

## Who benefits from public spending on health care in Asia?

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## Abstract

We examine the benefit incidence of public health care subsidies in eleven Asian territories, including India, Indonesia and two provinces of China. The use of concentration indices and a high degree of consistency in the application of methods provide results that, unlike much of the existing evidence, are comparable across countries. Unlike many studies that examine utilisation data only or assume constant unit costs, we exploit detailed health accounts to allow for variation in unit expenditures across health services, facilities and regions. We distinguish between hospital and non-hospital care and between inpatient and outpatient care. We examine not only the distribution of quantities of health care but also that of the value of subsidies. Hong Kong is the only territory that achieves a strong pro-poor distribution of all public health services. Public health care is more moderately pro-poor in Malaysia and Thailand and is evenly distributed in Sri Lanka. In the remainder of the low-income territories examined, the better-off receive more of the subsidy than the poor. The pro-rich bias is greatest in Nepal, Heilongjiang (China) and Indonesia, followed by India, Gansu (China), Bangladesh and Vietnam. The pro-rich bias is stronger for inpatient care than hospital outpatient care. In most territories, non-hospital care is pro-poor. But the greater share of the subsidy goes to hospital care and so this dominates the overall distribution. While public health subsidies are typically not pro-poor, they are inequality reducing in all cases but for Nepal. This is because a given subsidy represents a greater proportionate increase in the living standards of the poor. Relative differences in welfare are narrowed. Hong Kong, Malaysia, Sri Lanka and Thailand have demonstrated that the allocation of sufficient public resources coupled with a policy of universal access can ensure greater benefits to the poor than is currently realised in many health systems throughout the developing world. Growing incomes not only make such policies more feasible, they also make them more effective, with respect to the target efficiency of spending, by availing the private sector opt-out.

**Keywords:** public health care, benefit incidence analysis, Asia

**JEL Classification:** H2, H4, I1, I3

# 1. Introduction

Ensuring that public spending on health care and other services is pro-poor is an important objective of many national governments and international agencies. It is central to the mission of the World Bank and is a key component of the Heavily Indebted Poor Countries Initiative and the International Monetary Fund's Poverty Reduction and Growth Facility. Underlying the objective is the contention that distributional concerns, to a large extent, justify public spending on health care. The ultimate targets may be reduced health inequality and greater equity in the distribution of health care. Public spending on health care may also be justified as an instrument for the redistribution of welfare. In low-income countries, where information and administrative constraints are particularly binding, in-kind transfers, such as public health care, are more feasible and potentially more efficient than cash transfers in alleviating poverty and reducing inequality (Besley and Coate 1991). The validity of such distributional justifications rests upon the empirical question of whether public subsidies for health care are in fact targeted on the poor.

Benefit incidence studies, many conducted by or in association with the World Bank, generally find that public spending on health care in developing countries is not concentrated on the poor (van de Walle 1995; Castro-Leal, Dayton et al. 2000; Mahal, Sing et al. 2000; Sahn and Younger 2000; Filmer 2003). A review of the evidence identifies only five countries in which the poorest fifth receive at least their population share of public expenditure on health care (Filmer 2003). Greater pro-rich bias in hospital-based care is a consistent finding (Filmer 2003). The inference frequently drawn is that a pro-poor health policy should seek to shift resources from tertiary to primary care (van de Walle 1998).

In this paper, we extend the evidence base and use concentration indices to compare degrees of inequality in benefit incidence using methods applied with a high degree of consistency across eleven territories, including India, Indonesia and two provinces of China, that account for a substantial share of the Asian population. One limitation of many benefit incidence studies is the crudeness of the unit cost data used to value services (van de Walle 1998; Sahn and Younger 2000). Deficiencies of public accounts systems mean that the available unit costs are frequently little better than guesstimates and reflect little of the variation in the quality of services across

levels of facilities and regions. Many studies opt to examine utilisation data only or use costs, assumed constant across individuals, simply as weights to aggregate across services. We overcome this limitation by employing detailed health accounts, available for most of the study territories, which document the distribution of public expenditures across health services, facilities and regions. Many benefit incidence studies do not take account of variation in fees paid and so assume that net public expenditure per unit is the same across all users. When there are effective fee waivers for the poor, the benefit to the poor will be underestimated. Where the survey data allow, we subtract user fees paid by the individual from gross public expenditure per unit of service. We also examine the sensitivity of the estimated distribution to informal payments that can erode the real value of the subsidy to the individual. We distinguish between hospital and non-hospital care and inpatient and outpatient care. We identify not only whether each service is pro-poor i.e., the poor are more likely to receive the subsidy, but also whether it is inequality reducing.

