Promoting Growth, Ending Poverty
ASIA2015
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Session 3: Realising the Potential of Poverty Reduction

Parallel Group 3B: Topic Paper 4

Future Policy Choices for the Health Sector in Asia

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March 2006

Future Policy Choices for the Health Sector in Asia[1]

1. Introduction

This paper looks at what actions might be required to scale up access to health services in order to contribute to achieving the Millennium Development Goals (MDGs), particularly those related to health. It is intended to contribute to discussion among the low income developing countries in Asia and their development partners. It was prepared in early 2006 as part of the preparations for the Asia 2015 Conference to be held in March 2006.

The paper focuses on 13 Asian countries; nine were selected as countries that are current recipients of aid from DFID, and four others were chosen that have achieved higher incomes or better health outcomes in recent decades. The choice of countries is intended to illustrate experience in Asia, and particularly lessons in health sector development and financing. The DFID-supported countries are Afghanistan, Bangladesh, China, Cambodia, India, Indonesia, Nepal, Pakistan and Vietnam, while the comparators are Malaysia, Philippines, Thailand and Sri Lanka.

The paper starts by reviewing where the countries stand in terms of reaching the health related MDGs and the health service characteristics that underlie these. It also reviews the data on their health expenditure against international standards. Section 3 considers the characteristics of health service delivery in the countries and what the main barriers are to increasing access to healthcare. It identifies some of the approaches taken to address these barriers. Section 4 considers broad options for scaling up and the role of Government in this process. Section 5 goes on to consider options for health financing and how these can develop. Section 6 suggests some critical actions and next steps, based on the earlier sections, to move towards scaling up in a country led and sustainable way.

2. Where are Asian Countries now in their Health and Health Sector Efforts?

Looking at *progress towards the MDGs,* Asia has made good progress and is on track for poverty reduction, reducing hunger and for safe water supply. Enrolment in primary education is

[1] The DFID Health Resource Centre (HRC) provides technical assistance and information to the British Government's Department for International Development (DFID) and its partners in support of pro-poor health policies, financing and services. The HRC is based at HLSP's London office and managed by an international consortium of five organisations: HLSP Ltd, UK; Ifakara Health Research and Development Centre, Tanzania (IHRDC); ICDDR,B - Centre for Health and Population Research, Bangladesh; Sharan, India; Swiss Centre for International Health (SCIH) of the Swiss Tropical Institute, Switzerland.
This report was produced by Veronica Walford and Mark Pearson of HLSP Institute, London and Ravi Rannan Eliya and Tharanga Fernando of Institute for Health Policy, Colombo for the Health Resource Centre on behalf of the Department for International Development, and does not necessarily represent the views or the policy of DFID.

reasonably high (although not on track for universal enrolment in some countries). All these will contribute to improving health status. But progress on the health related MDGs is more mixed:

- Many of the countries have made good progress on infant and child mortality: Bangladesh, Indonesia, Nepal, the Philippines, Sri Lanka and Vietnam had roughly halved their child mortality rates between 1999 and 2004, suggesting good prospects to reduce it by two-thirds by 2015, in line with the MDG
- However, India and Pakistan have made less progress, while Afghanistan is not judged to have changed significantly over the period, reflecting the conditions there. Cambodia is the exception where infant and child mortality rates are estimated to have increased (see Annex Table A1)
- For maternal mortality, East Asia was assessed by the UN as likely to meet the MDGs but much of South and South-East Asia were not[2]
- In communicable disease control, the UN was also concerned that targets in malaria, TB and HIV are unlikely to be met, with particularly poor progress in addressing HIV in South Asia.

The MDGs look at relative performance over time for each country. In absolute terms, some of the health indicators are promising while others are poor. Annex Table A1 shows the levels of the key indicators for the selected countries and their change since 1999. This indicates great disparities across Asia, with high child mortality in Afghanistan and Cambodia (comparable with levels in Africa), while maternal mortality remains very high (above 400) in Afghanistan, Nepal, India, Pakistan and Cambodia.

The levels of mortality are higher in low income countries but this is not a sufficient explanation. Thus Pakistan has similar average *per capita* income as Vietnam, but its child and maternal mortality rates are four times higher. The Philippines has comparable income with China, and similar child mortality levels, but almost four times the rate of maternal mortality. Bangladesh has significantly lower income than India or Pakistan but manages a third lower rate of maternal mortality. Note that these figures relate to 2003 and are estimates.

In addition to income/living standards, other reasons for variation in performance include the *different disease patterns and demographic structure* and differences in health service access and health-related behaviours. For example, the scale of HIV and AIDS is much greater in India, Cambodia and Thailand (see Annex Table A1). All the countries reviewed here are classified as High Burden for TB apart from Sri Lanka, Nepal and Malaysia; but prevalence is particularly high (over 350 per 100,000) in Cambodia, Indonesia, Afghanistan, Bangladesh, Pakistan and the Philippines. A high fertility rate per woman is associated with high maternal mortality, and some countries in the region have seen rapid decline in fertility rates and numbers of births. Health

[2] Regional progress from the UN: unstats.un.org/unsd/mi/pdf/MDG%20Chart%20Sept.pdf

behaviours differ by gender in parts of the region – as indicated by the better survival rates of baby boys than baby girls in most of South Asia and China.

Looking at *health services indicators* related to the MDGs, they show that countries that have the highest maternal mortality rates tend to have low contraceptive prevalence and skilled birth attendance (e.g. Afghanistan, Cambodia, Nepal, Pakistan; see Annex Table A2). This is likely to reflect both differences in access to services and the social conditions that enable women to space their children and seek medical care. Bangladesh has made much more progress with contraceptive use but still has low levels of skilled birth attendance.

Indicators for TB service outcomes show desperately low detection rates in two of the high burden countries, Pakistan and Afghanistan, but also room for improvement in Bangladesh, Indonesia, India and China. The new Global Plan to Stop TB (2006–15) notes the major progress made in the high burden countries with increasing treatment coverage and success rates, and falling prevalence as a result. The Plan points out the need for continued commitment; expansion of treatment including through private providers where these are widely used; and addressing TB with HIV where relevant.

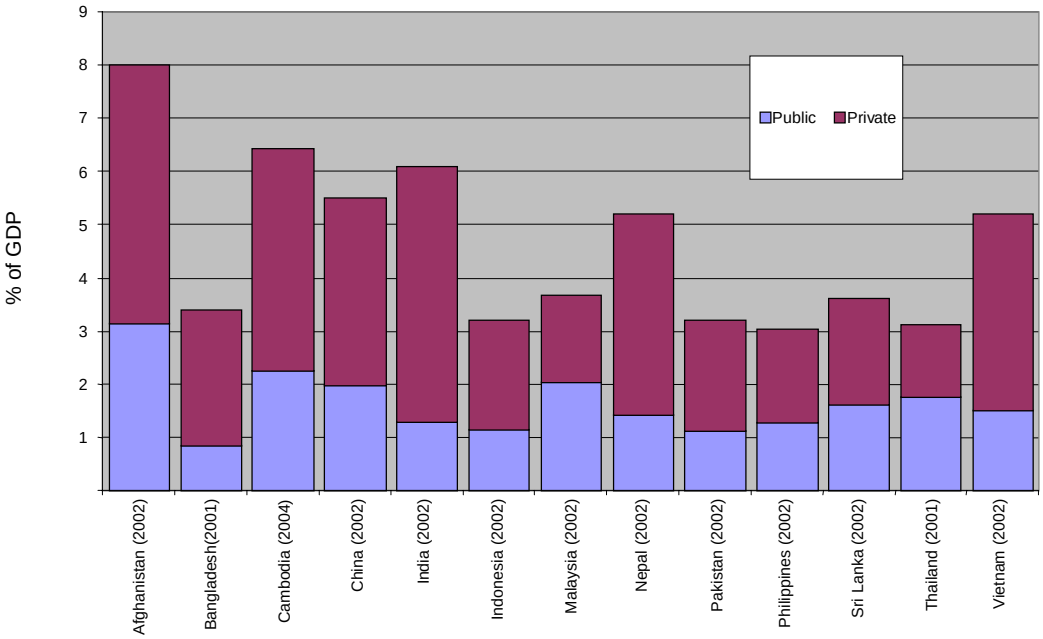
One of the explanatory factors for low service coverage is the *level of expenditure on health.* Annex Table A3 shows the level of spending in US$ *per capita*, and indicates that Pakistan, Nepal, Bangladesh and Afghanistan are all estimated to be spending around US$12–16 *per capita*. This helps explain poor coverage. However, India and Sri Lanka are spending similar amounts (around US$30) and it is hard, from this perspective, to see why India's health indicators are so poor compared with Sri Lanka's, without considering the issue of health system efficiency. Similarly, Cambodia and Vietnam are spending similar amounts, but health outcomes are significantly better in Vietnam.

Figure 1 shows the sources of health spending relative to income. Cambodia, India and Afghanistan spend most on health by this measure.[3] Health expenditure from the private sector (mostly out of pocket spending on fees and medicines), varies widely with the highest levels relative to income in India and Cambodia. Despite higher spending, these countries do not show better results in terms of health outcomes, suggesting that at least some of the expenditure is wasted – on services that are poor quality or poor value for money, or because of skewed allocation so the expenditure only reaches a subset of the population. Private spend is also substantial in China, Nepal and Vietnam.

There are significantly lower levels of private spending relative to income in the better off comparators (private health spending in Thailand, Malaysia, Philippines and Sri Lanka is less than 2 per cent of the GDP).This is consistent with wider international experience that the share of health spending which is publicly funded rises with income. Annex Figure A2 shows how public health spending tends to rise relative to income for various countries in Asia.

[3] Caution is needed on the quality of data for Afghanistan.

Figure 1: Health spending by source as percentage of GDP



Among the low income countries there is diversity in levels of public spending, with particularly low public spending effort by Bangladesh, Pakistan, the Philippines, India and Indonesia (all below 1.3 per cent of GDP, including donor support). In India, public spending on health has been around 1 per cent of GDP (to 2002/3) and lower, and even falling, in some states, compared with a target of 2 per cent set out in the 2001 Health Policy.

A crude indicator of the level of expenditure that would be required to provide basic health services is the average figure calculated by the Commission on Macroeconomics and Health. This figure was US$34 total health spend *per capita* in 2002 prices. This suggests insufficient funding is available in most but not all the countries; Malaysia, China and Thailand are well above this level in terms of total health spending *per capita*, even if the distribution of spending at present means that there is not equitable access and uptake of health services.

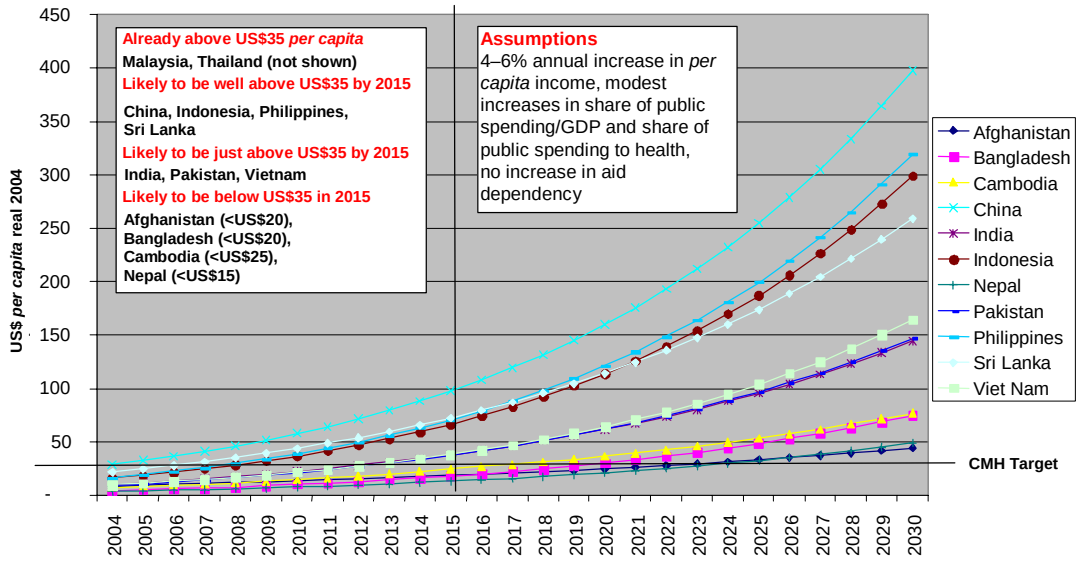
However, the fact that some countries are attaining measurably better levels of service coverage with lower levels of expenditure (e.g. Sri Lanka's public sector spends only US$15 *per capita*) provides an important reminder that health systems inefficiency is a critical and usually neglected issue, and one which was not incorporated in the calculation of CMH cost estimate.

In order to assess *whether the selected countries are likely to be able to fund basic services by 2015*, estimates were made of which counties are likely to reach a level of US$35 *per capita* public spending by 2015.[4] The results are in Figure 2, and indicate that:

[4] The assumptions for these estimates are in Annex 2. The benchmark of US$35 public spending was chosen on the assumption that much of the private sector spending is not used efficiently for basic health services, while some public funding is also used for non-basic services. This figure is consistent with estimates of the marginal cost of scaling up to reach the MDGs by Devarajan and Swanson.

