



**Access of the Very Poor to Health Services in Asia:
Evidence on the role of health systems from Equitap**

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**MEETING THE HEALTH RELATED NEEDS OF THE VERY POOR
WORKSHOP**

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Abbreviations

HSRC – Health Systems Resource Centre, London

IMR – Infant Mortality Rate

LSMS – Livings Standards Measurement Survey

MDGs – Millennium Development Goals

MOH – Ministry of Health

WHO – World Health Organization

Key Words

Equity, risk protection, catastrophic illness, access, poverty.

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1. INTRODUCTION

The purpose of this paper is to brief the participants of the DFID Meeting the Health Needs of the Very Poorest Workshop on recent pertinent findings from the Equitap project, and other related evidence on the role of health systems in Asia in protecting the poor.

Equitap ("Equity in Asia-Pacific Health Systems") is a collaborative research project of 17 institutional partners from the UK, Europe and Asia, which has spent the past three years jointly assessing equity in the health systems of 16 Asian nations. Principally funded by a EU INCO-DEV research grant, it has received additional funding support from DFID, World Bank, WHO, UNDP, Rockefeller and Ford Foundations, and the Governments of Hong Kong SAR and Taiwan. Many of the approaches used by Equitap were originally developed by UK researchers (Adam Wagstaff, Julian Le Grande) in the ECuity project, a fifteen-year ongoing collaboration of European researchers examining equity in European health systems (van Doorslaer, 1993). The Equitap project has involved the application of standardised methods and tools for assessment of equity in all participating countries, to enable reliable comparison of health system performance. The countries covered by the project include Bangladesh, Nepal, India, Sri Lanka, Thailand, Viet Nam, Malaysia, Indonesia, Philippines, China, Kyrgyz, Mongolia, Hong Kong, Taiwan, Japan and Korea, and the dimensions of equity that have been examined include equity in payments, delivery of health services, protection against catastrophic impacts and health status (Figure 1).

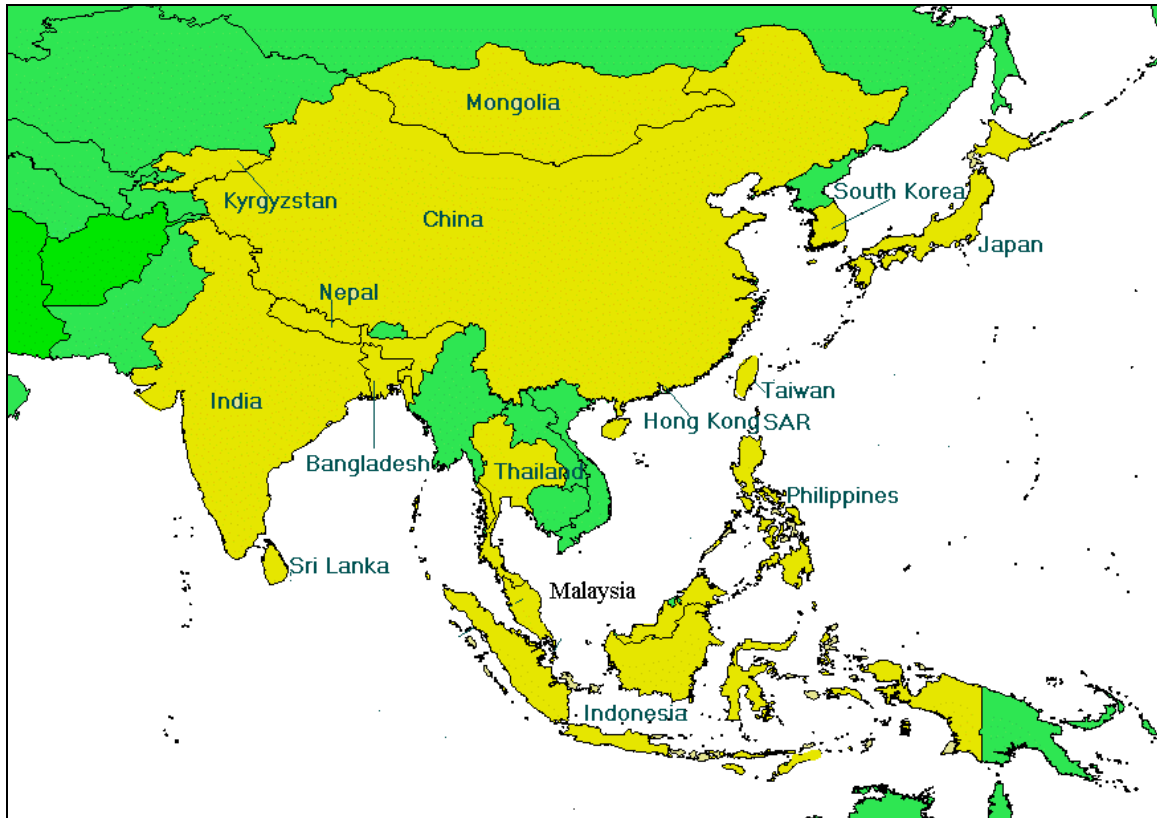
The work of the Equitap study represents the most comprehensive and systematic assessment to date of the available empirical evidence of health system equity performance in Asia. The findings of the project will be presented publicly for the first time to an audience of researchers and policy makers at a conference in Kandalama, Sri Lanka during 15-18 March 2005, to which all DFID workshop attendees are invited.

