, health expenditure will decline as GDP itself contracts, unless special measures are taken. Similarly, maintaining the share of health as a percentage of total government outlays will still result in falls per capita if overall government expenditure was itself part of a shrinking pie and no other action taken. Thus, in the wake of the Asian financial crisis of the late 1990s, government health expenditure declined in real per capita terms in Indonesia from an already low US\$8 per capita in 1996 to just US\$3 in 1998 (World Bank 2009c).

The fourth vulnerability in the face of a GFC is that evidence from past economic shocks suggests that governments, reluctant or unable to reduce employment levels, have allowed the burden of adjustment to fall heaviest on non-salary items, including drugs. Essential capital spending may also be

delayed or abandoned (WHO 2009b). This is especially true when, following an economic shock such as a GFC, a country faces a depreciating exchange rate against countries that supply it with drugs or capital items.

GFC interacts at the household level

The GFC highlights a fifth structural problem and vulnerability of health financing in Asia, especially when governments are trying to protect citizens from further falling into poverty. That structural problem has its roots in the fact that low levels of government expenditure are often accompanied by high levels of private and out-of-pocket (OOP) expenditure in Asia. This is illustrated in Figure 2.

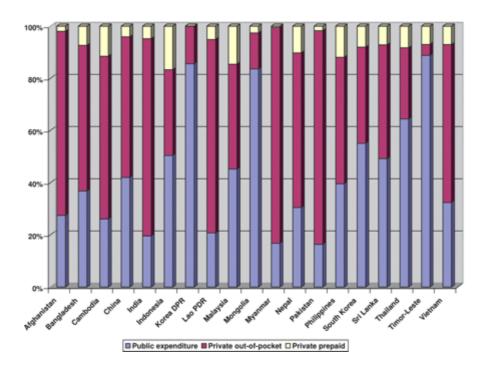


Figure 2 Private (out-of-pocket and prepaid) versus public expenditure on health in selected countries of Asia, 2006.

WHO notes that levels of OOP expenditure on health in this region are much higher than in other regions of the world (WHO 2009a). In the absence of risk pooling and insurance, such high levels of OOP expenditure are potentially 'catastrophic', ¹ and therefore an independent source of impoverishment and inequity even before an economic shock such as the GFC. Van Doorslaer *et al.* calculated that more than 78 million people fell below the then US\$1-a-day poverty line in Asia just through paying for health care (van Doorslaer *et al.* 2006). WHO notes that the average cost of a one-time hospital visit in rural China can be well over the annual income of a poor peasant, and that 80% of poor people needing hospitalization did not obtain it because of the expense (WHO Western Pacific Region 2007). Catastrophic expenditures can also lock poor people into debt and impoverishment. In Cambodia, Van Damme *et al.* (2004) found that, in 2001, most families studied went into debt to pay for dengue treatment for their

children. One year later most families were still unable to settle their debts and were paying high interest rates of between 2.5% and 15% per month (van Damme *et al.* 2004).

The adverse effects of OOP expenditure are particularly significant when it comes to maternal, newborn and child care. That is because such medical expenses can be large (in comparison with household income), sudden and unexpected. Even before the GFC, half the families in Bangladesh did not have enough cash to pay for a delivery attended by a skilled health worker, and nearly three-quarters did not have enough for a Caesarean section (Anwar et al. 2008). Borghi et al. show that in Bangladesh the total cost of health care during pregnancy, delivery and the postpartum period amounted to an average 15% of annual income for those women delivering at home; rising to 35% for delivery in a basic obstetric facility, and to 452% for delivery in a public comprehensive obstetric facility (Borghi et al. 2006). Other indirect costs, including transportation costs, bribes and foregone incomes, only add to the financial burden.

Even a relatively small payment for maternal, newborn and child care can mean either a financial barrier to essential care or a financial catastrophe to a poor person or household, forcing them to reduce other basic expenses such as food, shelter or their children's education. Recent analysis by the Asian Development Bank finds that even expenditure associated with the most basic, home-based, maternal health care was 'catastrophic' for virtually all households from the poorest decile in India (Bonu et al. 2009).

In short, the high level of OOP expenditure for health, so characteristic of much health financing in Asia, already leaves poor families vulnerable to falling into, or remaining in, poverty. A loss of jobs or reduced income through a GFC slowdown then puts further pressure on household budgets, especially in Asia where few are protected by social safety nets. Certain common coping strategies at the household level, including buying cheaper but less nutritious food, taking girls out of school, further delaying health care, or self medicating, further undermine health outcomes, possibly irreversibly.