Our analysis reveals substantial variation across the study territories in the incidence of public subsidies for health care. Public spending is strongly pro-poor in Hong Kong. At lower levels of income, Malaysia, Sri Lanka and Thailand are considerably more successful than the other study territories, and most developing countries for which benefit incidence studies have been conducted, in directing public spending on health care toward the poor. We discuss the ingredients of this success, not least of which appears to be the scale of public expenditure.

In the next section, we describe the magnitudes of public spending on health care in the study territories and the charging policies adopted. Data and methods are discussed in section 3 and results are presented in section 4. In the final section we consider reasons for the differences in the distribution of public spending on health care and discuss the implications for policy.

## **2. Public spending on health care and charging policy**

The contribution of government revenues to total expenditure on health (TEH) varies a great deal across the territories we examine; from 15% in China and India to 50% or more in Sri Lanka, Hong Kong, Malaysia and Thailand (Table 1).<sup>1</sup> Given such differences in the magnitude of the public subsidy to health care, its distributional

impact would vary considerably across the territories even if there were no variation in the benefit incidence. In fact, as we show below, the subsidy is largest precisely in those territories in which it is most pro-poor. Variation in levels of spending inflates differences in distributional impact.

### **TABLE 1**

The extent to which the public subsidy is targeted on the poor will depend upon user charging policy both because the price effect on utilisation may vary with income and because exemptions may shield the poor, raising the subsidy to them. The extent and the nature of charging vary across the study countries (Table 2). Sri Lanka is the only country that provides most public health care free of charge. Fees are levied in Malaysia but they are kept very low. A visit to a public clinic costs the equivalent of around 25 US cents, inclusive of medication; a very small fraction of fees in the private sector. Charges for public hospital care are also very modest in comparison with the private sector. In Thailand, since the introduction Universal Coverage (UC) in October 2001, the fee for ambulatory care is only 70 US cents and hospital admission is free for UC members. Relative to incomes, Hong Kong's point-of-service charges are minimal.<sup>2</sup> In the other countries, charges are levied on most hospital-based care. In India, charges are made for hospital beds but, at least in principle, not for consultations. Non-hospital ambulatory care is (officially) free in Bangladesh, India, Nepal (partially) and Vietnam. Family planning is free in most countries but, somewhat paradoxically, not in Sri Lanka. Of course, there are often substantial discrepancies between the official charging policy and its implementation in developing countries (Ahrin-Tenkorang 2000). For example, the Vietnamese data we analyse show substantial payments for care at commune health centres, which are supposed to be free. Similarly, there is evidence of payments for, supposedly free, primary care in India (Banerjee, Deaton et al. 2004). 'Free' medicines are often in short supply and must be purchased. Charging is most extensive in China, Indonesia and Vietnam, where charges are imposed on virtually all non-preventive services.

There are no formal procedures for exempting the poor from charges in China and India. This, combined with the extent of charging in China, can be expected to have a substantial distributional impact. In Vietnam, a village committee grants exemptions only to those considered indigent. Although charges are imposed on virtually all services in Indonesia, the poor are exempted through a health card system.

Exemptions for the poor also exist in Bangladesh, Hong Kong, Malaysia (on discretion), Nepal and Thailand. Again, there are well-known problems with the implementation of fee-waiver schemes (Ahrin-Tenkorang 2000; Tien and Chee 2002). Price discrimination by quality of hospital inpatient care relieves the charges incurred by the poor in India and Malaysia. Less consistent with the targeting of health care subsidies on the poor are the exemptions offered to civil servants in Bangladesh, Hong Kong, Malaysia and India.

**TABLE 2**

### **3. Data and methods**

We examine individual utilisation of public health care in relation to living standards. Data are from the most recent official health or socio-economic surveys that provide information on both utilisation of public health care and a suitable measure of living standards (Table A1). All are nationally representative but for the two surveys of Chinese provinces. Our preferred proxy for living standards is household (per adult) equivalent consumption, which includes the value of goods produced by the household for own consumption and a use value of housing and durable goods. The equivalence scale used is  $e_h = (A_h + 0.5K_h)^{0.75}$ , where  $A_h$  is the number of adults in household  $h$  and  $K_h$  the number of kids (0-14 years).<sup>3</sup> Household expenditure, rather than consumption, is used for Hong Kong, where household production is much less significant. For Malaysia, the only available measure of living standards included in the health survey is household income. This is likely to give an underestimate of the living standards of rural households engaged in the informal agricultural sector. It is, however, the measure that has been used in previous incidence studies of Malaysia (Meerman 1979; Hammer, Nabi et al. 1995).