According to its original objectives, the goal of Equitap was to examine the equity performance of national health systems in Asia (and selected provinces or states in India and China). This has been motivated by the substantial evidence from the UK and Europe that it is overall health system design that determines the general ability of health systems to reach and protect the poor. As such, Equitap does not attempt to examine whether small-scale projects within countries reach the poor, but instead has focused on overall national performance. Whilst this approach thus lacks direct evidence on individual project performance, it does speak directly to what actually works at the aggregate national level, and to the extent that DFID's global agenda must impact ultimately at the level of national populations in order to be successful, it speaks directly to DFID's strategic goals.

At one level, the findings of the Equitap project concern how each individual health system performs on various dimensions of equity and protecting the poor. However, what emerges from the study is the existence of clear patterns of performance related to how health systems are organised and funded. The ability of countries to reach and protect the poor varies considerably not by level of economic development, or even levels of public spending, but by type of health system. Health systems with similar attributes perform similarly, even at different income levels, showing that failure to reach the poor is not an inevitable outcome of low levels of national income, but of how health services are organised and delivered.

This paper presents some highlights of the Equitap results, and then discusses their implications for health systems and pro-poor policy development.

Figure 1: Geographical coverage of the Equitap project



2. DIMENSIONS OF EQUITY RELEVANT TO THE VERY POOR

Economists, health services researchers, and others typically refer to a number of critical dimensions of equity in relation to health systems. Briefly, these can include access to services, overall receipt of services, who pays, who benefits from government services, health outcomes, and protection against financial risks. All of these were examined by the Equitap project, but the ones most relevant when considering DFID goals with respect to the very poorest are:

- (i) Equity of health outcomes – i.e., the extent to which the poor experience worse health outcomes than the non-poor, and whether they are able to achieve improvements in health outcomes consistent with the MDG health goals;
- (ii) Equity of access or use of services – i.e., the extent to which the very poorest can and do access effective medical services;
- (iii) Equity in the benefit from government health spending – i.e., the extent to which public spending for health actually reaches the poorest groups;
- (iv) Risk protection – the extent to which the poor are protected against the economic burdens of illness and associated treatment costs, and the extent to which both the poor and non-poor are protected against catastrophic illness-associated expenses sufficient to impoverish them.

Equity of health outcomes can matter for two different reasons: firstly, because it can be considered desirable in itself, and secondly, because achieving the health MDGs and also improving the welfare of the poorest requires improving the health in the poorest groups in particular (Gwatkin, 2000). Given this, equity of access to services and in actual use of services matter instrumentally to DFID's agenda, because access to and use of medical services is a necessary condition for achieving substantial improvements in health status. This point needs to be stressed, since a widely prevalent strand of conventional thinking regards medical intervention as not causative in health improvement. Although it is not the objective of this paper to review the evidence on this issue, it should be stated emphatically that (a) no low-income developing country population has been able to achieve good health outcomes without achieving high levels of access and use of medical services; and (b) there is considerable empirical evidence that medical services do produce health improvements, and are responsible for the bulk of health improvement in the developing world in the past fifty years.