Simply expanding government expenditure on health in the light of a crisis will not overcome such inequities if the main channels of expenditure are already disproportionately focused on wealthier provinces, and/or hospital-based urban centres, away from the majority of the poor. Even when targeted at the poor, government expenditure is still often captured by the better off. For example, Yazbeck found that only about 10% of the total net public subsidy for health went to the poorest 20% of the population in India, with the highest wealth quintile benefiting three times more that the lowest quintile (Yazbeck 2009). Ravallion shows that when developing countries such as Bangladesh and India cut total public spending in response to an

economic shock, political economy factors intervened to such an extent that benefits originally targeted at the poor tended to be captured by wealthier and more powerful segments of society instead (Ravallion 2002).

Policy initiatives for governments to consider specifically in the light of an economic shock

Governments have an increasingly wide menu of policy options to improve the health outcomes of their citizens, and protect the vulnerable from financial distress over the medium to longer term. Options that have been trialled with success in Asia already include social health insurance, health equity funds, performance contracting and innovative public—private partnerships (Bhushan et al. 2002; Ashford et al. 2006; Loevinsohn 2008; Gottret et al. 2008).

However, there are two possible policy initiatives open to governments that are especially attractive to them in the light of an economic shock like the GFC. These particular two options are identified out of the broad menu of programming options available to governments because, if well designed, they *simultaneously* improve health access and outcomes for the poor and vulnerable, *and* protect the poor from financial distress, while *also* providing an improvement to public financing and/or providing a much needed counter-cyclical stimulus to the economy.

Conditional cash transfers, including for nutrition

One promising policy option in the face of an economic shock such as the GFC is the use of conditional cash transfers (CCTs): the tying of cash payments or other material benefits to achievement of desirable health behaviours such as immunization, full antenatal care, nutritional supplements for at-risk groups including pregnant women, and increased skilled birth attendance amongst the poor.

In addition to encouraging access and uptake of essential health services, adequately funded and well-targeted CCTs have a potential poverty reducing effect, turning an expense and barrier to care—such as fees for skilled birth attendance or buying more nutritious food—into a direct source of income for poor women. There is some evidence that CCT expenditures also have strong stimulating and multiplier effects on the local economy (Save the Children UK 2009). The likelihood that poor people spend extra cash from CCTs on local essentials such as food, transport and housing improvements also means there is little 'leakage' to foreign imports, giving CCTs a stronger counter-cyclical effect during an economic shock than some other alternatives.

A particularly strategic target for CCTs in Asia would be to promote nutrition, especially amongst pregnant women. Under-nutrition is already a major policy and development challenge in much of Asia. Recent research finds that under-nutrition in pregnant women, infants and children up to the first 2 years of age can all too easily become irreversible, undermining health, physical stature, cognitive development and economic productivity in this and the next generation (Victora et al. 2008). Past economic shocks in Asia have been associated with reduced nutritional status: in Thailand, there was a 22% increase in anaemia amongst pregnant women during the Asian financial crisis (Knowles et al. 1999). There was also higher prevalence of wasting among women and under-5s and micronutrient deficiencies (Macfarlane Burnet Centre for Medical Research 2000).

While not without their limitations, several innovative CCT schemes have been introduced, including in response to a crisis, and if well designed, they can be affordable, cost-effective and operate at scale (Devadasan *et al.* 2008; WHO 2008; Fiszbein and Schady 2009; Singh *et al.* 2009; Asian Development Bank 2010b).

Raising government revenue for essential health care through earmarked increases in tobacco taxation

An economic shock such as the GFC reduces the fiscal space for health and other expenditures as government revenues shrink in the face of an economic downturn and yet the need for counter-cyclical expenditures rise. Governments can increase fiscal deficits, incur debt, or seek donor financing, but each of these options have their own potential drawbacks.

One potentially attractive option that can rapidly increase government revenues while simultaneously helping to avert significant health care costs in the medium to long term is to significantly increase the taxation on tobacco consumption. Earmarking tobacco taxes to expand already underfunded public health programmes, including for women and children, is a policy 'win win'. Tobacco taxation is an area where public health and public finances overlap and reinforce each other, so there is a readily understandable political narrative that policy makers can use, especially during an economic shock. Studies in Southeast Asia show that tax increases on tobacco are the most powerful, cost-effective, policy tool to reduce tobacco use, and that tax increases would increase total tax revenues, even if smuggling increased to some extent: increasing tobacco prices by 5% annually in real terms over the period 2000–2010 could generate an extra US\$994 million in Bangladesh, and US\$440 million in Nepal (Guindon et al. 2003).

