Coping with the costs of illness in slum households in Bangladesh. An empirical analysis of the relationship between income distribution and household behaviour
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Our results on the costs of illness and how slum households cope with these costs touch on different categories of policy implications. The first one relates to the organisation of health care, which includes access to health care. The second category concerns aspects of health care financing. The third one regards policies to protect household incomes against the effects of economic costs of illness on the household socio-economy. To close this Chapter, we will discuss the role of the state in the implementation of the policy implications.

These policy implications could be relevant for developing countries with mega-cities and a similar socio-economic profile and health care delivery features, particularly governments of countries and the city councils in the Indian subcontinent.

11.1 Policy implications relating to health care organisation

Free or cheap, but less effective health care options for severe illness cases (such as wait-and-see, home-care and pharmacies) were by far the most used. Consequently, modern qualified care, whether private-for-profit, non-government or publicly owned care, was used marginally and inadequately. Travel and waiting time for publicly owned and non-government health facilities, and direct costs for private-for-profit providers, were reported by the slum people as the main barriers to their use.\(^1\) Hospitals were used much more as a primary contact than as a referral-level service. Therefore, modern qualified health services should be organised so that they become more responsive to the needs of the slum dwellers. We propose functional community-based health services (where curative, preventive and promotive activities are integrated) and hospitals that are accessible for cases referred by the community-based services.

Furthermore, in view of the impact of illness burden on household income, existing health services, particularly public and non-government mother-and-child-health care services that are targeting particular sub-groups in the population, should be directed to all household members, including the income-earners.

Health messages given during activities at all levels of health care delivery should emphasize (1) the need to use services ‘appropriately’(i.e. that people should first visit community-based services that may refer the patient to higher-level care when required; and that they be taught correct home-care practices); (2) the risk signs during pregnancy and delivery, and the implications of the use of traditional services for delivery. Special messages should be directed towards men (through the mass media as well as through health services) to modify their perceptions regarding the social status of women and to make

\(^{3}\)It is worth to note here - but not surprising - that our study component relating to health care seeking for antenatal/postnatal services and deliveries has identified similar problems with regards to the organisation and access of these services. The results of this component also highlighted the use of traditional healers during delivery, sometimes resulting in the death of the mother.
them aware that women and children, particularly girls, should have equal access to health care as the men.

The possibility for re-organisation of health care delivery and the potential for people contributing towards it, were expressed in the feed-back on the study findings from the slum communities, men and women alike, during the meetings organised as the final component of the study. They are summarised for one community in Box 2. What is surprising is not so much that poor people expressed their opinions about how health care should be organised (although it should be a desirable goal in any health care policy development at the local level), but the common sense expressed in these views which are in line with what was outlined above in this section as a health care system concept and that thanks to organisations such as the World Health Organisation, globally became known under the term ‘Health District’ (WHO, 1987; Van Lerberghe W., Lafort Y.).

Such a Health District is built upon the implementation of the concept of a 2-tier health care system, that uses resources in a ‘rational’ way, i.e. containing costs while assuring integrated, continuous and comprehensive health care based on sound health care practice. Such a health care system consists of (1) a network of decentralised, community-based and managed Health Centres, where curative, preventive and promotive activities are integrated, and, (2) a Referral General Hospital, co-managed by health professionals and representatives of the population living within the areas of responsibility of the Health District. The system functions within a permanent dialogue and participation between communities and health professionals, in order to ensure the necessary relation of trust between them. Ensuring quality in the delivery of care as well as accountable behaviour of providers are expected benefits from such interaction. The interface for this dialogue is the community-based Health Centre (Van Balen H., 1989).

If such a health care system is built up and correctly used by the population, several savings can be made (Drummond M.F. et al., 1989). If a patient consults a Health Centre instead of the Out-Patient Department of a hospital, there are direct benefits within the health sector thanks to a more rational and, consequently, less expensive organisation and operation of the health sector. Such use of health care is expected to produce for the user savings in expenditure (i.e. the so-called direct benefits) and savings in lost work time (indirect benefits).