Equity in health outcomes and in access to services are well-established concerns in most development frameworks. However, the concern with risk protection in the health sector has only relatively recently emerged in the forefront of the development agenda. Illness can impact households negatively in two ways – first, it can deprive families of their earnings or normal coping capabilities as either their breadwinners are too sick to work or as other family members are pulled away from normal responsibilities to tend to the sick; second, it can impose heavy financial costs if expensive or prolonged medical treatment is necessary. From a poverty alleviation perspective, both of these matter since they can contribute directly to impoverishment of the non-poor, as well as holding back the poor from rising above the poverty line. Despite the relative newness of this issue, it is not because this is a new policy issue or problem. In Europe, including the UK, the major concern of most health financing policy for the past century has in fact been with ensuring that citizens have adequate protection against the financial risks of serious illness. Elsewhere, in a few developing countries, risk protection has been the major concern also of health policy for many decades, in the case of Sri Lanka since the 1930s (Rannan-Eliya, 2001). More recently, it has become

a prominent issue in China in particular, where illness is now the leading cause of impoverishment in rural areas.

3. HEALTH AND HEALTH CARE INEQUALITIES IN ASIA

Defining the poor

The major activity in Equitap has involved using existing national survey data to disaggregate various measures of health and health service outcomes according to the relative income level of households in countries. For those requiring the technical details, the approach has been to rank all individuals in the population according to their per capita level of consumption, with an adjustment for economies of scale in household size. In certain cases (e.g., DHS surveys), where income or consumption data are not available, the number of assets owned by households have been used to derive their relative income level, using the now well-established and robust procedure of asset indices (Filmer and Pritchett, 2001).

For presentation purposes, the results presented in this paper generally present differentials according to income quintiles. The poor can then be taken as being those quintiles below some designated poverty line, which can be 20-80% of the population in most low-income countries (Bangladesh, India, Nepal, Sri Lanka, Viet Nam, China, Indonesia), or simply as the poorest quintile of individuals, or any other arbitrary sub-grouping. Of course, this method of presentation does not reveal much about the status of the poorest decile, but it should be noted that to all intents and purposes, the situation of the lowest quintile in most countries is a good approximation of the reality for the poorest decile.

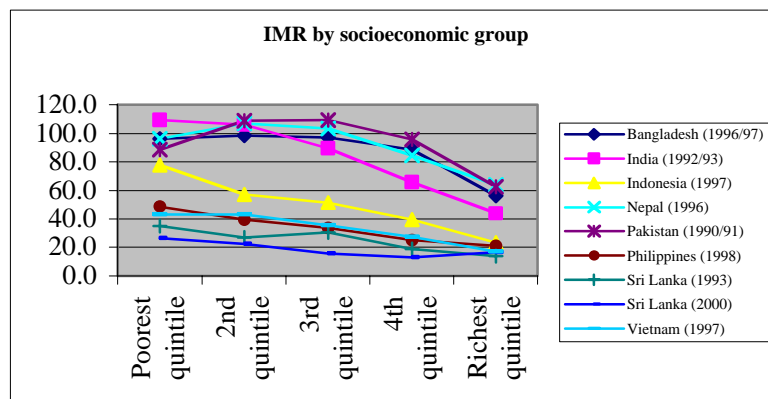
Health care outcomes

The best available measure of inequalities in health outcomes by rich and poor consists of the IMR data in the DHS surveys. Using asset indices, it is possible to disaggregate these by income level, as shown in Figure 2. Universally, mortality rates are highest in the poorest quintiles, with a clear relationship with income level. Typically, IMR in the poorest quintile is two to four times higher than in the richest quintile. Being poor is universally bad for your health. However, three features of this general pattern should be noted. First, is that there is much less variation across countries in the health status of the richest quintiles than for the poorest quintile. Mortality reducing knowledge and services reach the richest quintiles in all countries much faster than the poorer households. The big differences in overall mortality differences across countries are due to disparities in the health status of the average and poor households. Second, the health status of the poor is closely related to the overall health status of the population – the healthier the average person is in the country, the healthier the poor individual is. Third, inequalities in IMR are least for those countries with the worst (e.g., Pakistan, Nepal) and the best (e.g., Sri Lanka, Viet Nam) average health outcomes. As mortality rates fall, inequalities tend to increase, before decreasing again.

One can speculate the reasons for this pattern, which also happens to be consistent with the historical experience of UK where mortality differentials were originally pro-poor before becoming pro-rich, and why we do not see the lines for individual countries crossing each other in Figure 2. The most plausible explanation is that health outcomes of households are very much an outcome of health behaviours, and these behaviours are substantially dependent on prevailing social and cultural norms, reinforced by levels of access to services. For example, although maternal education is protective of infant health and plays some part in Sri Lanka's low IMRs, IMRs are low even for uneducated Sri Lankan mothers, largely because they have absorbed the

behaviours of the majority educated (Caldwell *et al.*, 1989). Although we might want to look at the poor in isolation, the reality is that improving health behaviours amongst the poorest requires improving health behaviours across all income levels. Poor-rich differentials are least in those countries with the best overall health outcomes, such as Sri Lanka, Viet Nam and Philippines.