We present distributions for three categories of public health care: hospital inpatient care, hospital outpatient care and non-hospital care. The latter is an aggregate of visits to a doctor, polyclinic, health centre and antenatal care (see Table 3). For the two Chinese provinces, the surveys cover only hospital care but distinguish between five levels of facilities, the lower levels of which are equivalent to polyclinics/health centres. In Nepal, the survey does not allow a distinction between hospital inpatient and outpatient care. For inpatient care, the reference period is 12

months except in Bangladesh (3 months) and Sri Lanka (2 weeks). The number of days of inpatient care is usually recorded but in Malaysia and Thailand it is the number of admissions and in Sri Lanka it is only whether there was any admission. For all other care, the reference period is somewhere in the range of a fortnight to a month except in Bangladesh (3 months) and the number of visits is recorded except in Sri Lanka where the survey only records if there was any visit and in India where the number of treatment episodes at a health centre is recorded.

**TABLE 3**

Utilisation data do not capture variation in the value of subsidies across services, facilities, geography and individuals. Further, one cannot simply aggregate units of utilisation across services to get the total health sector subsidy. Both extensions require weighting an individual's use of a specific service by an estimate of the value of the unit subsidy that individual receives. The service-specific public subsidy received by an individual is,

$$S_{ki} = q_{ki}c_{kj} - f_{ki}, \quad (1)$$

where  $q_{ki}$  indicates the quantity of service  $k$  utilised by individual  $i$ ,  $c_{kj}$  represents the unit cost of providing  $k$  in the region  $j$  where  $i$  resides and  $f_{ki}$  represents the amount paid for  $k$  by  $i$ . Where possible, we distinguish between facilities, eg, local, district, teaching hospital, as well as services, eg, inpatient / outpatient, but do not index this to avoid clutter. Unit costs are computed as  $c_{kj} = \frac{TRE_{kj}}{\sum_{i \in j} q_{ki}w_i}$ , where  $TRE_{kj}$  is total

recurrent public expenditure and  $w_i$  is an expansion factor necessary to inflate sample to population utilisation. The total public subsidy received by an individual is computed as  $S_i = \sum_k \alpha_k S_{ki}$ , where  $\alpha_k$  are scaling factors that standardise utilisation reference periods across services.

National Health Accounts (NHA), available for Bangladesh, the Chinese provinces, Hong Kong, Sri Lanka and Thailand, are used to disaggregate expenditure figures by facility, in addition to service and region. For example, in each of the two Chinese provinces, for inpatient and outpatient care, unit subsidies are specific to 5 levels of facility and at least 13 districts. Detailed health accounts for Sri Lanka also

allow net expenditure figures to be computed across a range of services and regions but it is not possible to distinguish between expenditure on hospital and non-hospital ambulatory care. Full NHA are not available for India, Indonesia, Malaysia, Nepal and Vietnam. For India, we use the unit subsidies computed by Ajay Mahal and colleagues (Mahal, Sing et al. 2000). These vary across 960 sub-groups (i.e., 3 facilities, 16 major states, urban-rural, male-female and 5 income quintiles). For Indonesia, public health expenditure review figures allow the disaggregation of expenditure for each of 30 provinces by hospital inpatient care, hospital outpatient care and non-hospital care.<sup>4</sup> For Malaysia, expenditure data were disaggregated to 5 levels of public hospitals but geographic disaggregation was not undertaken since the utilisation data could not be analysed by this dimension. Incomplete health accounts for Nepal allow disaggregation by hospital and non-hospital care by region (Institute of Policy Studies 2003). For Vietnam, we use public accounts and hospital costing estimates to compute unit costs by service and facility but it is not possible to allow for regional variation (World Bank 2001; World Bank 2003).