- Afghanistan, Bangladesh, Cambodia and Nepal will not reach US$35 *per capita* public spend by 2015. These countries will need continued external support to improve health services and also need a focus on improving the efficiency of their health systems.
- India, Pakistan and Vietnam are estimated just to reach the level, but this is sensitive to the assumptions that they will be able to steadily raise the share of public spending for health, as well as continued economic growth. Again the impact on health will also depend on more efficient and equitable use of resources within the health system.
- Improving efficiency requires appropriate allocation between provinces/states and between basic services and other health services, such as specialist hospitals, as well as efficient use of funds (e.g. the right balance between staff, drugs and other inputs).

Figure 2: Projected public expenditure on health: selected Asian countries – medium assumptions



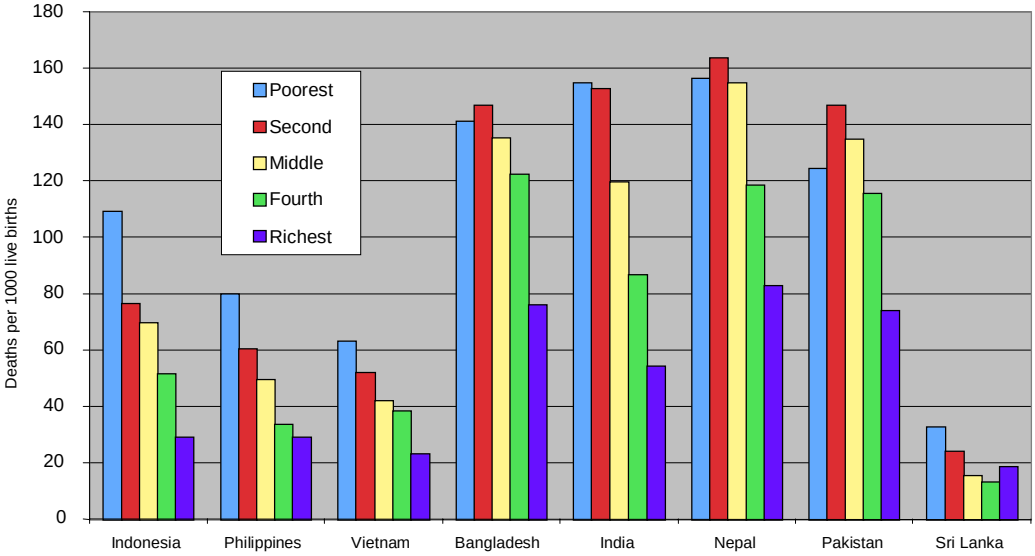
Sources: HLSP estimates based on World Development Indicators 2005, UN Population Division, World Bank: Economic Prospects

This approach to estimating funding needs is very crude. It does not take into account that prices vary across countries and that pay levels rise with rising income. Also there are differences in countries that will affect costs – for example, the disease burden will affect service and drug needs; population density will affect the number of facilities required; and the extent of existing infrastructure will affect the costs of scaling up. In addition, this only looks at health spending when improvements in health rely on much more than access to adequately funded health services, e.g. access to safe water and education. It also assumes the health system could absorb additional funding efficiently. Despite their shortcomings, the estimates give a sense of whether future funding should be enough for the public sector to fund basic services, should the Government choose to allocate the resources in this way.

Another key issue is the *disparities in health and health services use within the country.* Demographic and Health Surveys (DHS) data enable estimates of access by income groups within

the population and show considerable differences. Figure 3 shows the results from DHS for seven countries, for various years when the surveys were conducted. In all countries, there is considerably better health among the better off, with greatest disparity in Child Mortality Rates between the rich and poor in India and Indonesia.

Figure 3: Under-5 mortality rate by income quintile



Source: Various DHS

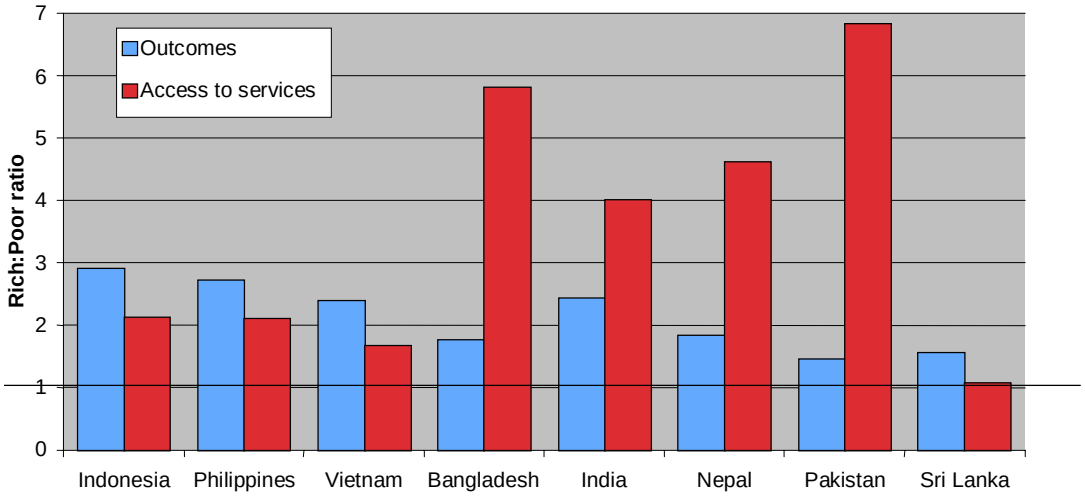
The DHS data suggests that the richest people in Pakistan have worse child (and infant) mortality levels than the poorest families in Vietnam, whilst the richest 20 per cent of Indian families face similar levels of infant mortality and only slightly better child mortality than the rural poor population in Vietnam. Yet all have similar numbers of doctors relative to population. The difference may partly be explained by lower health expenditure in Pakistan, but in India where total health spending *per capita* is higher, this suggests that the population is getting poor value from its health spending, alongside other differences that contribute to child health (for example, education enrolment is markedly higher in Vietnam).

The DHS results also show the variation between rich and poor within countries in the uptake of services (see Figure 4). Apart from Sri Lanka which has equitable access, the poorest 40 per cent always have less access to services than the better off. This disparity is particularly strong for immunisation, and attended deliveries, and for Pakistan, Bangladesh, Nepal and India. The picture is not consistent across all services however, for example, in measles immunisation, Bangladesh performs as well as Vietnam or the Philippines.

Benefit incidence analysis looks at *who within the population benefits from the public expenditure on health.* The findings (Figure 5) show a wide variation in the share of public subsidies which benefit the poorest 20 per cent with spending on hospital services being pro-poor in Sri Lanka and Malaysia but extremely pro-rich in Nepal, Indonesia and China. Better performance reflects both supply factors – reasonably well run and geographically dispersed facilities and demand factors –

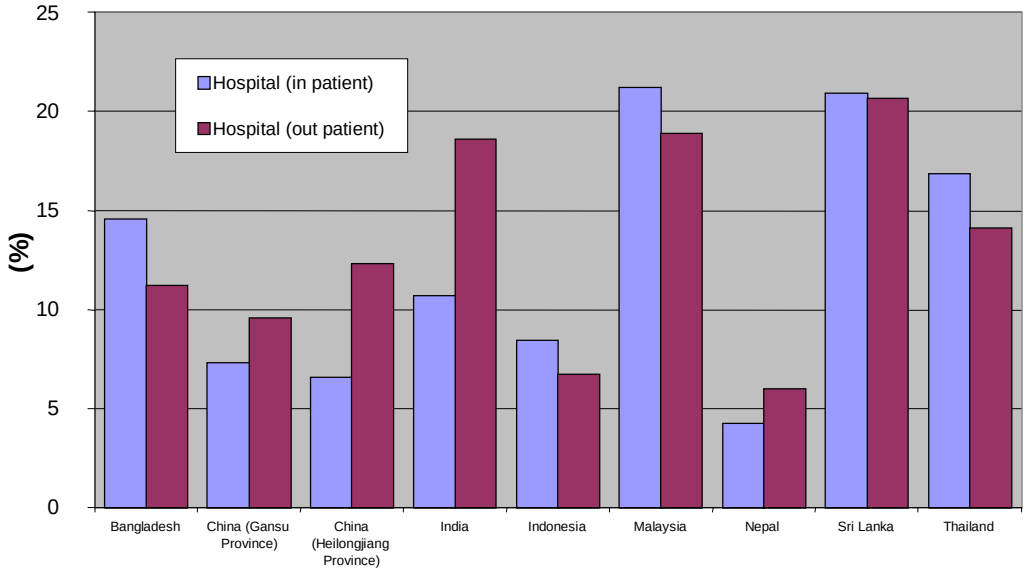
free or low cost services that the lower income groups can use, while the better off tend to access private services.

Figure 4: Equity in outcomes and access to services by country



Source: Various DHS outcomes; Under 5 MR, Infant MR, vaccination for measles and DPT3, attended delivery, antenatal care attendance

Figure 5: Proportion of benefits to poorest 20%

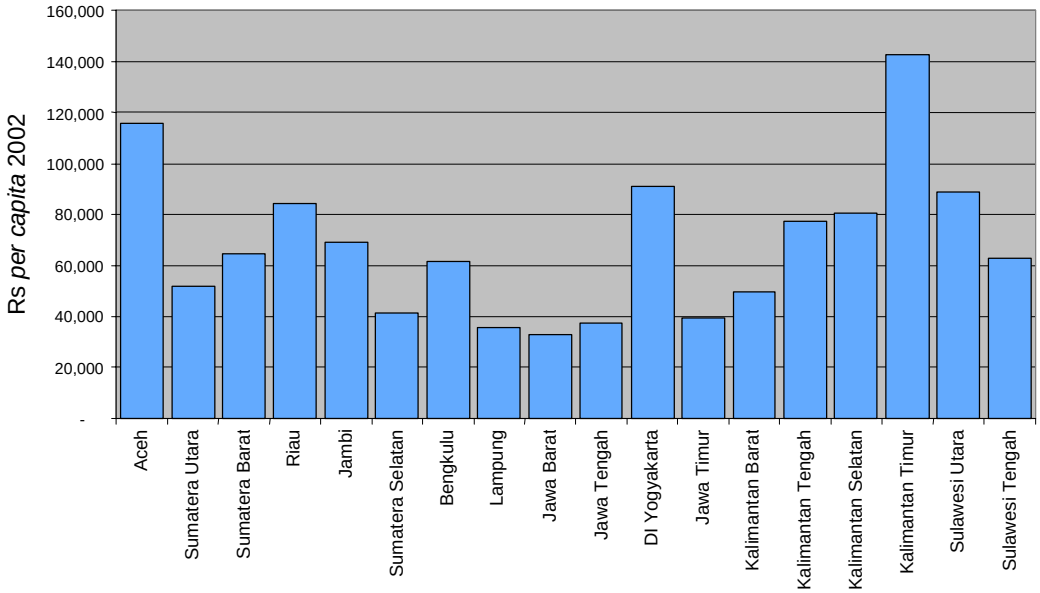


Source: Equitap project

The evidence from India also clearly shows that investment in primary and preventive healthcare is not only more cost effective but is also more pro-poor. It does show, however, that public subsidies tend to be more pro-poor in urban areas than in rural areas – as the better off have more opportunity to access the private sector in urban settings, so they make less use of public services. Within India there is a huge diversity between states in how equitable the public health system is (see Annex Table A5).

In addition to differences in access to services between socioeconomic groups, there is great variation in the allocation of health resources between regions and districts. While some of this can be explained by the location of national referral hospitals, there is still great variation in the allocation of funding for health. Health needs do vary between districts or states, but it is not clear that the allocation reflects those needs. Figure 6 gives data on the district, provincial, regional and central government recurrent and development expenditures on health for selected provinces for Indonesia and shows the level of health spending *per capita* varies by a factor of more than four times. Similar results can be seen across districts in Bangladesh.[5] Recent analysis within West Bengal showed allocations for district based health services ranging from below 25 to over 60 Rupees (Rs) *per capita*.