In view of the importance of drugs in the cost structure of illness episodes, strategies should be designed to further improve the effectiveness of the Bangladeshi Essential Drugs Policy. These strategies should include interventions aimed at rationalising prescribing practices of doctors, formulation and effective implementation of regulations on dispensing practices of drugs in pharmacies and drug stores, and, making drugs affordable to poor people. Currently, drugs such as antibiotics, corticosteroids or insulin which are indispensable for the patient if correctly prescribed, are relatively expensive, whilst drugs that only aim at increasing the patient’s comfort are cheap.
11.2 Levels of financial contribution to cover direct health care costs.

Although the findings suggest that there is some scope for financial contribution by slum households to cover direct health care costs (the willingness is expressed by out-of-pocket payments), its level is limited.

In section 7.6 we estimated that for the ‘hard-core poor’ households (about 20 to 30% of the slum population), the ‘affordable’ level is not higher than on average taka 1 to 10 per illness episode (US$ 0.025 to 0.25), irrespective of the severity of the illness case (and consequently of the level of care). These are near symbolic payments. Table 11.1 shows that, taking into account the illness incidence rate for this section of the slum population (namely 5.33/person-year), this would mean an annual per capita expenditure of about taka 27.- or US$ 0.67, or on average per household, taka 101.2. This would correspond to only about 18% of the total annual household out-of-pocket expenditure for health in this income quintile. As a percentage of overall annual household expenditure, this would be 0.62%. This is an average for this group of households. For the particularly vulnerable households among the hard-core poor households, such as those headed by divorced or widowed females, special measures, such as token payments are likely to be required.

In the same section 7.6, the levels of contribution from the households belonging to the absolute poor (another 30-40% of the households) and the 20-30% of the households of the highest income quintile living above the poverty level were found to be gradually higher and reached taka 61 to 70 (US$ 1.53 to 1.75) per illness episode in the highest income quintile. Using the same calculations in Table 11.1 as for the hard-core poor, this would mean for households living above the poverty level, 61.3% of the total annual household out-of-pocket expenditure for health, or 3.28% of overall annual household expenditure. These percentages are much higher than the corresponding ones in the group of the hard-core poor households.*

Table 11.1: ‘Affordable’ shares of out-of-pocket expenditure for health and of total household expenditure as estimated from the study results for the hard-core poor and the households living above the absolute poverty level

<table>
<thead>
<tr>
<th>Income group</th>
<th>Study results</th>
<th>estimated affordable level per HH per year*</th>
<th>Study results</th>
<th>Share of HH Exp for Health: (A) x 100</th>
<th>Share of Total HH Exp: (A) x 100</th>
<th>Per month</th>
<th>Per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ill eps/100 PMs</td>
<td>Ill eps per person per year</td>
<td>taka/ill eps</td>
<td>taka per person per year</td>
<td>HH size</td>
<td>(A)</td>
<td>(B)</td>
</tr>
<tr>
<td>Hard-core</td>
<td>44.4</td>
<td>5.328</td>
<td>5</td>
<td>26.64</td>
<td>3.80</td>
<td>101.2</td>
<td>48</td>
</tr>
<tr>
<td>Above absolute poverty level</td>
<td>27.9</td>
<td>3.348</td>
<td>65</td>
<td>217.62</td>
<td>6.96</td>
<td>1515</td>
<td>206</td>
</tr>
</tbody>
</table>

* All figures are in taka.

In conclusion, the findings indicate that even the poorest appear to be able to pay small amounts. By doing so, they also signal that they ‘belong to those who are contributing to cover health care costs’, and this consequently prevents them from being socially excluded, if for instance exemption mechanisms

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* For income quintiles 2 and 3 at one hand, and income quintile 4 at the other, the estimated shares of out-of-pocket expenditure (OOP) for health were 95% and 99% respectively, and of total household expenditure 3% and 3.4% respectively.
would be put in place.