Some individuals make payments in excess of production costs. Since we are primarily interested in who gets the (positive) subsidies from the health care system, we set negative values of the subsidy to zero. Survey estimates of aggregate user fee revenues may not match the official figures. Apart from sampling error and non-sampling error due to recall bias, unofficial payments may be an important source of discrepancy. Such payments do not contribute to government revenue and one might argue that they are irrelevant to the allocation of the public subsidy. On the other hand, it seems perverse to maintain that an individual paying a bribe equal, for example, to the cost of providing a health service is the beneficiary of a subsidy. The real value of a subsidy is the difference between the real resource value of the services consumed and the payment made for those services. So, we use reported, and not official, fees in computing the subsidy. In effect, we treat unofficial payments as rent extracted by the suppliers of public health care. There are two circumstances in which this treatment of user fees is inappropriate. First, unofficial payments may be required to fill the gap between the cost of care provided and the available government budget. Then, unofficial payments then cancel out from the computation of the real subsidy since they should be added both to costs and payments. Second, one may be interested only in the incidence of the nominal subsidy – the difference between the cost incurred by the government and the payment the government receives.<sup>5</sup> In each case,

the subsidy should be computed from official user fee revenue. In the data, however, one cannot distinguish between official and unofficial payments. For Bangladesh, Hong Kong and Vietnam, we estimate the distribution of official user fee revenue by scaling all reported payments by the ratio of total official user fee revenue to aggregate payments calculated from survey data (World Bank 2003). This allows us to test the sensitivity of the results to different treatments of unofficial payments.<sup>6</sup>

For China, India, Malaysia, Nepal and Sri Lanka either the survey data do not contain payments made by individuals for *public* health services or the data are not considered sufficiently reliable e.g., payments for public and other care are likely to be confused. For these countries, we assume, for a given service, facility and region, that all pay the same charge. Health accounts are used to calculate total net expenditure i.e. total expenditure less total user charge revenue, on a service-facility-region basis. These net expenditures are then apportioned to individuals in proportion to the utilisation distributions estimated from the survey data. For Indonesia, survey estimates of individual payments for public care are not considered sufficiently reliable and expenditures net of user fees cannot be computed accurately at the province level. We therefore apportion expenditures gross of fees according to the distributions of utilisation.

Evaluation of the distribution of a subsidy requires reference to some target distribution, the choice of which implies imposition of a distributional objective. One alternative is to establish whether the subsidy is *pro-poor*, in the sense that the poor receive more of the subsidy than the better-off. In this case, the distribution of the subsidy should be compared with population shares. The concentration index (Kakwani, Wagstaff et al. 1997) provides a summary index of this comparison that is negative if the poor generally receive a dis-proportionate (to population) share of the subsidy. A negative concentration index indicates that the subsidy helps close the absolute gap in living standards between the rich and poor. A second, less ambitious, objective is that the subsidy be *inequality reducing*. This requires that the share of subsidy received by the poor exceed its share of total consumption. The Kakwani index (Kakwani 1977), equal to the concentration index less the Gini coefficient, can be used to establish whether the subsidy is inequality reducing. A negative Kakwani indicates that the subsidy reduces inequality in living standards.

## 4. Results

The shares of public health care utilisation consumed by the poorest and the richest fifth of the population are presented in Table 4. Hong Kong displays the clearest pro-poor distribution of public health care, with the poorest fifth consuming much more than one fifth of all types of public health services. Public health care is also pro-poor in Malaysia and in Thailand (not hospital outpatient), with the gradient stronger for non-hospital care than it is for hospital care. As far back as 1974, (Meerman 1979) found no income bias in total public spending on health care in Malaysia but pro-poor spending on rural clinics and mid-wife delivered births. By the 1980s, total public spending on health care was pro-poor (Hammer, Nabi et al. 1995). In Sri Lanka, the poorest fifth consume slightly more than one fifth of hospital-based care and slightly less than a fifth of non-hospital care. In the remainder of territories, non-hospital care (visits to doctor, polyclinic, health centre and antenatal care) tends to be marginally pro-poor while hospital-based care is clearly pro-rich. The poorest 20% receive less than 10% of all inpatient care in the two Chinese provinces, India, Indonesia and Nepal (inpatient and outpatient care) and only slightly more than 10% in Bangladesh and Vietnam. In all these cases, with the slight exception of Vietnam, the richest 20% get more than 30% of all inpatient care. Such rich-poor differences undoubtedly to a large extent reflect urban-rural disparities. Hospitals are concentrated in cities, while the poor are concentrated in the countryside. But a pro-rich distribution of inpatient care is not inevitable, as is demonstrated by Hong Kong, Malaysia, Sri Lanka and Thailand. In general, hospital outpatient care is only slightly less pro-rich than inpatient care, with the poorest fifth receiving a share that is much less than a fifth everywhere except Hong Kong, Malaysia and Sri Lanka. In contrast, only in Nepal do the poorest fifth receive less than a fifth of public care delivered outside of hospitals.