Figure 6: *Per capita* health expenditure by province: selected Indonesian provinces, 2002

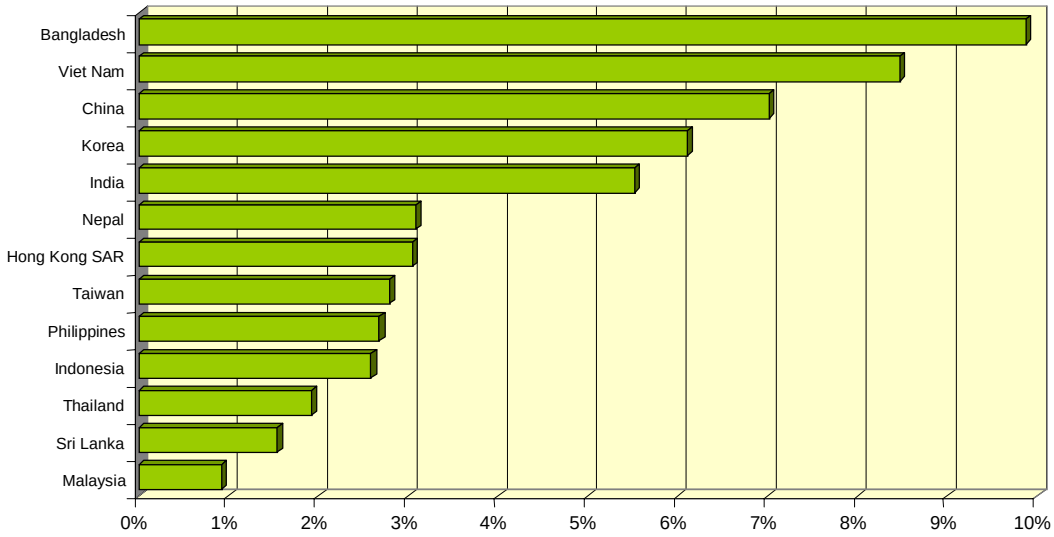


Finally there is the issue of whether *health spending is in itself causing poverty*. Ill health directly affects family income through inability to work, and this can be exacerbated by the costs of medical care. Payments may be fees for private services, formal or unofficial fees in public services, or co-payments under insurance.

The costs of medical care can be substantial relative to household income, as shown in Figure 7. Few families can afford to meet health costs out of income, especially the costs of expensive inpatient care. Typically, they resort to borrowing or emergency sales of assets, for example in urban India, sale of assets and use of savings funded more than half of medical care (see Annex Figure A5).

[5] Data presented in the 1999/2000 Public Expenditure review by the Health Economics Unit, Ministry of Health and Family Welfare showed a variation by a factor of 5 in *per capita* health spend between districts, excluding Dhaka.

Figure 7: Degree of financial protection: percentage of households with medical spending greater than 15% of household consumption



Incurring such costs may put families below the poverty line, or even worse, they may not get treatment and suffer the consequences, which might be fatal. Annex Figure A3 estimates the extent to which families are pushed into poverty by medical spending. Of the countries analysed, medical spending was a cause of poverty particularly in Bangladesh, India and China.[6] This picture is confirmed for China when the national health survey in 2003 found that 30 per cent of poor households said healthcare costs were the reasons they were in poverty. In the case of Korea, although people have to make significant contributions to their medical costs, few are thrown into poverty by this because *per capita* income is high and they are insured.

3. Approaches to the Health System in Asia

This section considers how health sectors are structured in the selected Asian countries, and identifies factors that are limiting greater access and impact on the health.

In common with countries throughout the world, the public sector plays a role in the health sector in Asian countries. This includes roles in financing, provision of services, setting policy and strategy, regulating pharmaceuticals and health promotion. This section focuses on the roles in service provision rather than financing, which is addressed in section 5. All the countries studied have public sector service delivery, including both primary level services such as outpatient clinics and referral services in hospitals. In addition, all countries have some private sector provision. In several countries in the region, private doctors and hospitals have grown in importance over recent decades; this is best documented for India. Non-profit organisations have set-up services for under-served populations. In addition, there are traditional or indigenous services which are used in all countries in the region.

6 Estimates for India in 1995/6 indicated that over 20 per cent of Indians who were hospitalised fell into poverty as a result of medical costs. The figures for Bihar and Uttar Pradesh were over 30 per cent. *Source*: World Bank – Raising the Sights based on National Sample Survey 52nd Round).

Part of the private sector that has grown in most if not all countries is sales of pharmaceutical drugs, which may be sold in pharmacies, shops and markets. For example in Bangladesh, over 45 per cent of total health spending was for purchase of over-the-counter drugs. While this allows for easy and cheap access to medicines, it raises concerns for the quality of treatment and has serious implications for drug resistance.[7] For example, in Vietnam, deregulation of pharmaceutical production and distribution led to expansion of drug shops. Use rose, with annual contacts increasing more than three-fold between 1993 and 1998. Two-thirds of health service contacts are with drug vendors, and survey data suggest that 93 per cent of these are without a prescription (Lieberman et al. 2004). Antibiotic resistance is high.

There are also problems of fake drugs that are ineffective or even harmful. For example, it has been reported that 40 per cent of artesunate drugs (for malaria) bought in South-east Asian markets contained no active ingredient.[8] In China, up to 50 per cent of the drugs checked in one study were fakes (World Bank 2005). There may also be sub-standard drugs, those that are not manufactured or stored properly. In addition to the health impact (people may die or be ill for longer due to lack of the drug they need), fear of fake or substandard drugs leads people to buy more expensive branded drugs rather than using cheaper generics (which is wasteful and they may still be fake drugs).

Sri Lanka and Malaysia have a public health service with a large network of public services, and have funded them to a standard that has maintained public confidence. In these countries, the private sector has grown to take up demand from the better off, offering more convenient and more pleasant outpatient care, but has not taken up a major role for inpatient provision. This means that the public sector services and resources are used by the poor for outpatient care, and by all groups for major health problems (Box 1). A similar picture emerges in Kerala.

Box 1: Malaysia – professional maternity services and reduced maternal mortality

Before the 1970s most Malaysian women delivered at home with untrained birth attendants, and maternal mortality rates were 320 per 100,000 (in 1957). By the mid-1980s, most births were at home, with 95 per cent attended by a trained midwife and maternal mortality had fallen to 43 per 100,000. This was achieved by:

- Training and posting midwives throughout the country
- Referral for women with complications to a hospital or maternity home
- Links between rural services and hospitals
- Strategies to reduce the role of traditional birth attendants
- Free services to enable everyone to benefit

Source: Koblinsky et al. 1999.

7 If people take the wrong medicines or inappropriate doses, this can build up resistance to drugs so the drugs do not work when they really need them.

8 Quoted in Seiter 2005: 25 per cent of drugs in developing countries are estimated to be counterfeit.

Other countries have an unbalanced mix of services. For example, in Nepal, 46 per cent of public health funding goes to tertiary hospitals, and the share of resources to urban services has more than doubled, although 85 per cent of the population is in rural areas.

Another characteristic of health services is who is using them. As discussed in section 2, the better off make higher use of services, which reflects both geographic access (the better off tend to be in urban areas where there is ready access to services) and ability to pay the costs of care. In contrast the poorest and most vulnerable groups include remote and tribal groups often live in places where there are few services, or doctors are unwilling to work, as well as difficulty affording fees and other costs of treatment.

Even in urban areas ability to pay is a constraint, for example in urban China, the National Health Surveys show a rising proportion of people who said they did not go into hospital, despite being referred, due to the costs. In 1993, 41 per cent said cost was the main barrier, and by 1998 this had risen to 63 per cent. This reflects the fall in numbers who have health insurance cover and the high cost of inpatient care relative to incomes.[9]

There may also be social factors inhibiting uptake, for example in the Taliban era in Afghanistan, women's use of health services declined radically. Elsewhere women have difficulty accessing money for healthcare. Status in the community can also affect uptake; as one Indian fisherwoman put it 'If you don't know anyone, you will be thrown to the corner of a hospital' (World Bank 1999)!

Thus the Asian countries under review all have a mix of services available; some run by government, some by non-profit organisations and some private providers. Yet, many people are not using health services and the health indicators (and MDGs) are off target. What is inhibiting higher coverage of services? Table 1 sets out some of the barriers and countries where this is seen as an issue.

Table 1: Barriers to scaling up access

Barrier	Countries where this is a major issue
Level of public funding too low to provide basic public health services	Cambodia, Nepal
Allocation of public funding skewed to tertiary hospitals and better off areas	China, Nepal, Vietnam
Shortage of qualified health workers	Nepal
Health workers unwilling to work in rural and poorer communities	All
Over-emphasis on role of doctors within health system leading to over-medical skill mix	Bangladesh, Pakistan, Nepal
Physical accessibility to services	Afghanistan, Nepal, Pakistan
Fragmented budgeting across states and national levels	India, Pakistan, China, Indonesia
Aid is a significant funding source for health but is not all well coordinated, may be short term or unpredictable	Afghanistan, Nepal, Cambodia, Bangladesh
Social and gender issues	Afghanistan, Nepal, Pakistan, India, Bangladesh
Quality or relevance of medical education	Indonesia, India

[9] An average inpatient stay cost 4000 Yuan in 2003; 43 per cent of the average income. *WB Briefing Note* 3, 2005.

4. Options for Scaling up Services

In order to reach the MDGs in health, health service coverage needs to improve. This will involve *more services, and better quality services*, to have the intended impact on health outcomes. At the same time, other investments in education, safe water, nutrition, sanitation and livelihoods are equally important in improving health outcomes.

The existing health services are a mix of public and private provision, public and private funding. Within these, there are all sorts of arrangements to attempt to improve access and quality by addressing the barriers and problems that face each country and by improving efficiency. Some of the main approaches are outlined below.

4.1. Increasing the Amount and Share of Public Funding for Health

This is a trend in most countries as income rises, as discussed above. Cambodia, Thailand and Indonesia have increased funding levels. However, the following are cases where the share has not been rising consistently in recent years: China, Bangladesh and Pakistan. Bangladesh has particularly low levels of public funding (around 1.0 per cent of GDP), even including donor funds. Pakistan has low levels of public funding for health and the PRSP recognises the importance of addressing this, with plans to double the resources for health over three years, alongside organisational and management changes to improve service efficiency. However, a recent review found that actual health and population expenditure has been consistently below target.[10]

More public spending can help but if health services are chronically under-funded, then substantial increases are needed before the increases start to show a real difference. There are often competing demands for pay and non-pay expenditures, and it is hard to get the balance right. Even in the UK where funding has increased by almost 30 per cent as a proportion of GDP over the past seven years, much of the increase has been absorbed by pay rises and the impact is taking time to show through in terms of reduced waiting times and better health outcomes. However, in a few places, it has been shown that increasing salary expenditures may have significant impacts on service delivery, most notably Cambodia. Thus increasing public funding is necessary, but not sufficient, to improve healthcare.

4.2. Re-allocate Resources towards more Cost Effective Services, Poorer Regions and Services that are used by the Poor

Several countries in the region have strategies to re-allocate resources in favour of those with less access to services and in favour of interventions that have most impact on health. This is not easy, as the demands for funding from hospitals are strong and often more visible and audible to decision makers. There has been some success in the region, for example, Bangladesh has increased the share of the health budget allocated to the Essential Services Package from 45 per cent to over 65 per cent in 4 years. The new strategic plan is to increase this to over 75 per cent.

[10] The review of Pakistan's health accounts found although the PRSP envisaged a sharp increase in health and population welfare expenditures (from 0.56 per cent in 2001/2 to 0.92 per cent of GDP in 2005/6) the actual spending reached only 82 per cent of the corresponding target in 2004/5. Shehzad and Johnson 2005.

In Thailand, there has been a shift of public funding and health workers in favour of rural services and provinces. In China, there has been a policy to provide additional funding to the poorer, Western provinces.

The international evidence indicates that it is not enough to have a system that aims to be universal; there is also a need to target specifically the groups who are missed out. This may be the poorest, tribal or ethnic groups, those in specific employment groups, slums or other vulnerable groups.

It is much easier to make this shift of resources in the context of a growing budget, than cutting the budgets of existing services. It may also require innovative mechanisms to make the shift happen, for example, to get competent health workers out in under-served areas, or to reach vulnerable groups.

4.3. Focus Public Funding on Hospitals to Protect Families from Heavy Costs due to Major Illness

This option has a different objective to the previous one. It recognises that it is major health events that cause poverty – most families can afford some basic outpatient care, but struggle to afford inpatient care. Therefore they either face heavy costs that require the sale of assets, or fail to access treatment for serious medical problems. This approach argues that most individuals can look after their own minor health problems, while public funds should subsidise access for major problems.

There is some evidence that people can pay for basic healthcare, see for example Annex Figures A6 and A7, which show that for outpatient care in rural India, people can generally pay from their income or savings, while for hospital care they are more likely to resort to borrowing or the sale of assets. This does not show how far people are not using services because of the costs – there is little data on this. There may be a strong case for targeted mechanisms to address the needs of the poorest families (see section 5.6).

Sri Lanka for example, has managed to maintain a network of hospitals that are widely accessed and used by all income groups. It has done this by using its hospital budget effectively by avoiding spending on high technology, and putting constant pressure on health workers to improve their productivity. Other countries have found their limited resources are spread too thinly across hospitals and outpatient services. Substantial amounts of funds go into hospitals but they offer limited service and are not heavily used. Or the hospitals are concentrated in better off and urban areas and are largely used by the better off.

This raises questions of how to prioritise resources between hospitals and other services and whether to cut down the number of hospitals, and how to improve efficiency of hospital services. Cambodia took a bold decision to restructure services so there were fewer hospitals, with a view to offering better resourced services, although implementing this has been difficult.