Asia is already in the middle of a tobacco epidemic, with significant health losses, especially amongst working-age males. Murray and Lopez note that 'The largest increases in the epidemic of tobacco-related mortality will be in India, China, and other Asia and islands, where attributable deaths will increase from 1.1 million to 4.2 million by 2020 ... by which time tobacco is projected to cause more deaths than any single disease worldwide' (Murray and Lopez 1997: 1502). Tobacco-related diseases also impose large financial and economic costs on developing countries. Tobacco-related illnesses cost the Indian government US\$5.8 billion in 2000; and the lost productivity due to premature deaths cost US\$2.4 billion in China (WHO 2004).

Importantly, expenditure on tobacco is also highly regressive in developing countries, robbing the poor of their health, and their income, the most. As WHO notes (WHO 2004: xiii): 'In Bangladesh, households with an income of less than \$24 a month smoke twice as much as those on much higher incomes. The average amount spent on tobacco by the poorest 10 million male smokers could buy an additional 1400 calories of rice per day, or significant amounts of protein for each family. If these men quit, and put 70% of their saved income into food, this would provide enough calories to save 10.5 million Bangladeshi children from malnutrition.' Earmarking additional revenue from tobacco taxation to politically visible but underfunded public health budgets of importance to the poor, including maternal and child health, is a potentially attractive policy option for governments.

Need for other underlying reforms

CCTs and increasing tobacco taxation (and earmarking it to the health sector) are two initiatives that have particular and specific resonance during an economic shock like the GFC. That is because, if well designed, they both can *simultaneously* improve health outcomes and provide either a muchneeded counter-cyclical stimulus (CCTs) or much-needed government revenue (tobacco taxation) at the time they are needed most

However, such initiatives need to be supported by deeper structural reforms in health financing in Asia. Scarce resources have to be allocated to maximum effect in good economic times; and all the more so when developing countries face a global financial crisis or economic slowdown. Low levels of public health expenditure, and relatively high levels of OOP expenditure, mean that several Asian countries will remain vulnerable to the effects of the next, inevitable, economic shock. Nor are such countries well positioned to respond to the substantial health financing challenges of ageing populations and the rise of often expensive-to-treat non-communicable diseases such as cancers, diabetes and cardio-vascular disease.

Against that background, a group of major development partners sought to increase the level, effectiveness, efficiency and equity of health expenditure in Asia, particularly with respect to maternal, newborn and child health. This particular initiative is interesting and noteworthy because it situates health financing in the context of an investment programme, linking evidencebased technical interventions with fiscal space analysis, and estimating the additional investment costs required to achieve progress in the healthrelated MDGs. The initiative argues that investing in maternal, newborn and child health makes economic sense by averting otherwise preventable health care costs, safeguarding other investments in human capital, and setting in train long-term and favourable fertility and demographic trends. The assessment and recommendations for improved public expenditure and resource allocation were launched at the Annual General Meeting of the Asian Development Bank in May 2009 (MNCHNAP 2009). The presence of numerous Ministers of Finance, and Planning, made this a fitting venue, emphasizing that public expenditure management and resource allocation for health care, including maternal, newborn and child health, is an investment in economic growth and socially inclusive development.

Conclusion

Current health financing systems in much of Asia are not well placed to respond to the needs of women and their children, or the recent global financial and economic slowdown. Public expenditure is already too low, and high levels of OOP health expenditure are an independent cause of inequity and impoverishment for women and their children. The global financial crisis highlights the need for reforms that will improve health outcomes for the poor, protect the vulnerable from financial distress, improve public expenditure patterns and resource allocation decisions, and so strengthen health systems. Conditional cash transfers, increasing taxation on tobacco, and increasing the level, and quality, of public expenditure through well-designed investment programmes are initiatives that can improve public health, and public finances, while protecting the poor.

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Endnote

¹ WHO defines 'catastrophic expenditures' as health care payments reaching or exceeding 40% of a household's capacity to pay in any one year. The household capacity to pay is, in turn, defined as its non-food spending.

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