**TABLE 4**

The distributions of public health care across the full distribution of total consumption are reflected in the concentration indices given in Table 5. With the exceptions of Hong Kong and, to a lesser degree, Malaysia, Sri Lanka and Thailand, all concentration indices for hospital-based care are positive, indicating pro-rich bias. Departures from proportionality, i.e., a concentration index of zero, in the distribution

of hospital care are significant in all cases except for Thailand and Sri Lanka (inpatient care).<sup>7</sup> There is little evidence of pro-rich bias in the distribution of non-hospital care. The respective concentration index is significantly positive only for Nepal. The index is actually significantly negative, indicating pro-poor bias, in Hong Kong, India, Indonesia (outpatient and antenatal care at health centres), Malaysia, Thailand and Vietnam. In Bangladesh and Sri Lanka, one cannot reject the hypothesis of no bias in the distribution of non-hospital care.

In general, the Kakwani indices are significantly negative indicating that the share of public health care consumed by poorer individuals exceeds their share of total consumption. Public health care is inequality reducing, despite the fact that it is typically not pro-poor. It closes the relative gap in living standards but not the absolute gap. This redistributive effect is strongest in Hong Kong followed by Malaysia, Thailand and Sri Lanka. Non-hospital care is more inequality reducing than hospital-based care. The Kakwani indices for inpatient care in Bangladesh, Heilongjiang and India are not significantly different from zero, indicating no effect on inequality. In Indonesia, the Kakwani indices for hospital care are significantly positive, suggesting that inequality is actually increased.

#### **TABLE 5**

Poorest and richest quintiles' shares of the public health subsidy by service and in aggregate are given in Table 6. Hong Kong is clearly the exception with almost 40% of the value of the subsidy going to the poorest 20% of individuals. The next closest are Malaysia with 23%, Sri Lanka with 21% and Thailand with 20%. In all other territories, the poorest fifth receive much less than one fifth of the value of the subsidy. In Nepal, only 5% of the total subsidy goes to the poorest 20%, while 45% goes to the richest 20%. The share of the poorest fifth is close to 10% or less in the two Chinese provinces. Only in Hong Kong, Malaysia, Sri Lanka, Thailand and Vietnam do the richest 20% absorb less than 30% of the public subsidy to health care.

#### **TABLE 6**

Concentration and Kakwani indices for the public subsidy to each category of care and in aggregate are presented in Table 7. The indices for each health service

category are generally close to the respective values in Table 5, suggesting that variation in utilisation and not in unit subsidies is the dominant determinant of the distribution of the public subsidy. There are, however, some exceptions. Discrepancies between the index for utilisation and that for the subsidy can arise from variation, across the income distribution, in the specific services and facilities utilised (with consequent differences in unit costs), from geographic variation in the subsidy to specific services and from variation in the users fees paid. The concentration indices for the subsidy to inpatient care in Bangladesh and both inpatient and outpatient care in Vietnam are slightly smaller than the respective indices for utilisation, which is consistent with discrimination in favour of the poor in the fees levied. In Bangladesh, fees for tertiary hospital inpatient care are substantial and affordable only by the better-off. Fee exemptions operate, as they do to a lesser degree in Vietnam. In Gansu and Heilongjiang, pro-rich bias in inpatient care is also ameliorated in moving from the distribution of raw utilisation to that of the money value of the subsidy. But in these cases, differential fees cannot explain the change since we do not have data on fees paid. In Nepal and Sri Lanka, the distribution of the inpatient subsidy is actually more pro-rich than that of utilisation. Geographic variation in hospital costs, with better-off urban dwellers making greater use of high cost hospitals, seems a likely explanation. This is also true for outpatient care in Bangladesh, Gansu and Heilongjiang. In Bangladesh, charges are much less for outpatient than inpatient care and the tendency for the better-off to pay more is strong enough to weaken the pro-rich bias in inpatient but not outpatient care.