4.4. Work with the Private Sector to Expand the Volume and Accessibility of Services

Many Asian countries have introduced measures to build on private sector capacity in order to improve health service access and coverage. Key models for this are:

- Contracting out health service delivery (Cambodia, Afghanistan, Pakistan)
- Social marketing of commodities and social franchising of specific services (e.g. Greenstar in Pakistan; see Box 3)
- Delivery of specific services to groups that governments find hard to reach (e.g. funding NGOs to provide services for injecting drug users in Bangladesh; subsidies to non-state providers to enable them to treat poor patients in India; see Box 4).

Contracting out of services in Cambodia has been much written about elsewhere. The approach was introduced with ADB leadership and evaluated against alternative models for improving services. The evaluation showed that the combination of substantially more financial resources (2–300 per cent) and contracting out to well selected NGOs had improved quality and uptake of services in poor rural districts and reduced out of pocket spending by the poor. The approach was expanded to more areas in Cambodia. However, the evaluation and subsequent studies do not show conclusively the relative impact of contracting and additional resources, especially for salaries; Government policy makers have questioned whether the improvements under contacting are worth the greater costs (compared with increasing salaries within the public sector). A similar model has been introduced in Afghanistan on a national scale (Box 2).

Box 2: Contracting out services to NGOs in Afghanistan

In Afghanistan, the urgent need to re-introduce health services after the conflict was addressed by developing system of Performance based Partnership Agreements (PPAs) for delivery of an agreed Basic Package of Health Services in provinces. These currently relate to 34 of the provinces. Contracting to NGOs is supported by the World Bank in eight provinces, the EC in nine and USAID in 14 provinces. The MOH is managing service strengthening in another three provinces (with access to World Bank funds). By 2004, 43 per cent of the contracts were awarded to national NGOs.

This mechanism enabled rapid expansion of services and coverage, e.g. immunisation rates up to 70 per cent. Excluding management costs, the services are funded at about US$3.80–5.10 *per capita*. Management costs and the contracting approaches vary between the donors and it will be interesting to learn from these differences.

Source: Strong et al. 2005.

Social marketing programmes are in place in most countries in the region that include subsidised provision of commodities, typically contraceptives and increasingly also for condoms targeted to limit the spread of HIV and AIDS. These can be on a substantial scale and expand fairly rapidly to reach large numbers of people, although not necessarily the poorest populations. They are often funded from external donor sources and there are issues to be considered in designing programmes to avoid disrupting local producers and markets.

Social franchising typically involves services which require more quality assurance, and hence addresses both access and quality issues.

Box 3: The *Greenstar* Franchise Network, Pakistan

The *Greenstar* franchise is a network of more than 12,000 trained private health providers: male and female doctors in general practice, chemists and family health visitors. It was established by Social Marketing Pakistan, a local NGO founded by Population Services International (PSI) in 1991. Providers receive formal training, have access to subsidised products and services, and are promoted through the *Greenstar* logo. In return, they agree to charge prices affordable to the poor and to observe quality of care standards. Progress is monitored through training follow-up and mystery-client surveys. To help halt the spread of HIV/AIDS more then 300 *Greenstar* providers in areas of high-risk populations have been trained in syndromic management of sexually transmitted infections (STI); these providers also offer *Greenstar* branded pre-packaged STI treatment kits. As of May 2003, 16 *Greenstar* branded products and services are available through the franchise network.

In terms of impact on access by the poor, a 2001 evaluation found that the majority of the clients coming to *Greenstar* outlets were likely to be from low income groups. In 2002, *Greenstar* generated approximately 25 per cent of estimated contraceptive coverage among all Pakistanis.

Source: DFID HRC 2000.

Funding non-state providers to offer services to the poor involves a subsidy to enable providers to offer specific services to target groups such as treatment for the poor. It may be linked to vouchers provided to eligible families, or involve direct subventions from the state budget.

Box 4: Contracting with NGO hospitals in Gujarat

The Government of Gujarat provides grant-in-aid totalling around 250 million Rupees to 139 NGO institutions and hospitals – around one-fifth of its total spending on hospitals and dispensaries. These facilities are expected make available 30–40 per cent of their output free to poor patients. These facilities are generally thought to perform considerably better than Government facilities as:

- they have complete autonomy in recruitment, procuring of supplies and capital investment decisions
- the personnel are not transferable, so there is greater continuity and certainty in their positions. The work culture promotes greater productivity
- they can generate resources from various sources and have better planning systems to use these resources to improve quality.

Most of the facilities supported are in the better off regions and given charging polices the impact on equity is not known. Some studies elsewhere in India have indicated that it is often not the poor who receive the free treatment.

Source: Status of Autonomy in Public Hospitals of Gujarat, Bhat Indian Institute of Management, Ahmedabad, December 2000.

These mechanisms for working with the private sector show they can make a contribution both to increasing service availability and uptake. However, they are not generally on a large scale, so there is limited experience on the costs and skills involved in scaling up. The Afghanistan contracting experience and the social marketing experience are exceptions to this and show these types of approaches can be on a substantial scale, and have quick results, building on the flexibility and incentives of the private sector.

These approaches require a high degree of public sector management and regulatory capacity to coordinate and run the interventions. The strategies also require careful planning to fit within a

broader strategy for the sector. The skills and capacity in the public sector may not exist in poor countries when international technical assistance is not available. There are no known examples of poor country governments succeeding in implementing such projects without input from foreign technical assistance.

4.5. Measures to Improve Efficiency of Resource Use

A critical issue is how well the limited resources for health are used. Sections 4.2 and 4.3 addressed efficiency in allocation, e.g. between hospitals and primary services and between states/provinces. Another issue is the efficiency of resource use and management. Measures to improve this include:

- *buying supplies more cheaply*: a key tool for this is use of generic drugs
- *changing provider incentives and payment mechanisms* to encourage more appropriate care, so people are not given unnecessarily expensive drugs, tests or hospital admissions
- *decentralisation of management* to district or facility levels, so decisions are made locally with knowledge of local needs
- *involvement of communities* in management, to strengthen accountability
- *strengthening financial management systems* and audit to ensure funds go where they are intended and misuse can be detected
- *contracting out support services* (e.g. Karnataka; see Box 5)
- *rationalising or reorganising services*
- *changing roles of health workers* and other human resources reforms.

The health sector requires *procurement* of a much wider and more complex range of supplies than those needed for schools for example. New technologies (e.g. medicines, vaccines and equipment) frequently become available promising great benefits. Policies to be selective and procure efficiently will make a tremendous difference to the ability of health sector to deliver services. One easy win is in the use of generic drugs, i.e. those that are not branded. Using these brings huge savings, for example, generic products are one-half to one-quarter the price for AIDS drugs.[11] This is perfectly feasible: Sri Lanka uses 100 per cent generics in the public sector and 65 per cent in the private sector. Other ways of reducing prices include the use of compulsory licensing under TRIPS and global/shared procurement mechanisms (for example, the Global Drug Facility for TB, which has reduced the prices paid for TB drugs by about 30 per cent).

[11] MSF untangling the web of price reductions 2005. In addition, competition from generic producers is widely acknowledged to have brought down the price of AIDS drugs from US$10,000 to US$150 per year.

Box 5: Contracting out non-clinical hospital services to the private sector: Karnataka, India

The Karnataka Health Department has been contracting out a set of non-clinical services in 82 secondary level hospitals to test whether this approach would result in better maintenance of facilities in a cost-effective way. The pilot initiative began in 1997, as part of a World Bank-supported Karnataka Health Systems Development Project.

The services contracted include building cleaning and maintenance and waste management. The contracts were made after a competitive bidding process, with payments based on satisfactory performance. The experience has been generally encouraging to the Department of Health, which plans to expand the scheme. Overall, the contract payments have been less than salaries previously paid to staff to perform the same tasks.

An evaluation of the pilot scheme revealed that: *patients and hospital staff* reported that the level of cleanliness in the hospitals had improved and recommended continuation of the pilot scheme. *Performance* was most satisfactory for lower skilled and visible tasks such as maintenance of corridors, wards, toilets and for those that required less financial input such as minor repairs, replacements and maintaining exteriors. Performance was less satisfactory in areas requiring technical competence such as waste management, or larger financial inputs. The evaluation recommended strengthening capacity of hospital staff to supervise the work, as well as training to those working in more complex areas of waste management.

Experience from several countries indicates that the early phases of contracting often require work on teething problems, and that benefits tend to go up over time as the managers of contracts get more experienced. Another consistent finding is that the price of the contract needs to be sufficient to provide adequate services. If the price is too low, then service will never be adequate whether it is in-house or contracted out. This has been a problem with some of the catering services contracts at hospitals in other states in India, where food quality and quantity have been reported to be worse after contracting out.

Source: World Bank 1999.

Changing roles of health workers: all countries in the region (in common with other regions of the world) face problems of health worker distribution. The more highly qualified, especially doctors, tend to want to stay in urban and better off areas with access to better schools and living conditions and scope for private practice. Countries have tried different ways to get trained health workers to work in areas where the poor live, with initiatives such as hardship allowances for remote postings, permitting private practice (e.g. Sri Lanka, Malaysia and Indonesia) and making rural postings as pre-requisites for promotion, mostly with limited success.

Another option is to *change roles so that less well qualified staff take on duties that were previously reserved for doctors*, for example in Nepal, nurses and assistant nurse midwives have been trained to provide basic emergency obstetric care, post abortion care and anaesthesia. This has been shown to be successful, enabling them to provide life-saving services in remote areas where there is no doctor, and support doctors in surgical obstetrics (Basnet et al. 2004). Another approach is to train community members, as was done with the ‘Lady Health Workers’ in Pakistan (Box 6).

These types of initiative can play a key role in improving health by providing relatively simple services. They may be politically challenging to introduce, due to resistance from the established professions to allowing less-qualified staff to take on ‘their’ roles, but experience has shown that it works well, but needs ongoing supervision and quality assurance.

Box 6: Pakistan; the Lady Health Workers

This programme delivers primary level care 'at the doorstep' through a community based approach. Lady Health Workers (LHWs) have a minimum of eight years of education and are residents of the community they serve. They undergo 15 months of training. They serve approximately 1,000 individuals, delivering a range of services door-to-door related to maternal and child health, including immunisation promotion, family planning and health education. They treat minor ailments and injuries, and are trained to identify and refer more serious cases.

The programme has been shown to achieve increased use of family planning and early results suggest they can contribute to lower neonatal mortality. The plan is to scale up the programme with funding from the World Bank.

Sources: Douthwaite and Ward 2005; Memon et al. 2004

4.6. Tackling Fake and Sub-standard Drugs and Inappropriate Use of Drugs

Widespread purchasing of drugs from shops and markets has enabled greater access to medical services, but raises issues for quality. Quality is also an issue in parts of the public sector. Governments have various ways to protect the public from fake and sub-standard drugs, including:[12]

- Strengthening legislation of the pharmaceutical sector
- Improved regulation of manufacturers to meet good manufacturing standards
- Procurement from established sources
- Testing medicines that have been procured
- Improving logistics to assist with tracking and shorter distribution chains; for example, asking manufacturers to deliver direct to district or regional stores
- Licensing of drug distributors and enforcing licence conditions
- Inspection and testing at retail level
- Legal enforcement when problems are identified
- Educating the public on the risks of counterfeit drugs.

This is not an easy task, especially when there are such strong financial incentives for those involved in avoiding regulations. Political commitment to address the issue is key. A complementary strategy is to educate consumers and providers on appropriate use of drugs, appropriate treatments and charges etc. to avoid them wasting money on useless treatment, to avoid drug resistance and enable them to challenge providers.

[12] Based on Seiter 2005.

4.7. Better Coordination of Aid Funds

Four of the countries reviewed have high aid dependence in health: Afghanistan (43 per cent of public health spend comes from external sources); Bangladesh (14 per cent) and Nepal (9 per cent). Cambodia is also high (recently estimated around 50 per cent) for health and higher than others (apart from Afghanistan) in overall aid dependence. With such a large share of health funding from aid, its effective use is critical. If aid is to increase, as promised by the G8, then the coordination becomes more important, to avoid duplication of efforts, and ensure national priorities and strategies are implemented rather than the whims and preferences of the donors.

Bangladesh, Cambodia and most recently Nepal have introduced mechanisms to improve the way that aid is managed in health to encourage coherent support to the national strategy:

- Bangladesh introduced sector-wide management in 1999, based on the Health and Population Sector Plan. All of the health donors supported this both through earmarked support and pooled funding. A second sector plan started implementation in 2005 with more of the donors joining the pool funding arrangement
- Cambodia developed a sector strategy and has encouraged partners to follow this
- Nepal is in the second year of implementing its Health Sector Programme based on a sector-wide approach. This includes an agreed programme, shared programme performance indicators and policy reform milestones, and joint annual review of progress. Two external funders provide funds directly to Government to support the programme.[13]

While it is difficult to measure the impact of these arrangements, the international community has recognised their value in enabling a country led approach and harmonised support.[14] These sector-wide mechanisms are particularly relevant where there are many donors supporting the country, and where aid makes up a significant part of health expenditure. If aid flows scale up to a more substantial level in other low income countries they may want to learn from this experience.