Figure 2: IMR by quintiles for selected countries in Asia



Access to services

In virtually all countries, the poor have worse access to or use medical services less than the rich. In the UK and Europe, the poor use more medical services than the rich, but the problem is that their use is less when one controls for the increased need amongst the poor. In most developing Asian countries, the pro-rich inequalities are much greater – not only do the poor use less services controlling for need, but they almost always use less services overall. This matters because inequities in access to services is a critical factor behind observed inequalities in health outcomes. As can be seen in Figures 3 and 4, the countries with the greatest inequalities in health outcomes also have the greatest inequalities in use of services. It is also the case that the pro-rich inequities are least in countries that have the highest levels of service provision, underlining once again that the poor do the best in countries committed to strategies of universal provision, such as Sri Lanka, Viet Nam and Philippines.

Figure 3: Vaccination rates by quintiles in selected countries in Asia

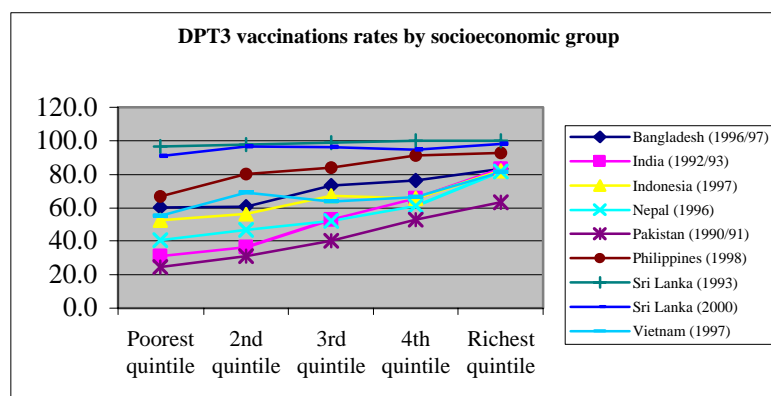
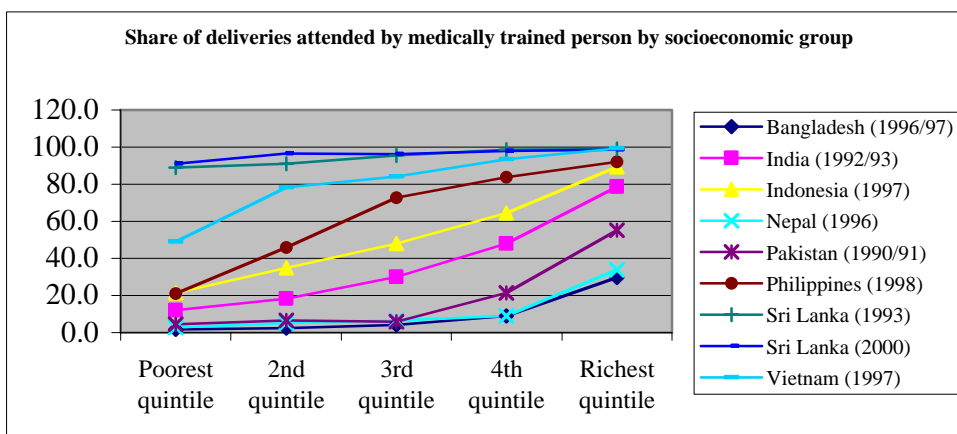


Figure 4: Professional attendance at delivery by quintiles in selected countries in Asia



Targeting of government spending on health

A key justification for government health spending is to ensure that the poor, who would otherwise be unable to afford to purchase services, have adequate access. For practical reasons, this has almost universally in low-income countries been done through direct public provision. The critical question then has been whether this direct public provision reaches the poor, and the well-known answer to this has been in most cases no. To a large extent, the distribution of government spending tracks that of overall utilisation of public services (Figures 5 and 6). In most countries, the poorest quintile benefits from less than 20% of total government spending. However, there are three exceptions: in Sri Lanka, Malaysia and Hong Kong, the poor do benefit more from government spending than the rich. What is particularly remarkable about this is that these three countries, ranging from low-income Sri Lanka to high-income Hong Kong, are the three countries in Asia which rely on tax-funding for their public sector, do not levy significant user charges in their public hospitals, and make no effort to explicitly target government services.