All these levels of contribution are considered not to influence the consumption of other basic commodities, such as food, nor to push households to take loans to cover health care costs that they would be unable to reimburse later. Therefore, if ability to pay is to be respected, payment modes applying *simple differential payment levels* according to the household socio-economic status and per illness episode should be designed (an index based on proxy indicators for socio-economic status could be used, although its practical applicability may be problematic). Such contributions by the community should preferably be made at the Health Centre level to cover the whole illness/risk episode. This would remove financial barriers for access to referral care relating to the treatment costs for illness cases that need referral and are effectively referred by the Health Centres.

Apart from these cash contributions to cover the costs of health care delivery, other forms of community-financing, such as labour (e.g. for the construction of community-based services) and contributions in kind, should be considered to correctly capture the contributions of the population to the establishment and the functioning of the health care system (Stinson W., 1984).

*Financial contributions should not be disconnected from the slum residents' broader participation in and understanding of the health care system* and the potential for some forms of financial contributions for broader social mobilisation (Desmet M. et al., 1999). They should be considered as a complement to public funding (which is already low), not as an alternative for it (see section on public funding in 11.4).

### 11.3 Protecting the household socio-economy against the effects of the economic costs of illness

In developed countries, protection against the effects of the economic costs of illness on the household economy are in-built in their social security systems and further ensured by operational and accessible health care services. In lower-income countries, these protection mechanisms are largely absent. In the first section of this chapter, we discussed the basics of a functional two-tier health care system that would guarantee better geographic access to health services and communication with users and communities. A further reduction of the burden of the economic costs of illness on the household socio-economy can be obtained by increasing the household income through complementary income-generating activities. Community-based risk-pooling and cost-sharing can be a means for a more equitable financing of the direct costs of illness, such as treatment costs or transport costs for referral (Macintyre K., Hotchkiss D.R., 1999).

In low-income countries, there are many mutual aid organisations. They have in common a not-for-profit character, the willingness to develop solidarity amongst their members in order to improve their quality of life, and an open and voluntary affiliation that assumes active participation in their management. In these associations, people take responsibility for their own destiny by understanding the

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5 From a health economic point of view, we could describe social exclusion and its effects on the poor’s participation in health care management and financing as follows: People with a certain willingness to pay for health care or to contribute to a community health insurance scheme, may feel excluded when society or the scheme’s organizers do not count upon them to take part in the organisation of health care financing. It may be understood as a paradox indeed that the organizers of a scheme aim at reaching the vulnerable by excluding them from payment, yet the vulnerable may appreciate the right to make ‘some’ financial contribution.

6 One should be careful not to encourage further ‘negative’ consequences of coping, such as drop-outs from education due to child labour, through the introduction of new income-generating activities in the household.
problems they face and how to properly address them in a participatory way. They are therefore, important vehicles for social mobilisation, i.e. a process whereby communities take responsibility for their own destiny by understanding the problems they face and how to properly address them in a participatory way (Atim C. et al., 1996).

What is to be ‘managed or insured in solidarity’ is particular to every community and based upon the perception of what cannot be acquired or managed with usual household income or may cause substantial economic disruption of every-day life of households and individuals. For instance, in Central and West-Africa, there are many “tontines mutuelles et d’affaires”? (Gélinas J.B., 1994), with up to several thousand members, where contributions serve to bear considerable household-level costs, such as funerals, or to purchase household equipment, such as a refrigerator, or to start up a small business. Most of these associations are based on mutual savings systems. As we illustrated in section 7.5, the capacity to save may be extremely limited, if not virtually impossible, for instance for the hard-core urban poor households, as they live in chronic financial deficits, whether or not there are health care costs. Therefore, particularly in South-Asia, new small and large mutual help associations have been established which provide (micro-)credit to poor families to start up small-scale economic activities that produce supplementary income for the household (Raj N.C., 1996). These micro-credit schemes have proven to be successful. In Bangladesh for instance, the Grameen Bank with about 2 million members is present in almost half of the villages of the country. It was able to demonstrate that the income of the participating households on average increases by 60% over 3 years, and, after eight years, about half of all borrowing households graduate totally out of the poverty cycle (Grameen Bank, 1996). Micro-credit schemes, started in South-Asia, have since been replicated in Africa and in the Americas to increase household income thereby relatively decreasing the likely impact of indirect costs in terms of loss of income on the household income.