There are also moves to harmonise aid above the sector level, for example in Bangladesh, the JICA, DFID and World Bank have developed a joint country assistance strategy with the Government. Countries where aid is less significant or comes only from a few donors have less interest and need for such mechanisms; rather they need to consider what is the best use strategically of the external support.

[13] In 2004/5, World Bank and DFID funded 15 per cent of the health programme through the Government budget.
[14] Paris declaration on Harmonisation and Alignment.

4.8. Demand Side Approaches

The last type of mechanism where countries in Asia have tried to improve performance of their health sector are those known as demand side approaches – where the intervention aims to stimulate the demand in terms of the community's uptake of services and health-related behaviour, rather than the supply side of hospitals and doctors. Examples include:

- Educating the public on what to expect from medical services (e.g. publicising fee levels to deter unofficial charges)
- Vouchers to give users access to services
- Cash transfers that are conditional on particular behaviour.

Vouchers have so far only been used on a limited scale anywhere. They have been able to achieve uptake and demonstrate improved health outcomes, although at a significant cost overall. They are suitable where the eligible can be readily identified, and where there is capacity to assure quality and to manage the reimbursement required. The Kolkata scheme (Box 7) shows such schemes working in health.

Box 7: Vouchers for reproductive and child health (RCH) care in Kolkata, India

This programme started in September 1999 in four very low income areas of Kolkata. It is managed by a local NGO called the CINI-ASHA, and financed initially by the Gates Foundation. The CINI trained Community Health Volunteers (CHVs) who distributed vouchers to beneficiaries requiring medical care. This entitles them to two visits (initial plus follow-up) to a private physician, for a range of reproductive and child health services. CINI established the referral network of 29 qualified private physicians who work near the slums. The voucher reimbursed fee, agreed with the doctors, is 15 Rupees for two visits, compared with the normal fees of 50–70 Rupees per visit. Doctors felt that there is value to participating in such a system, both to 'do good for the poor', and because their patient volume increased. On average, 50 vouchers are reimbursed per physician each month. Doctors use standard management protocols for common ailments and prescribe generic drugs from the essential drug list. Patients collect the prescription for free from a government health post in the slum community. Doctors can prescribe other drugs with the consent of the patient, who must pay for them. The result of the programme of CHVs and access to medical care was an increase in institutional deliveries (from 67–83 per cent) and in contraceptive use. However, the programme remains dependent on external funding.

Source: DFID HRC 2000; Policy Reforms Options database 2005.

Bangladesh is introducing a voucher programme to increase demand for maternal and neonatal health services. Pregnant women will be given vouchers to purchase antenatal, normal delivery and postnatal services and referral for emergency care for the first and second pregnancy. The providers would be reimbursed for their services from a special fund when they present the vouchers.

In Mongolia, mothers receive a cash benefit if they deliver their child in hospital. Nepal has started a scheme that offers cash payments (including transport costs) to both mothers and the skilled birth attendant involved, and a payment to the hospital if the birth is in hospital. The scheme favours the poor by giving larger payments to people from poor regions.

4.9. Conclusions on Options for Scaling up Service Delivery

This section has looked at some of the mechanism countries are using to scale up service delivery. It shows that there are many different ways to tackle this, and it is likely that countries will want to adopt a mix of tools/mechanisms that suit their circumstances.

Overall, there are three broad strategies that a country can consider to scale up in terms of coverage and quality:

1. Expansion of public provision – work towards building the public health system as the major provider especially for inpatient care, with the private sector as a back up and source of care for the better off. This characterises the Malaysia and Sri Lanka models.

2. Build on the 'mixed economy' that already exists in the low income countries. Take a strategic view on who does what well and build on the strengths of different types of providers. Deploy a combination of mechanisms to expand and assure quality services. Thailand for example has encouraged a multiplicity of providers and mechanisms. This still requires public sector involvement and financing.

3. Shift to a model where public financing remains important but the non-state sector takes the lead in service delivery. This would be a radical shift with the public sector retaining roles in policy, regulation, quality assurance and financing, but leaving private providers to deliver services. Currently Afghanistan is the closest to this model, with a predominance of NGO service delivery funded with public funds alongside a growing private sector. The Government of Afghanistan may not have decided this is a long-term model for service delivery, but it could be.

There is continuing debate on the case for expanding public services for all versus targeting public resources to the most needy. Mehrotra and Jolly (2000) reviewed some of the successful development experiences and concluded that successful countries tended to focus on universal services rather than targeted ones, although the latter have been more in vogue as fiscal constraints have hit. The aim was to deliver adequate quality in the public sector and allow the better off to access a complementary, rather than predatory, private sector. This resulted in an adequate safety net and well-targeted public services. Other factors that were identified in successful cases included: socially responsive states, whether socialist or market based; and a shared vision about the importance of equity and a willingness to take action.

Wherever along the spectrum between these broad approaches is the vision for the country, there are some strategies that will help with scaling up in any country:

- Look ahead at changing demography and disease patterns to identify implications for services and how to build flexibility to respond to these changes

- Identify who is excluded from services and how to target them

- Address human resources issues including professional regulation, training curricula and roles
- Identify what role the country seeks for donor support and how to align the support to the national vision.

5. Options for Financing Health Service Expansion

The previous section focused on ways to scale up service provision and reviewed some of the options to achieve this. This section focuses on how to increase the financing available for services and how to manage financing.

Additional funding is required because many of the health resources are already tied up; whether it is the budget that is heavily committed to salaries, or infrastructure that is unfairly distributed between provinces and districts. While there is some scope for improving efficiency and re-allocating staff and budgets, and rationalisation of services, these are not simple to achieve within the public sector (Thailand has experience however of re-allocating staff and funds to rural districts, that may be useful to study). Additional funds allow for new services to be commissioned in underserved areas, and for expansion of mechanisms to target vulnerable groups.

Earlier in this paper, it was indicated that financing comes from a combination of private and public sources in all countries, with private funding the larger source (over 50 per cent) in 11 of the 13 countries reviewed. Only Malaysia and Thailand have less than 50 per cent of health spending from private sources.

This raises the question whether it is necessary to fund health from public sources; could Governments not leave it to private decisions (individuals and their employers) as for other service sectors? The justification for public sector finance in health is based on market failure and equity:

- The ‘externalities’ aspects of some public health activities – everyone benefits if more children are immunised, avian influenza is controlled, or fake drugs are removed from circulation
- People cannot afford the services they need but society is keen for them to have access to healthcare; at least basic care for the poor is seen as a right, and should contribute to economic growth
- Even the better off in society may not be able to afford major treatment and cannot tell in advance whether they will need it. Some kind of insurance to share risks is needed, but private health insurance does not handle the needs of people with chronic health problems or low incomes
- Lack of knowledge among consumers of medical problems and solutions mean people find it hard to judge whether advice they receive is correct (e.g. whether they really need the operation or tests that the doctor recommends). The public sector has a role in assuring quality and appropriate services are available.

Critical issues in health financing are how to increase financing for health (public and private) while addressing these issues. This means finding a combination of financing mechanisms that will:

- bring health benefits especially to those who are not currently receiving services at all or of acceptable quality (access to basic, cost effective services)
- protect people from unexpected heavy medical expenditures ('risk protection')
- encourage appropriate services, not unnecessary treatments (quality and cost control).

The following options are reviewed in the Asian context:

- Social Health Insurance
- Tax finance
- User fees and other out of pocket payments
- Medical savings accounts
- Aid funding: concessional loans and grants
- Specific mechanisms to target financing to benefit the poor and target groups.

In practice, countries use a mix of financing mechanisms and need to decide how to combine them and how they should evolve over time.

5.1. Social Health Insurance

All governments are keen to offer universal coverage – to pool risks and ensure that everyone in society has access to health services. Social health insurance (SHI) is one mechanism for this. It involves collecting funds for health on a standard basis, typically compulsory for those in employment, collected as a deduction from salary. Schemes may be voluntary for those who are self-employed. In order to reach universal coverage, governments may pay the contributions for those who are not employed or unable to contribute (e.g. the poorest) out of tax revenue.

SHI is effectively a hypothecated tax on employment, which has wider economic implications where countries are striving to raise employment levels. It may raise additional funds for health and provides protection for unexpected heavy medical expenditure, although there may be significant co-payments required from the insured person at the time of illness, as in Korea (Box 8). One analysis of insurance in China indicated that the urban insurance schemes actually increased the likelihood of heavy out of pocket spending, due to high co-payments and extensive treatment of the insured (Wagstaff and Lindelow 2005).

Box 8: Rapid development of universal health insurance: the experience of Korea

One of the most dramatic extensions of coverage is recorded in South Korea. After slow development of voluntary insurance following a law promulgated in 1963, cover, by 1977, had only extended to 8.8 per cent of the population (Peabody 1995). From 1977, compulsory insurance was gradually extended at first to large enterprises, through employment and area-based insurance societies. Later coverage was extended to civil servants (1978), smaller companies (from 1981), the self-employed (1981) and other rural workers. A separate scheme for the poor was also established based on strict eligibility criteria. By 1987, almost 60 per cent of the population was covered by one of the schemes and in 1989 health insurance was made compulsory for all long-term residents of the country.

Korea is an example of a system that has achieved good breadth of cover in a short period. An important factor in the dramatic growth was certainly rapid economic growth that averaged more than 10 per cent from 1970 to 1990. Significant co-payments are, however, an important feature of the system. Users contribute between 30 and 55 per cent of the cost of ambulatory care and 20 per cent of the cost of inpatient care. A monetary limit is also placed on the reimbursable cost of each 30-day period of illness. The substantial co-payments are partly the consequence of regional economic recession towards the end of the 1990s. They can also be traced back to the fee-for-service basis for remuneration with limited mechanisms to control costs.

Source: Background paper, DFID Health Insurance Workshop 2002.

Historically, Asian countries have been in the forefront after Europe, of achieving universal health insurance coverage. Japan and Korea were followed by Taiwan and most recently Thailand. Mongolia also has achieved close to 90 per cent coverage in very difficult circumstances of a *per capita* GDP less than US$350 and a population that is 25 per cent nomadic. China, The Philippines, Indonesia and Vietnam are currently aiming to achieve universal coverage but their prospects of achieving this in the next two decades are uncertain (Box 9).

Box 9: Mongolia – Social health insurance in a lower income context

Mongolia established SHI in order to address the problem of rising user fees reducing access, following the collapse of public sector financing with the withdrawal of Soviet subsidies after 1990. The employed were funded from deductions linked to salary, while Government provided cover for much of the non-employed population from tax revenue. Initially children, nomads, students and the poor were given cover funded from tax – this covered 70 per cent of the population. This resulted in high initial coverage, with 95 per cent of the population covered within two years. This level of tax funding has proved difficult to sustain; the categories subsidised from tax were reduced to 50 per cent, so that by 2003, some 78 per cent of the population was insured. There has been rapid cost escalation and rapid growth of private clinics and hospitals. This is a bold attempt to promote equity in access to health care through a unified system for the employed and unemployed alike.

Source: Bayarsaikhan et al. 2005.

The design of SHI schemes, as with any insurance, is critical. If the scheme simply reimburses providers for the services they provide, this leads to over-provision with excessive treatments and charges, pushing up costs and undermining the viability of the scheme. Box 10 reports experience in the Philippines where costs rose but most of the extra spending went into hospital margins rather than increased service delivery. Many of the Asian schemes face issues of escalating costs for treatment. Various mechanisms can be built in to reduce these pressures and are critical to success of health insurance schemes.

Box 10: Who benefits from SHI? Evidence from the Philippines

Established in 1972, the Philippine Medicare system covers one-third of the population (those formally employed) for inpatient care, free at the point of delivery at either private or public facilities up to a financial ceiling. Among other reasons, Medicare was introduced in order to shift the burden of financing and delivering care from the public to the private sector.

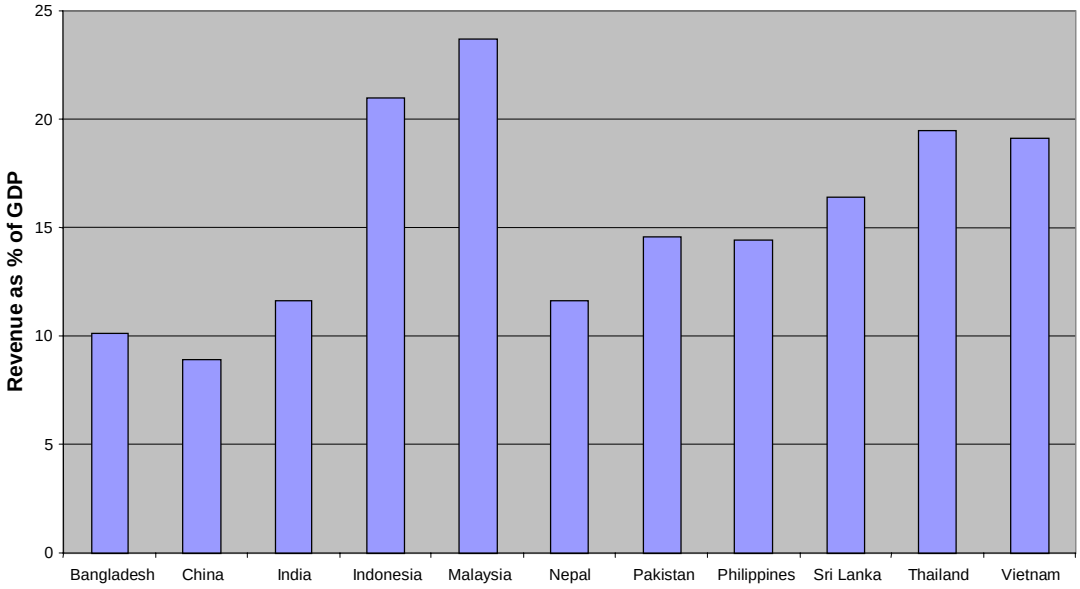
A study looked at who benefits from the system. This found that hospitals extracted 84 per cent of Medicare expenditures through increased margins; only the remaining 16 per cent financed increased patient care.