Figure 5: Targeting of public hospital inpatient spending in selected countries

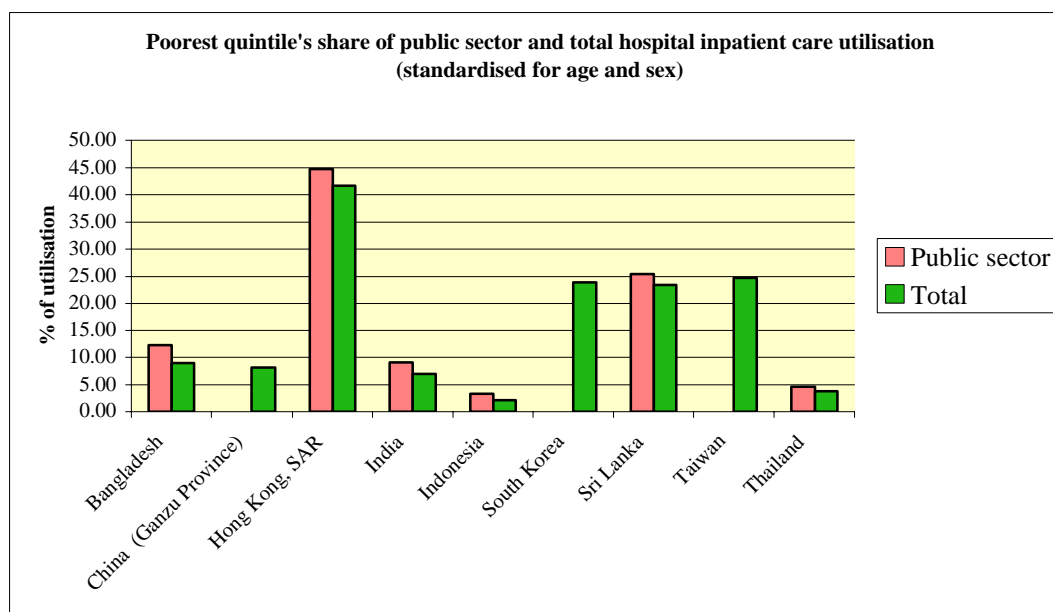
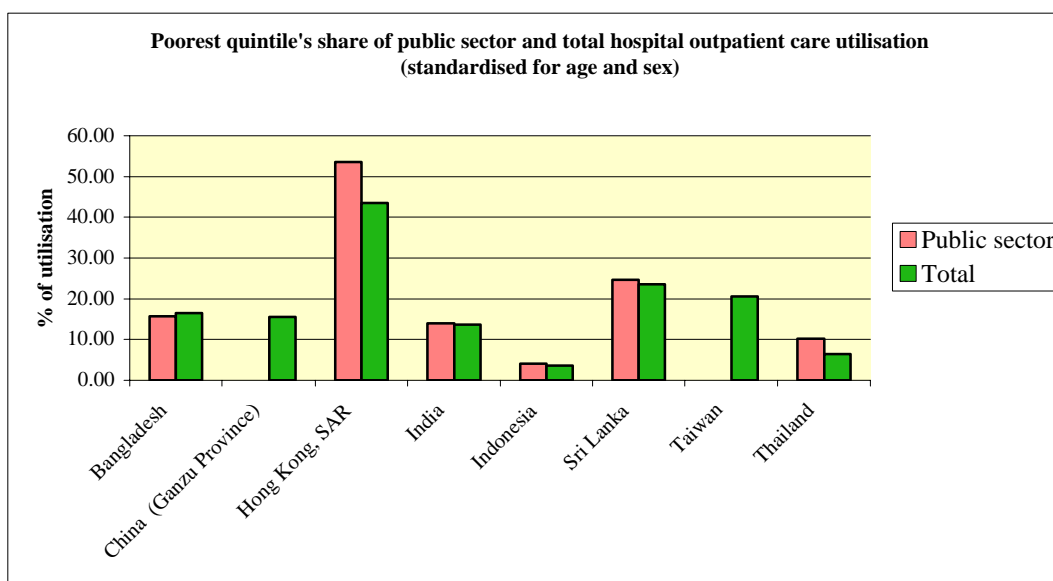


Figure 6: Targeting of public hospital outpatient spending in selected countries



Protection against catastrophic economic impacts of illness

A number of different measures have been developed for assessing the ability of health systems to protect against catastrophic risks of illness, and the direct impact on poverty. Equitap has compiled two sets of such measures for Asian countries: (i) the percentage of the population in a given time period incurring direct medical expenses greater than a fixed share of their overall household consumption (*catastrophic impact*), and (ii) the percentage of the population whose consumption level falls below the poverty line once medical expenses are taken into account (*poverty impact*).