Direct costs of illness are in low-income countries in both Asia and Africa, far less the subject of mutual aid schemes - most of them small-scale - despite all the positive features ascribed to health insurance schemes and which are associated with their potential of spreading the economic burden across subgroups of the population, such as the sick and the non-sick, and the rich and the poor (Mills A., 1983 (a)). The reasons for this relate to technical-managerial issues on the one hand, and to communities’ perceptions on the other hand. The former include issues, such as adverse selection (low-risk and mostly higher income individuals opt out or the high risks are the most interested and remain in the risk pool) and the compulsory nature of many schemes, ‘frivolous use’, known as moral hazard, by subscribers, reinforcement of existing urban-rural inequalities in access to health care, and possible escalating administrative and health care costs (McPake B., 1993). Furthermore, in developing countries ‘health’ is hardly considered a priority need by households, such as the urban slum households we studied, with income levels barely enough to meet the needs of daily food, shelter and clothing. Moreover, the concept of risk-sharing and its financial implications, such as payments when one is not ill, need an appropriate understanding by the potential subscribers.

Not only health insurance schemes introduce the notion of solidarity across sub-groups of the population regarding payment of direct costs of illness. There exist community financing modes that, for instance, ensure solidarity between the more and the less severely sick through the application of uniform fees per illness episode (Desmet M. et al., 1999). If these fees are graduated by socio-economic levels, such as those we have proposed in the previous section of this Chapter, we obtain a further expression of solidarity, namely between the poor and the less poor. In that section, we also emphasized that payment of a fee-per-episode (of illness or of risk, for instance in antenatal care) increases financial access to referral services for those needing such services and referred by the community-based health centres. A scheme with fees-per-episode compared to one with fees-for-service is much less complex to manage and

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7 ‘Tontines’ means contributions to a fund; ‘mutuelles’ means that these contributions are given in a spirit of mutual help; ‘d’affaires’ indicates that these tontines can be used to set a small business.
more adapted to the abilities of local communities for scheme management, and substantially reduces administrative costs. As payments are made at the time of seeking care, they can be considered as a deterrent for frivolous use, while they do not require the understanding and acceptance of payments dissociated from the time of seeking care as is the case with premiums/contributions in social health insurance schemes. It may, therefore, be preferable to use such fees-per-episode as financing mode to gradually introduce communities in the notions of solidarity, before embarking in full-scale insurance-based financing mechanisms. An alternative is the establishment of simple community health insurance schemes that focus on important health risks which are perceived as such by the community (e.g. maternal risks). Such schemes, if reaching an effective risk coverage, may have more 'visible' outcomes and bring their members to understand more quickly the advantages of risk pooling.