Source: DFID HRC 2000.

5.2. Tax Funding

Tax funding is another potential source of increased funding for health, although health competes with demands from other sectors. In Asia, the tax take is low in some cases compared with regional and global figures, so arguably there is scope for more tax to be raised. Figure 8 shows that Nepal, Cambodia, Bangladesh, India and China all achieve less than 12 per cent of the GDP; although donor support makes a significant contribution in the first two of these.

Figure 8: Domestic capacity to finance healthcare



Source: World Development Indicators, latest data; year may vary by country. Revenue figures exclude grants.

The allocation to health will depend in part on other commitments: to debt repayments for example, (which are relatively high in Indonesia and the Philippines) and the demands from other sectors.

Introducing a hypothecated tax can help ensure more funding is allocated to health, and may also be an acceptable way to raise taxes. Examples include India's education-cess[15] and Thailand's allocation of 2 per cent of the tax revenue from alcohol and tobacco for health promotion activities. However, such taxes will not necessarily increase the health budget correspondingly (as the

[15] A 'cess' is a one-off hypothecated tax that is levied on all tax payers to pay for a specific programme.

allocation from general taxation may be reduced). And they are not generally popular with Finance Ministries and economists as they reduce budget flexibility.

Box 11: Increasing fiscal space for spending on the social sectors

The issue of increasing fiscal space to support the scale up of essential health interventions has been extensively debated in international fora – notably the High Level Forum on the Health MDGs. In broad terms, fiscal space reflects Government ability to increase spending on its priorities in a sustainable fashion. It can be increased by:

- greater domestic revenue mobilisation
- re-prioritisation of existing spending
- increased aid
- borrowing
- printing money.

The first three are the top priorities for most countries in the region as strong growth and efforts to improve tax administration offer the potential to increase the revenue base. There is scope for increased aid, though most additional aid funds are likely to go to Africa and some countries in the region wish to reduce aid dependency. There may be limited scope for borrowing. Printing money is usually counterproductive.

The equity effects of funding from taxation depends on who pays the tax – how regressive is revenue raising and who benefits – as well as the benefit incidence issue raised earlier in the paper. In general, for almost all Asian developing countries, tax financing has been found to be the most progressive financing mechanism, universally imposing a bigger proportionate burden on the rich than the poor. This is even the case in the lower income countries which rely substantially on indirect sales taxes and not on direct income taxes.[16]

In principle, tax financing offers both protection from risks of high medical costs and a way to fund access for the poor. The incentive effects on health system performance depend on how public funds are distributed – a classic public sector health service does not give providers incentives to over-treat nor to operate efficiently; but performance related funding arrangements with public or private providers can be designed to address these objectives.

5.3. User Fees and other Out of Pocket Payments

Fees and payments for drugs are the main form of private health expenditure in all the countries studied. This reflects high use of private services including drug shops; rather than extensive user fees in the public sector. Some countries also have unofficial charging in the public sector.

User fees and related costs for services (e.g. paying for drugs or tests) have been shown to deter use by the poor. They also tend to raise a small proportion of the running costs of services in the public sector. They do not offer a good source for substantial expansion, especially of inpatient services. The willingness of the better off to pay for services can help to ensure that public funding is targeted to those who need it most. However, even the middle class cannot afford high cost of treatment for serious medical problems and seek protection for this.

16 See tax incidence and health financing incidence estimates produced by the Equitap project.

5.4. Medical Savings Accounts

Medical Savings Accounts were developed in Singapore as a mechanism to fund healthcare and protect against high treatment costs. The mechanism sets aside money into an individual account that builds up over time and can be used when the person needs medical treatment. The person is insuring themselves over time rather than pooling risk with others as in other forms of health insurance. This mechanism is built into the design of urban health insurance in China. Reviews of Singapore's experience (Box 12) however, suggest that this mechanism has limited value in terms of financing health or risk protection.

Box 12: Are medical savings accounts the answer? Singapore's experience

Medical savings accounts (MSA) give individuals incentive to save money to be used to pay for future health costs. Singapore's '3M' health financing system combines MSAs with supplementary programmes to protect against catastrophic ill health and to incorporate the poor:

- *Medisave*: Under Medisave, each employee contributes 6–8 per cent of monthly salary (depending on age) to an individual MSA, with a matching contribution by the employer. This can be used to pay for hospital expenses
- *Medishield*: a supplementary scheme to cover the costs of catastrophic ill health
- *Medifund*: covers the 10 per cent of the population who are poor.

MSAs have proved to be popular. However, despite universal coverage, MSAs only account for about 8 per cent of total health spend as they are mainly for inpatient spending and there are limits on spending. They are thus not a major source of financing for health. Furthermore, they have not been shown to have the intended effects of helping to control costs: Maynard and Dixon (2002) argue that: 'Singapore's health care system has no price competition. The care delivered is characterised by very high technology, and this "quality" competition has inflated costs. Medical savings accounts and related demand side financing methods have not constrained supplier-induced demand. Indeed, these methods have fuelled price inflation'.

Source: Maynard and Dixon 2002; Hanvoravongchai 2002

5.5. Aid Funding

Aid flows are another source and the amount available is expected to rise, following the G8 commitments in 2005. However, it is not clear how much will come to Asian countries.

Aid flows offer benefits but also risks: they bring opportunities in terms of access to expertise and clearly identified resources for the sector that may make up for shortfalls in budgeted funds. On the other hand, the level and timing of flows is not predictable between and sometimes within years; it may only be short term (few commitments last more than five years); there may be high transactions costs in terms of planning and reviewing projects; and it typically carries strings in terms of how the aid should be used.

The previous section recommended the coordination of aid in line with national health strategy in countries receiving extensive support from multiple donors, which can help address some of these issues. There are examples where some of the other drawbacks of aid have been addressed:

- In Bangladesh, DFID commitments were made for a six-year period, reducing the lack of predictability

- In Nepal the health donors have agreed to shared monitoring indicators and review of performance
- OECD donors have committed to continue untying their aid
- The GAVI Alliance has agreed that its funding for immunisation will be provided in line with country planning cycles and fiscal years.

Table 2 summarises the attributes of the different funding sources, against the objectives for financing

Table 2: The attributes of the different funding sources, against the objectives for financing

Option for financing	Protection against risk of heavy costs	Cover the poor and unserved	Encourage efficient and appropriate services
SHI	Yes, but less so if high co-payments and over-treatment	Requires extra funding from tax to pay for their cover	Depends on design – risks of over-treatment and high costs. Cost control requires global budget setting
Tax funding	Yes, if user charges limited	Yes if allocated well	Depends on funding mechanisms; less cost pressure than SHI
Fees and other charges	No protection, barrier to use	No – inhibit access	Providers have incentives to over-treat, though limited by patient's ability to pay
Medical savings accounts	Some protection but need additional risk protection	No – unless tax funded	Depends on design – not in Singapore context nor in China schemes
External aid	Depends on use, e.g. whether helps fund hospitals	Yes, usually targeted to diseases of or services for the poor	Depends on how used; may encourage new technology or approaches
Private insurance	Yes, for those covered, but less so if high co-payments and over-treatment	Can undermine access for non-beneficiaries by attracting human and financial resources	Depends on design – risks of over- treatment and high costs

5.6. Mechanisms for Funding Access for the Poor

Asia has good experience of developing approaches to fund access for the poor, in addition to experience of several countries that have reached the poor using government funded health services, such as Sri Lanka and Malaysia. Some of these schemes for targeting particular groups are summarised in Table 3.

Key issues that face these schemes are:

- The difficulty in accurately identifying the poor households and disadvantaged groups is a major challenge – there seems to be good capacity for this in Vietnam and China
- Reliable funding for the schemes – which collapse if funding is not provided as promised, due to budget cuts for example
- Complexity and costs of administration – for example to check services have actually been delivered as reported; or for people to make claims
- Availability of services within reach of the targeted groups
- Political commitment to the scheme meeting its objectives.

Table 3: Scheme and summary of approach

Scheme	Summary of approach
Equity Funds – Cambodia	Equity funds compensate hospitals for exempting identified poor patients from charges (see Box 13)
Low income card and Universal coverage – Thailand	The previous system gave cards to low income families, elderly, disabled and children under 12 that entitled them to free services. This has since been replaced by the universal coverage scheme to increase equity in the system
Medical Financial Assistance – China	Identified poor families get a subsidy to involve in rural medical insurance; reduced fees for medical care and exemptions for selected services. Evaluation has shown MFA is well targeted to poorer households and those with health problems
Healthcare Funds for the Poor at provincial level – Vietnam	Central Government provides funds to provinces to finance free healthcare or insurance for the disadvantaged and poor
Self-employed Women's Association (SEWA) Social Security Scheme – India	Members can claim costs of hospitalisation, within limits. An evaluation indicated the poor are covered, but uptake of hospital treatment remains low
Vouchers for maternity care, child health and family planning – Indonesia	Poor pregnant women are given vouchers that entitle them to a standard package of services from midwives; midwives claim payment from the local authority. A review suggested increased uptake by the poor of reproductive health services

Box 13: Health equity funds in Cambodia: an effective way of protecting the poor?

Waiver and exemption approaches are often thought to be ineffective. This has typically been due to inability to identify the poor, inability to make the better off pay and also crucially because facilities have no incentives to give exemptions as they are financially penalised for doing so. Health Equity Funds have been piloted in Cambodia to address this last point, to compensate facilities for providing exemptions, by paying the costs of treating the poor.

A recent evaluation of four hospital-based Health Equity Funds in Cambodia suggests that they helped improve access for the poor. Utilisation of hospital services by the poorest increased; they accounted for between 7 and 52 per cent of total hospital use. Use by paying patients remained constant in the same period. Key success factors were the availability of donor funding, a clear separation of roles, appropriate identification techniques and the inclusion of some non-medical costs in the benefit package. Health Equity Funds appear to be an efficient social protection mechanism. Further research is needed to document the impact on the households' health-seeking behaviour and the extent of catastrophic healthcare expenditures and to assess whether it is possible to scale up such approaches.

Source: Noirhomme et al. 2005.

5.7. Conclusions on Options for Financing

The low income countries in Asia face a challenge to increase their financing for health in ways which enhance equity, protect families from financial hardship and encourage effective healthcare. The capacity to provide public funding (from tax revenue or social health insurance) is likely to increase as the country's economy grows. In the meantime, there are choices about how to allocate the limited funding available to meet the major objectives of:

- ensuring access to basic, cost effective services for those least able to pay for themselves
- risk protection for expensive medical care, to enable access to inpatient care without pushing families into financial disaster
- improving health system efficiency to get good value for public and private expenditure
- adequately funding public and preventive health measures which will not be funded by individuals, such as epidemic preparation and AIDS education.

Countries have prioritised expansion of primary care and district hospitals in their PRSPs, with the intention of getting basic or essential services out to the rural and underserved populations. At the same time, there are often significant countervailing political pressures to spend more on high profile, urban based facilities which do little to benefit the poor or address basic health problems, but provide some risk protection (that often mainly benefits the better off).

It is suggested that it would be helpful to look strategically at likely funding levels as the economy grows and develop a long-term view on how to develop the health financing arrangements. Such approaches should be incorporated into medium-term expenditure frameworks which can help re-orient funding towards priority needs over time. Then, the short-term measures can be designed to fit into the longer term view, for example, in drafting legislation for health insurance. The main options for financing seem to be comprehensive SHI with tax funding to cover the poor (Korea, Thailand and Mongolia model); a system largely public funded from taxation with private financing and private services catering to a share of the outpatient market (Sri Lanka, Malaysia); a mixed model with various mechanisms for financing and delivering services that together aim to enable universal access (Philippines).

In developing a strategy, it will be important to learn from experience in the region and elsewhere, for example in design of insurance, how to build in mechanisms to avoid cost escalation that is common with health insurance.