Indices of the distributions of the total subsidies are given in the final column of Table 7. In general, these are closest to the indices for inpatient care, reflecting the large share of public expenditure absorbed by inpatient care. Only in Bangladesh, Indonesia and Malaysia does the inpatient share of the total subsidy fall below 50%. In Hong Kong, India, and Vietnam, the share is 80% or more. In Hong Kong, Malaysia and Thailand, the total subsidy concentration indices are significantly negative, indicating a pro-poor distribution of the public subsidy to health care. In Sri Lanka, the index is zero. In all other territories, the concentration index is significantly positive. The better-off receive more of the public subsidy to health care than the poor. This pro-rich bias is most marked in Nepal, followed by Heilongjiang, India, Gansu and Indonesia. The bias is less in Bangladesh and even more moderate in

Vietnam due to a more even distribution of inpatient care and, in the case of Vietnam, the offsetting effect of pro-poor non-hospital care.

In Bangladesh, Hong Kong and Vietnam, we are able to test the sensitivity of the results to the treatment of unofficial payments. Scaling reported payments such that they sum to official user fee revenue gives an estimate of the official payment made by each individual. Subtracting this estimate, rather than reported payments, in the computation of the unit subsidy gives a concentration index of 0.1707, rather than 0.1588, for Bangladesh. The effect is greater in Vietnam, where the concentration index rises from 0.0886 to 0.1606. This reflects the large magnitude of unofficial payments in Vietnam (World Bank 2001; World Bank 2003). The distribution becomes more pro-rich when unofficial payments are taken out because the better off make more payments and we assume the ratio of unofficial to total payments is constant. Since payments are subtracted from given costs and the magnitude of the adjustment to payments is greater for the rich, the subsidy to the rich must rise relative to that to the poor. If unofficial payments fall even more disproportionately on the better-off, the effect would be even greater. There is very little impact on the distribution in Hong Kong, which is not surprising given that unofficial payments do not exist the difference between reported and official user fee revenue reflects sampling and non-sampling error only.

Personal health services do not account for all public expenditure on health. Substantial resources are absorbed by services that have public good characteristics, such as public health programmes, administration, medical education and research. In Sri Lanka, for example, such collective services account for 35% of total public expenditure on health. If all individuals benefit equally from such services, then they have a concentration index of zero and move the distribution of the total subsidy in the direction of equality. The benefit may vary, of course, but it is very difficult to estimate such variation. One possibility is to assume that utilisation of personal health services reflects demand for health and so the benefit obtained from collective services. On this assumption, expenditure on collective services can be allocated in proportion to the total utilisation of health care. Doing this for Sri Lanka gives a concentration index for collective services of  $-0.0994$ . The index for the total subsidy becomes slightly negative (from 0.0010 to  $-0.0356$ ) but remains insignificantly different from zero. The effect is modest, despite the large share of collective services in total spending, because the subsidy to collective services is allocated in proportion

to total utilisation, which is the main determinant of the distribution of the total subsidy. Given the unit subsidy to inpatient care is much larger than for other care and that inpatient care is typically more pro-rich than total utilisation, in general, this adjustment will make the distribution of the total subsidy appear more pro-poor. It is likely that benefits from collective services are more evenly distributed than personal services and so allocating collective services in proportion to utilisation of personal service gives an upper bound on the magnitude of their inequality. In most cases, taking account of expenditures on collective services would result in a more even distribution of the subsidy with the impact positively related to the share of total spending on such services.

With the exception of Nepal, all Kakwani indices are significantly negative, indicating that the public subsidy is inequality reducing. The subsidy falls as a proportion of household consumption as the latter rises and so reduces the *relative* gap in welfare between the rich and the poor. The Kakwani index is largest in magnitude in Hong Kong, followed by Malaysia, Thailand and Sri Lanka. These are precisely the four territories in which the public subsidy to health care is largest (Table 1). The progressivity of the subsidy is inflated by its magnitude to give a far larger redistributive effect in these four territories than elsewhere.

## TABLE 7

## 5. Discussion

The public health system of Hong Kong is clearly an exception amongst those examined in this paper. It achieves a pro-poor distribution of all public hospital and non-hospital care and hence of the total public subsidy to health care. This is the product of a universally accessible public system, with minimal user charges from which the poor are exempted. The availability of private health care offering better amenities, coupled with rationing by waiting time in public facilities, gives the better-off and those covered by employer-provided private insurance the alternative to opt-out of the public system, ensuring that the subsidy goes disproportionately to the poor. Of course, it is the high income of Hong Kong that makes such a system affordable. Amongst the low/middle income countries examined, Malaysia, Thailand and Sri







