An important notion in the debate about protection of household economies against direct costs is the extent to which the total health care delivery costs in a Health District can be recovered through community financing. Considering the health care delivery costs, strategies have been developed to contain costs through rational use of health care resources in a coherent health care system and to promote community involvement in the system's management, while meeting the health needs of the people in an equitable way (Kasongo Project Team, 1981). Examples in developing countries of two-tier health care delivery systems have shown that it is possible to meet these objectives within a per capita expenditure of less than US$ 10.- per year (Jancoes M. et al., 1985; Pangu K.A., Van Lerbergh W., 1990; Gonsasthya Kendra, 1996). These examples have further illustrated that patient charges may cover about one third of the systems' total recurrent expenditure, and that expenses for the community-based services account for about the same proportion (Kasongo Project Team, 1984; Criel B., Van Balen H., 1994; Gonsasthya Kendra, 1996) These findings indicate firstly, that as patient charges are similar to the expenses of community-based services in the health care system, communities may be able to self-finance this level of services. From a systems perspective, this is also the level they may be able to self-manage, as its level of technicity can be relatively easily understood. Secondly, the findings clarify that subsidies are needed to cover most of the expenses for referral cases at the hospital level, for the management, supervision and monitoring of the District Health Care System as a whole, and a fortiori for higher levels of health care delivery particularly for those referred through the system.

Finally, in view of all the above, it is clear that there is a 'natural link' and synergism between the initiatives that tackle the effects of direct and indirect costs of illness on the household economy. That means that, from a policy point of view, simultaneous action is required in the fields of (1) increasing household income through income-generating activities via micro-credit or savings schemes, (2) re-organising and rationalising health care delivery in a systemic way, and (3) proper health care financing arrangements that aim at protecting households in general, and the most vulnerable in particular, against the economic burden of illness.

11.4 The role of the state in policy formulation and implementation

11.4.1 In health care organisation and financing

The study findings indicate that publicly provided out- and inpatient health services play only a marginal role in providing services to the urban poor, and that this is the more so the poorer the households. These services are not used mainly for economic reasons relating to their geographical centralisation in big teaching hospitals and considerable travel and waiting times. However, these hospitals have a unique role to play in providing higher level specialised referral services.

Besides this level of health care delivery, four other major tasks may be attributed to the state.
Firstly, rather than providing all services, more attention should be paid by the state to develop the health care system as outlined and asked for by the poor above. Thus to design and regulate the implementation of a functional 2-tier health care system, and, ensuring within this system equity, rationality in the use of resources, quality of the delivered services, and participation of and interaction between all concerned.

Secondly, the study findings clearly indicated that there is a need to build new infrastructures at the community level as well as at the first referral level. The first state responsibility in this endeavour will be to ensure that these new facilities are established based on a fair geographical distribution in line with the concept of the Health District. In recent years, an initiative in this direction has been developed by the Bangladesh government bodies and the Asian Development Bank to set up a network of Health Centres in Dhaka-City and the other major urban centres in Bangladesh, thereby removing a major constraint of the use of public services, namely the distance to the facility. There was an input from the researchers team with the study results in the generation of the ideas for this project, including the quest for allowing the population to participate in the choice of the location and the construction of the Health Centres.

Thirdly, subcontracting of health care services where desirable, is to be considered in order to increase the accessibility of health care, to remove possible duplication, and to implement the health care system described above. This is to be distinguished from contracting out some (primarily non-clinical) services in for instance, hospital settings. Here the subcontracting is envisaged of a health facility at either the first or the second level of the 2-tier health care system or even of the entire 2-tier health care system for a given population. Such arrangements have been implemented in several countries in the South, particularly in Sub-Saharan Africa. The World Health Organisation has in recent years elaborated mechanisms to further operationalise this concept (Carrin G. et al., 1998).