It will also be important to look at how public funds are allocated especially:

- *Geographic allocation*: some countries allocate based on where facilities are located, which tends to perpetuate inequalities. Some states and provinces have substantially more for health *per capita* – can this be justified?
- It is critical to fund the *public goods* in health, e.g. health education to inform people how to improve their health and measures to prevent spread of communicable diseases
- The *regulation and quality assurance* activities in both healthcare and pharmaceutical sectors are critical to protect the public and avoid wasteful expenditure; this should not take up a large share of the budget
- Also to consider *demographic trends* and hence how allocation needs to adapt to emerging future needs for services, such as urban migration, rising levels of non-communicable diseases or a fall in the birth rate.

6. Agenda for Action by Countries and Development Partners

This review has identified that there are diverse options available for scaling up health services that will contribute to reaching the MDGs. This will require a concomitant scaling up of funding and there are various options for this too.

6.1. Look Ahead at Financing Options and Prospects

Countries need to consider what resources they are likely to have available and how this financing picture is likely to change over the next decade. The review of financing options suggests that countries will be able to raise more from taxation or developing social health insurance. There is also potentially more from donors with the planned increases in aid but the amounts for individual countries in Asia are not clear. The discussion on service delivery also identified scope for increased efficiency, e.g. through procuring drug supplies more cheaply, and reducing the reliance on doctors within the health workforce.

Some countries are allocating a relatively low share of their budget to health. This reflects competing priorities but may also indicate that there is a case to be made for the importance of public funding in this sector. One possibility is to have a regional debate and commitment on the issue along the lines of that made by African leaders who committed to allocating at least 15 per cent of the budget to improving the health sector; however, it is unclear how much impact such a target has.

The previous section concluded that countries need to develop a medium- to long-term health financing strategy, and identify how the mix of financing sources will best work together to meet national objectives. In order to develop a credible financing strategy, it is important to have good data on current financing flows and trends. Most countries in Asia are developing National Health Accounts and there are moves to develop the regional initiative on this further. Development partners should support this regional initiative. In addition, development partners need to be more transparent about the funding prospects and predictable in their support, in line with their commitments to harmonisation and alignment with country priorities.

6.2. Review Plans for Scaling up to see How Best to Improve Coverage, Quality and Efficiency

Most countries already have plans and strategies for developing their sector including plans for scaling up services. If more funding is available, there may be a case for reviewing the plans. This includes learning from initiatives that are in place and working out how they can be scaled up to reach more people. Again there may be needs for better information through independent evaluations and surveys, to provide the evidence.

There is scope to improve efficiency and value for money in the health system – so that more health benefit is achieved from the resources available. This can include improving organisation and management of services; making better use of the private sector (such as expanding their role in TB treatment); strengthening accountability and governance arrangements to ensure resources are not misused. This can include strengthening accountability to the local population who are intended to benefit from the services, as well as accountability to those providing funding.

There are core national and state functions that need to be strengthened in many countries in order to improve the quality and safety of the services and drugs that people receive. This includes regulation and licensing functions, quality assurance and drug quality control. The World Health

Organisation has a particular role to play in strengthening these functions. The public sector also needs to fund preventive and public health measures that will improve and protect the public's health.

Government has a key role in planning and regulating the health workforce, and needs to be prepared to stand up to the professional groups where their interests are challenged. On the other hand, the professional bodies can play a very constructive role in strengthening professional standards.

6.3. Encourage the Population to Improve their Health Related Behaviour and Health Service Use

Changes on the 'demand side' of the health system are also critical. Informed consumers will be able to push for responsive and appropriate services. They need to know what is an effective treatment for TB; how to prevent HIV infection; the benefits of engaging a qualified midwife or going to hospital for childbirth; when they need to get to baby immunised; in what circumstances health services are meant to be free. And as the disease burden shifts to non-communicable diseases, lifestyle issues become increasingly important in maintaining health.

6.4. Regional and Global Action

At regional level, there is scope for more lesson learning and exchange of experience. This has traditionally been inhibited both by political relationships and by the division of Asia into sub-regions by organisations such as WHO and UNICEF. Asian countries and the agencies may want to look at how best to coordinate their collaboration and exchange in the field of health, for example, could ADB take more of a lead role?

At global level there are various areas for action that would benefit countries. This includes efforts to promote access to drugs, vaccines, contraceptives and other commodities at affordable prices for the low income countries; continued efforts to deal with effects of TRIPS; research and development to tackle health problems facing low income countries; and providing stable funding mechanisms and clarity on likely funding levels, so that countries can plan ahead and know how far they can rely on continuing support from, for example, the Global Fund to Fight AIDS, TB and Malaria.

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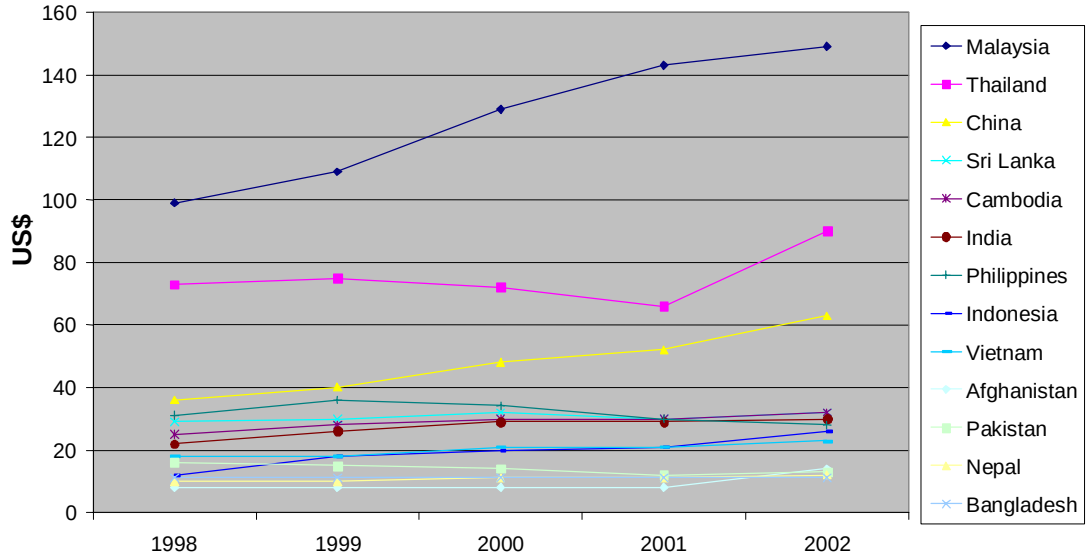
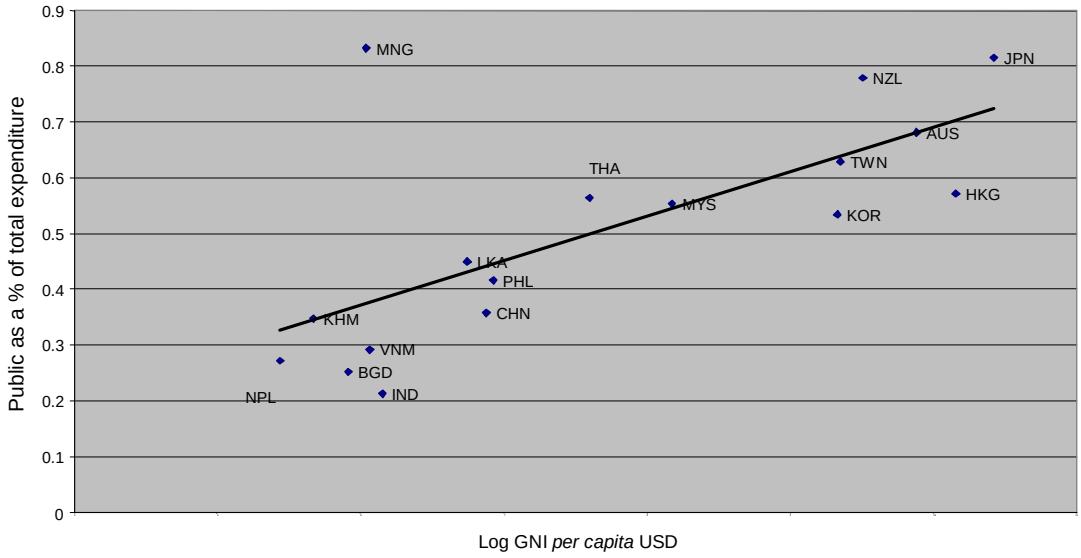
Annex 1

Figure A1: Total *per capita* expenditure on health 1998–2002



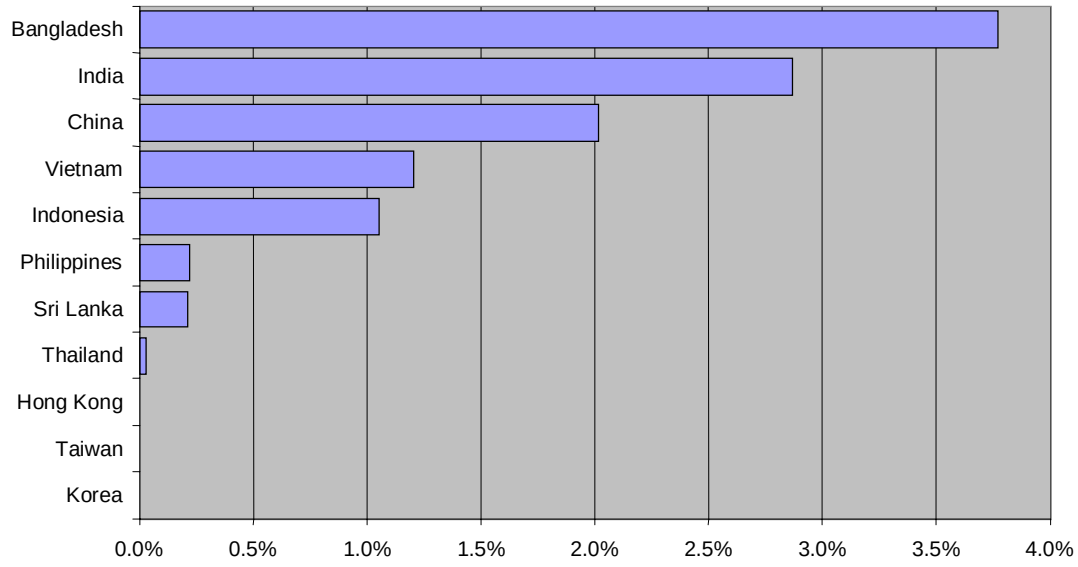
Source: WHO.

Figure A2: Relationship between public health expenditure and *per capita* income



Source: IHP-APNHAN analysis of national health accounts data. Key: AUS, Australia; BGD, Bangladesh; CHN, China; IND, India; HKG, Hong Kong; JPN, Japan; LKA, Sri Lanka; MNG, Mongolia; MYS, Malaysia; NPL, Nepal; NZL, New Zealand; PHL, Philippines; THA, Thailand; TWN, Taiwan; VNM, Vietnam.

Figure A3: Impact of health expenditure on poverty: percentage of households falling below PPP$1 poverty line after medical spending



Source: EQUITAP.