Figures 7 and 8 shows the relationship between the incidence of catastrophic impacts and per capita national income and the percentage of total health spending derived from out-of-pocket sources. The key points to take from these charts are: (i) the major determinant of catastrophic incidence is not per capita income but the share of overall health spending from out-of-pocket payments – the more poor countries rely on out-of-pocket funding, the greater the frequency of catastrophic medical expenses; (ii) at low and middle-incomes, there is a large variation in the ability of countries to protect against such impacts, with countries such as China, Viet Nam, Bangladesh and Nepal doing poorly, and others such as Sri Lanka and Philippines doing well. Figure 9 illustrates this last point by ranking countries according to the incidence of catastrophic spending. In addition, but not shown in these charts, the distribution of catastrophic expenses by income group varies. In China, Bangladesh and Viet Nam, large medical expenses are experienced more by the poor than by the rich, whilst in Sri Lanka and Malaysia such expenses are most often reported by the rich, and in fact is mostly not catastrophic expenses, but merely the rich voluntarily choosing to obtain more expensive private care. Indonesia is an interesting exception to this pattern, with a low overall incidence of catastrophic expenses, but this appears to be explained largely by its poor foregoing all medical treatment when ill.

Figure 10 illustrates the percentage of the population forced below the poverty line (taken as an absolute level of PPP\$1 per capita per day) in each country as a result of medical expenses. This shows that direct impoverishment is largely unknown in countries such as Sri Lanka, Philippines and Thailand, but is a frequent occurrence in China, Bangladesh, India and Viet Nam.

Figure 7: Relationship between the incidence of catastrophic expenses and income level in Asian countries

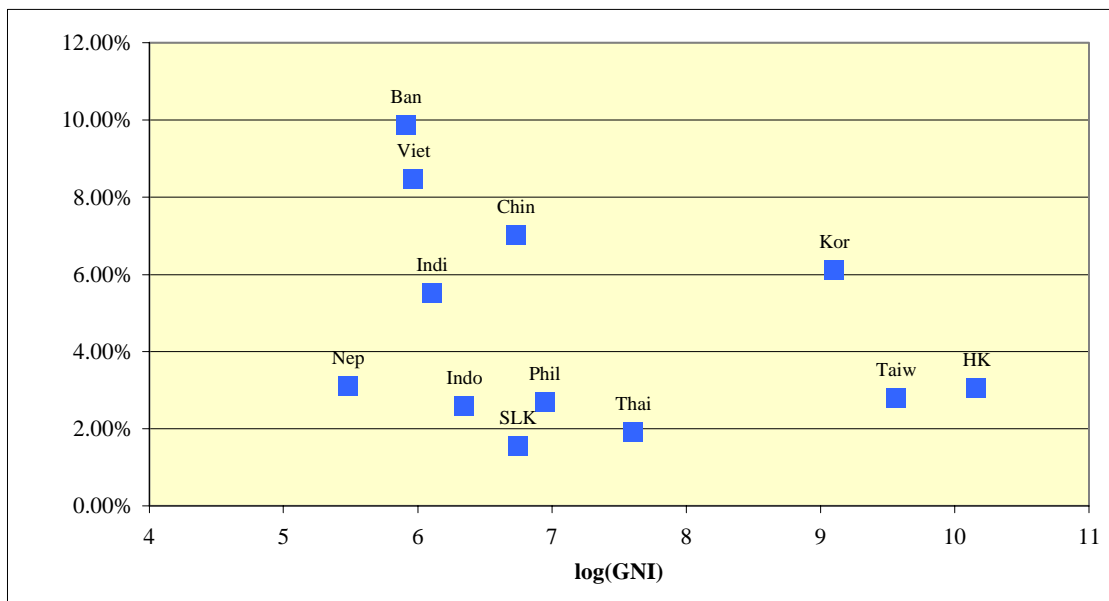


Figure 8: Relationship between the incidence of catastrophic medical expenses and the share of out-of-pocket spending in total financing