Subcontracting services to whom? The findings clearly show that, out of the modern qualified health care options, 'private-for-profit' care, although the most used, is not a solution for the slum dwellers, because it is too expensive for the vast majority of the slum households. Furthermore, due to its 'for-profit' nature, it tends to respond to and even induce irrational demand by the user regarding treatment. The study findings suggest the greatest potential for subcontracting lies with non-government not-for-profit services, whereby a shift in the use may be expected from the private-for-profit sub-sector to the non-government one. The Government of Bangladesh-Asian Development Bank project has for instance made provisions to subcontract the Health Centres to the non-government sector. Because of the public purpose of the latter, such policy is expected to also favour equity goals (Giusti D. et al., 1997). The study findings suggested in this respect that non-government facilities even appear to respond better than the public ones to the equity principle of equal access for equal need. Barriers to the use of non-government care, such as its limitation to a selection of health care activities, long waiting times, and the fact that people do not always know the existence of non-government services should be removed. Finally, the establishment of fully integrated community-based services is expected to also drain away patients from the private-for-profit providers and from the overcrowded first-level services in the higher level hospitals. This in turn should simultaneously result in a more appropriate use and functioning of the hospitals. A simultaneous shift from the traditional providers may be expected when more, and more accessible (modern health care) services, more dedication and respect from doctors and nurses, more medicines and personnel" (van der Geest, 1997) become available. Preference for traditional treatment of some illnesses is likely to continue, as we found that slum people reserve this type of treatment for some specific categories of illness.

Fourthly and not the least, the role of the state as funding source. We highlighted in the previous section that a functional, fully comprehensive and integrated 2-tier health care system can be established within a budget of less than 10 US$ per capita per year. We further stated that local solidarity is able to self-manage and self-finance the community-based services of the system (representing about 25% to 33% of the total cost of the system), while (inter)national solidarity/subsidies fund the referral level hospital and the supervision of the community-based services. We also emphasized that this means that
substantial subsidies will remain vital, if the needs for health care of the urban poor are to be properly met. Political choices will be necessary in order to ensure that the current public funding level is increased and primarily directed to those most in need. Finally, we already highlighted the role of the state in ensuring the establishment of new infrastructures. For this it bears the responsibility for co-funding, whether it be through own initiatives with the population, or in collaboration with institutions, such as the Asian Development Bank, that share the same public purpose with the state.

11.4.2 In the protection of the household economy against the effects of the costs of illness

A first responsibility of the state should lay in the establishment of a legal framework for mutual help associations and co-operatives that aim at increasing household income levels through small business, or at organising community-financing schemes to cover costs of treatment and/or transport.

In view of the synergistic nature of such initiatives, the legal framework could also provide for their combined operations. For instance, part of the increased income through income-generation activities could serve as contribution to community-financing schemes of health care.

The state can also act as an active promoter and awareness-builder of the idea of mutual help associations and co-operatives to NGO's and the communities at large. The state, assisted by interested NGO's, could provide technical support and initial capital to communities who want to start up such organisation.

Finally, as mentioned in the previous section, most of the community initiatives to cover group-based treatment costs are small. Consequently, they have unreliable coverage, as 'insurance... relies on the fact that what is unpredictable for an individual...' (or a small group)... ‘is highly predictable for a large number of individuals’ (Mills A., 1983 (b). Government could promote the expansion within schemes to larger fractions of the population by offering advice on how to structure contributions, while keeping financially sound schemes. Pooling the risks of these schemes can stabilise them through a system of social re-insurance, as has recently been developed on a theoretical basis by the International Labour Organisation, the Université de Lyon in France, and the World Bank. This system of re-insurance could be run by the government or by an NGO. Another means of ‘re-insuring’ is - as mentioned in the previous section - to ensure that severe cases that need more sophisticated technical input and referral care (and usually with the highest costs) are treated free or virtually free of charge. A more difficult task for the state will be to attempt to establish some redistributive mechanisms across schemes in order to avoid large inequalities in benefits within the country.

11.5 A fundamental policy implication

The study findings suggest that the illness burden in the slum population is high and intricately associated to differentials in socio-economic status within this population. Consequently, if the illness burden ultimately is to decrease and consequently the economic consequences of this burden, then the overall socio-economic status of the slum residents in general and of the poorest of the poor in particular, should improve. This requires interventions not only inside the health care sector or the health sector (including water supply and sanitation), but also in other sectors and matters, such as education and socio-economic policies, linking health and social urban policy, and sharing resources between the more and less vulnerable groups of the urban society (Cumper G., 1981; Harpham T., Blue I., 1997).