Figure A4: Availability of health infrastructure

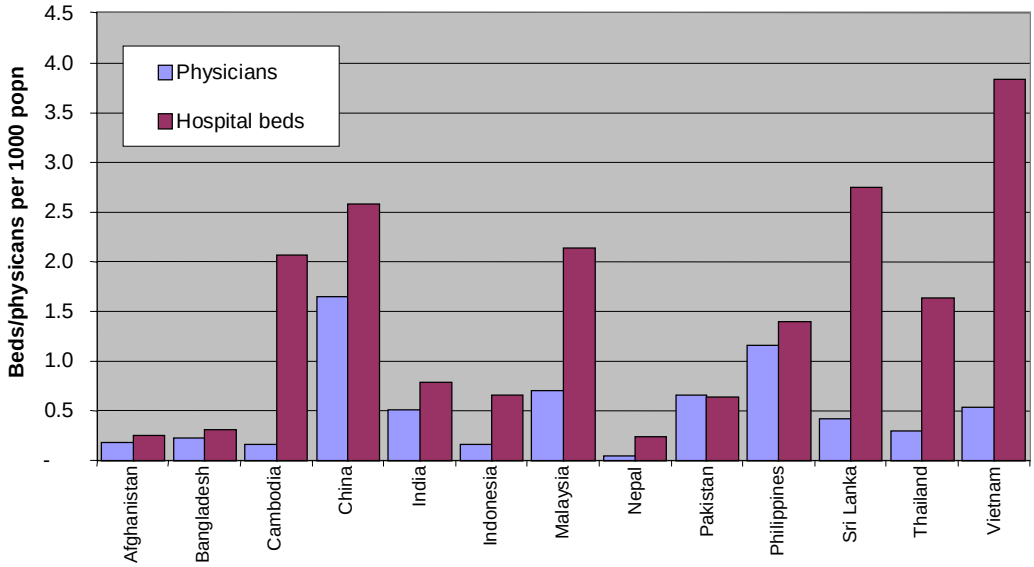
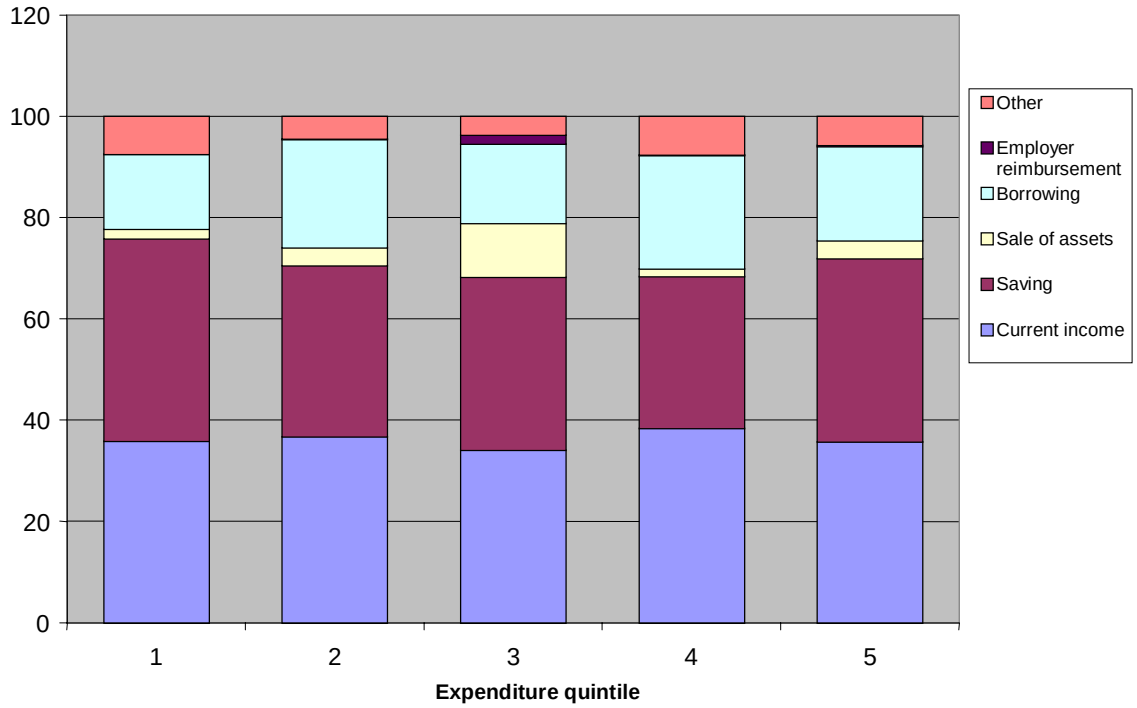


Figure A5: Financing of out patient care: rural India



Source: Analysis of National Sample Survey data 52nd Round.

Figure A6: Sources of financing hospital costs: rural India

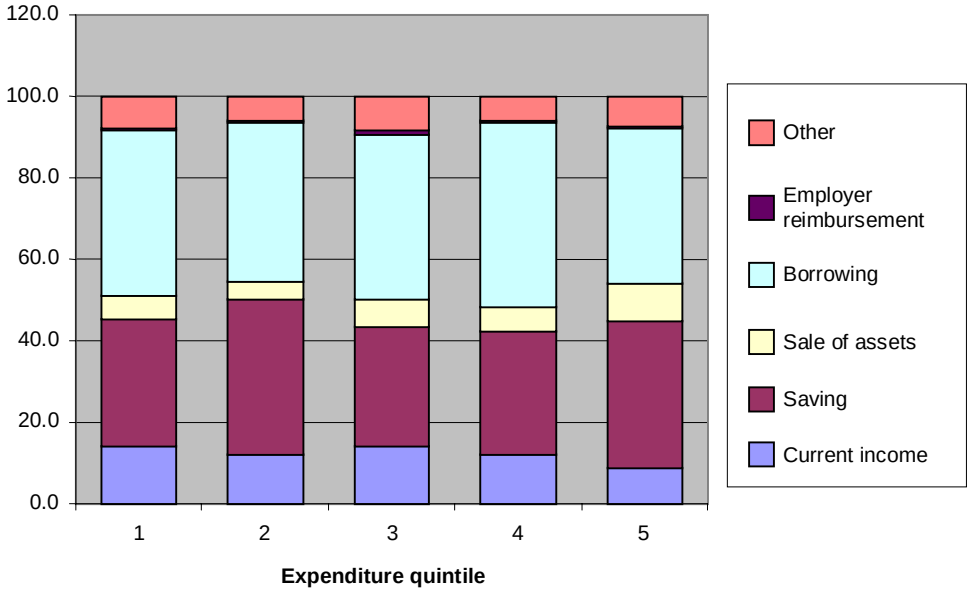
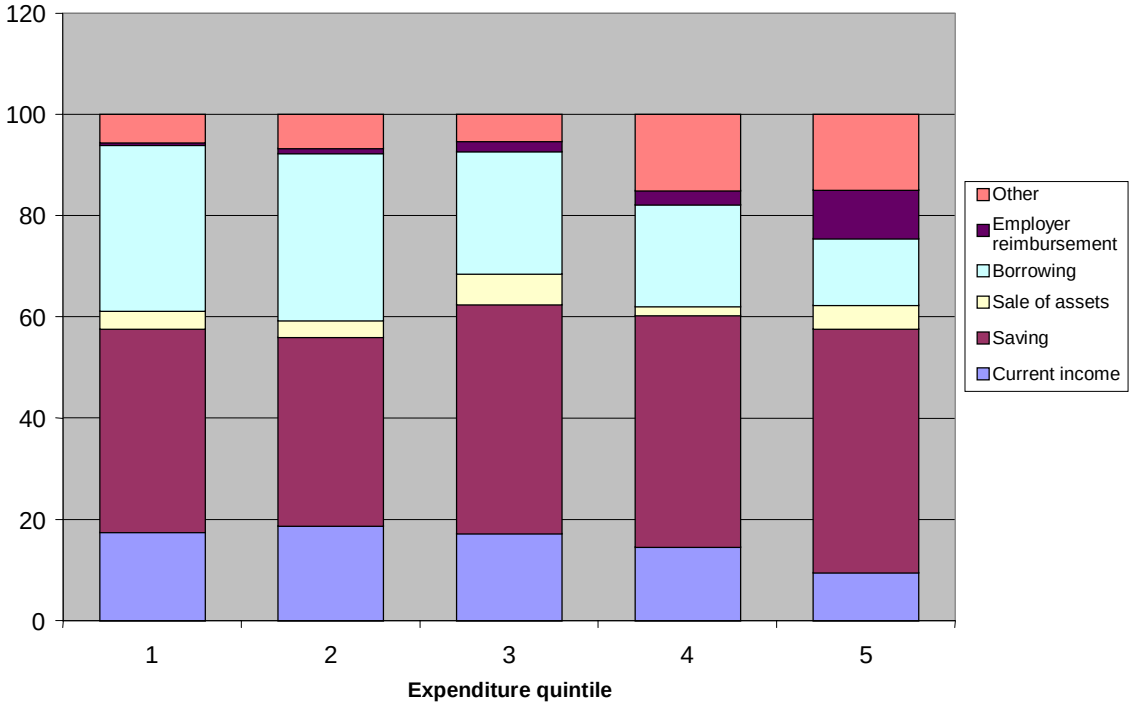


Figure A7: Source of financing hospitalisation costs: urban India



Source: Analysis of National Sample Survey data 52nd Round.

Table A1: Health indicators

	Infant mortality rate		Child (under 5) mortality rate		MMR	Life expectancy	Total fertility rate	HIV prevalence (% adults age 15–49)	Number of adults and children with HIV/AIDS
	1990	2004	1990	2004	(2003)	(2003)	(2003)		
Afghanistan	168	165	260	257	1,700	43	6.8	–	–
Bangladesh	100	56	149	77	380	62	2.9	–	–
Cambodia	80	97	115	141	450	54	3.9	2.6	170,000
China	38	26	49	31	56	71	1.9	0.1	840,000
India	84	62	123	85	540	63	2.9	0.9	5,100,000
Indonesia	60	30	91	38	230	67	2.4	0.1	110,000
Malaysia	16	10	22	12	41	73	2.8	0.4	52,000
Nepal	100	59	145	76	740	60	4.1	0.5	61,000
Pakistan	100	80	130	101	500	64	4.5	0.1	74,000
Philippines	41	26	62	34	200	70	3.2	0.1	9,000
Sri Lanka	26	12	32	14	92	74	2.0	0.1	3,500
Thailand	31	18	37	21	44	69	1.8	1.5	570,000
Vietnam	38	17	53	23	130	70	1.9	0.4	220,000

Sources: IMR and CMR from State of the World's Children, UNICEF, 2006; World Development Indicators 2005, UNAIDS.

Table A2: Health service indicators (%)

	Attended births	Measles immunisation	DPT3 immunisation	Contraceptive prevalence rate	DOTS detection	DOTS cure
Afghanistan	14	50	54	10.0	18	87
Bangladesh	14	77	85	53.8	33	84
Cambodia	32	65	69	23.8	60	92
China	97	84	90	87.0	43	93
India	43	67	70	47.0	47	87
Indonesia	68	72	70	60.0	33	86
Malaysia	97	92	96	55.0	69	76
Nepal	11	75	78	39.3	60	86
Pakistan	23	61	67	28.0	17	77
Philippines	60	80	79	49.0	68	88
Sri Lanka	97	99	99	70.0	70	81
Thailand	99	94	96	72.0	72	74
Vietnam	85	93	99	78.5	86	92

Note: DOTS, Directly observed treatment, short-course (for TB).

Source: WHR 05, Global TB Control Report 2005

Table A3: Health expenditure by country

Country	% of health spending that is public	% of health spending that is private	Health spending as % of GDP	*Per capita* spend (US$)
Afghanistan			8.0	14
Bangladesh(2001)	25	75	3.4	12
Cambodia (2004)	35	65	6.4	23
China (2002)	36	64	5.5	54
India (2002)	21	79	6.1	29
Indonesia (2002)	36	64	3.2	30
Malaysia (2002)	55	45	3.7	143
Nepal (2002)	27	73	5.2	12
Pakistan (2002)	35	65	3.2	16
Philippines (2002)	42	58	3.0	29
Sri Lanka (2002)	45	55	3.6	31
Thailand (2001)	56	44	3.1	63
Vietnam (2002)	29	71	5.2	23

Sources: BGD, CHN, KOR, MYS, NPL, PHL, LKA, THA – *APNHAN;* Cambodia – *Rannan-Eliya, 2006 in Report to DFID/Cambodia;* Rest – from WHR 2005.

Table A4: Aid dependence

	Aid dependence for health (Aid to health as % of public spend on health), 2002	Overall aid dependence (Aid as % of GNI)
Afghanistan	42.6	33.4
Bangladesh	13.5	2.5
Cambodia	4.9*	12.9
China	0.1	0.1
India	1.0	0.2
Indonesia	1.8	0.8
Malaysia	–	0.1
Nepal	9.0	8.0
Pakistan	1.8	1.3
Philippines	2.8	0.9
Sri Lanka	1.9	3.7
Thailand	0.2	– 0.7
Vietnam	1.8	4.5

Source: World Health Report 2005. *Note*: The figure for Cambodia for the previous 4 years averaged over 16%, and was 19.7% for 2001.

Table A5: Benefit Incidence in different Indian states – who benefits from public spending on health?

Rank	State	Ratio of subsidy to richest versus poorest quintile	Concentration index
1	Kerala	1.10	–0.041
2	Gujarat	1.14	0.001
3	Tamil Nadu	1.46	0.059
4	Maharashtra	1.21	0.060
5	Punjab	2.93	0.102
6	Andhra Pradesh	1.85	0.116
7	West Bengal	2.73	0.157
8	Haryana	2.98	0.201
9	Karnataka	3.58	0.208
	All India	3.28	0.214
10	Northeast	3.16	0.220
11	Orissa	4.87	0.282
12	Madhya Pradesh	4.16	0.292
13	Uttar Pradesh	4.09	0.304
14	Rajasthan	4.95	0.334
15	Bihar	10.30	0.419

Source: World Bank: Raising the Sights: Background paper 18. *Note*: negative concentration index denotes pro-poor, positive concentration index is pro-rich.

Annex 2: Assumptions Used in Estimating Future Public Funding Levels for Health

The estimates of the possible levels of public funding for health in future given in section 2 are based on the following assumptions

Region/country	Projected GDP *per capita* growth	Population growth – medium variant UN population division					
		2000–5	2005–10	2010–15	2015–20	2020–25	2025–30
E. Asia (all)	5.3	0.6	0.53	0.5	0.38	0.2	0.04
SC Asia (all)	4.2	1.63	1.53	1.41	1.26	1.09	0.92
SE Asia	5.3	1.38	1.23	1.07	0.91	0.78	0.66
W. Asia	4.2	2.09	1.89	1.76	1.59	1.44	1.28
China	5.3	0.65	0.58	0.56	0.44	0.24	0.07
India	4.2	2	1.4	1.26	1.11	0.93	0.75

Public expenditure is assumed to increase by 0.5% of GDP per annum. Public expenditure on health is assumed to increase by 0.5% as a percentage of public expenditure per annum.