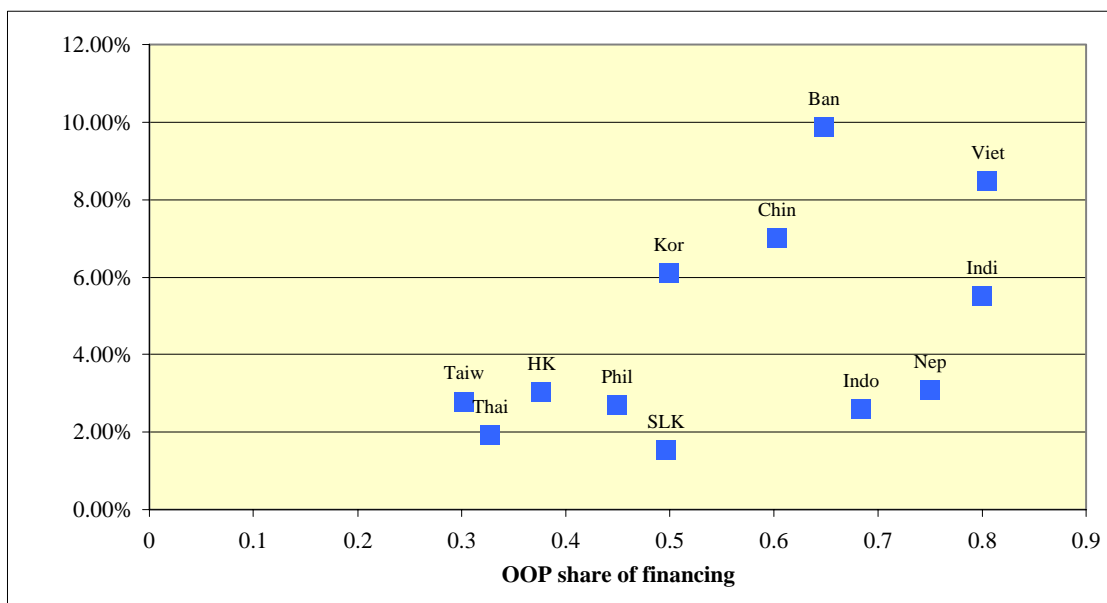
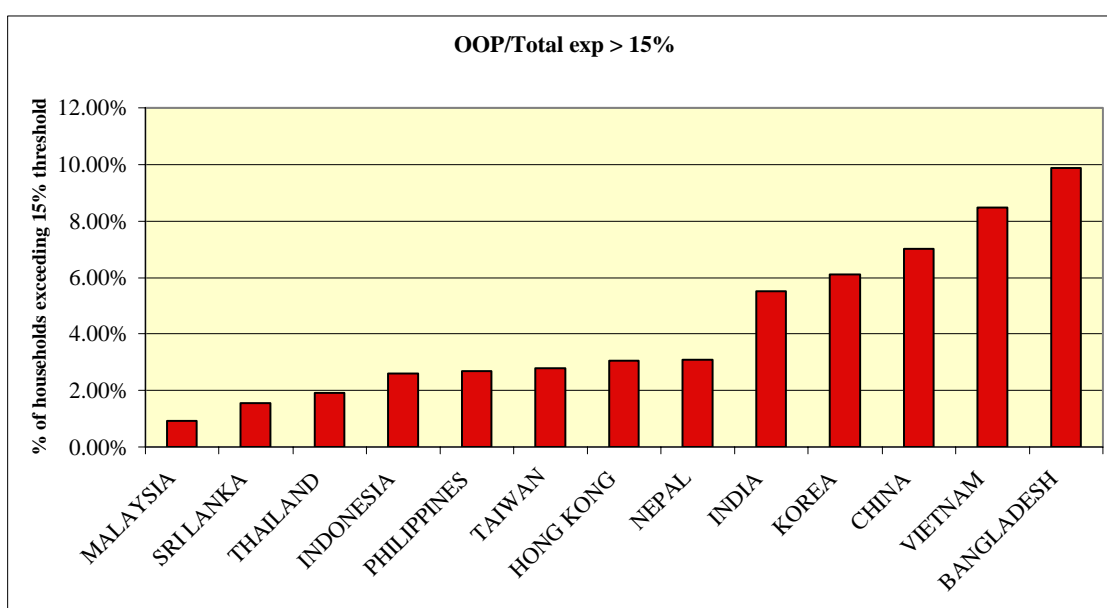


Figure 9: The percentage of households experiencing catastrophic medical expenses in selected Asian countries



4. IMPLICATIONS

The fact that the poor do worse in all respects of health is almost a truism. It is true in the UK as much as it is true in Bangladesh. The poor suffer not only from the disadvantage of inferior economic and health resources, but also from less beneficial health behaviours. However, allowing for that, there is considerable scope for public intervention and policy to mitigate the worst impacts on the poor, and this is the case as much in the poorest countries as in the richest ones.

In recognition of this, there have been many hundreds of individual local projects and initiatives, in countries such as India, Bangladesh, Indonesia and China, developed over the past two decades aiming to improve the access of the poor to health services and to improve overall social protection. However, as the aggregate national results from Equitap show, none of these have been sufficient to make any significant or discernible impact on the overall experience of the poor in these countries. Despite the many millions reached by innovative health projects in say Bangladesh, the reality is that the tens of millions of the Bangladeshi poor remain in substantially poorer health status, frequently impoverished by illness and in worse access of health services. There is certainly no evidence to date of any projects that have been scaled up to a national level.

What the Equitap study results show is that ultimately it is health systems that matter. Even at low-income levels with low levels of public spending, it is possible for health systems to ensure some equality of access to services, to reduce poor-rich inequalities in health status, and to largely protect the poor from impoverishment as a result of illness. The fact that it is health system design that matters is underlined by the fact that the three countries that do well in most respects (Sri Lanka, Malaysia, Hong Kong) all share a common health system design. Protection of the poor is correlated most closely with health system design and not with national income levels. China, where average incomes are now substantially greater than in South Asia and most of South-East Asia, still does much worse than many of those countries when it comes to protecting and reaching the poor.

If one looks at what distinguishes the good performers from the bad ones, several common aspects stand out. First, the countries where the poor are most effectively reached by services, are the countries where national policies stress universalism (Sri Lanka, Thailand post-2000, Malaysia). Although universalism is often not in favour in development circles, because it is considered unfeasible in resource-constrained settings, the reality is that the only poor countries where the poor are effectively reached are those where policies do not explicitly target the poor, either through user fee exemptions or specially-targeted programmes. Although there are many examples of projects, which are successful in reaching poor populations, there is no example in Asia of any such projects, which have been successfully scaled up to the national level.

Second, most of the countries where the poor do worst, are ones which either continue to maintain significant user charges in government facilities (China, Viet Nam, Indonesia), or which tolerate a high incidence of informal fees in government facilities (Bangladesh, parts of India). Official user charges either deter the poor from seeking care, or sustain institutional cultures that legitimate the charging of unofficial fees by health service providers. It is a legitimate question given this experience, whether any pro-poor health strategy can be considered realistic as long as official policy continues to maintain user charges for health spending. Moreover, given that inpatient services are the ones which typically exhibit the greatest pro-rich inequalities and which are

most likely to be important from a social protection perspective, it is particularly problematic when user fees are levied for hospital inpatient services. At the same time, it is not the case that substantial public spending is required to eliminate user charges or to provide adequate access through public delivery systems. Most low and middle-income countries in Asia report government spending on health of the order of 0.9-2.0% of GDP. As Sri Lanka, Philippines and Thailand show, it is possible to mitigate the worst inequalities with government expenditure levels of less than 2% of GDP (spending in Sri Lanka is less than 1.7% of GDP, and total spending less in dollar per capita terms than in India).

Third, it is not the case that tax-funded public delivery systems are doomed to failure in reaching the poor. Although many do fail, it still remains the case that the only low and middle-income countries in Asia which are successful in reaching and protecting the poor are ones that rely solely or predominantly on tax-funding (even Thailand's social insurance system is 65% funded from taxation), and on public sector delivery. Although demand-side financing has recently become fashionable, there is no empirical evidence of any poor country in Asia being able to use such strategies to reach the poor at the national level. Such strategies almost certainly require a level of administrative capacity and funding, which does not exist in the poorest countries.

That being said, there still remains the question as to why some tax-funded public delivery systems do work. The key appears to be that the successful systems are structured to ensure effective access to the poor, both by eliminating financial barriers, and also by ensuring geographic barriers to access are removed for the rural population through provision of many facilities. These systems also allocate a much larger share of public spending to hospital and inpatient services, thus ensuring that they provide substantial risk protection (Sri Lanka, Kerala, Malaysia, Thailand). At the same time, most of these systems allow the extra demand of the rich to be met in the private sector. The critical issue appears to be not how to means test and restrict access to the poor, but how to ensure that the poor really do have effective access to government services; if that can be achieved, then the rich will either use public services without reducing access of the poor, or voluntarily choose to use private services.

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