Coping with the costs of illness in slum households in Bangladesh. An empirical analysis of the relationship between income distribution and household behaviour
Desmet, M.

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PART III

A REASSESSMENT OF THE FINDINGS AND POLICY IMPLICATIONS
DISCUSSION OF MAIN RESULTS

Below we highlight a series of key findings on the costs of illness and health care utilisation, and coping with these costs, recalling where appropriate, evidence from the national and international literature as discussed in Chapter 3.

10.1 Costs of illness and health care utilisation in the case of illness

In a large number of illness cases, the non-use of any type of health care provider was preponderant.

This was one of the most striking key findings of the study as far as use of health care was concerned. Wait-and-see and/or home-care (narrowly defined as proper body care and food) were selected in more than 50% of the minor and 22% of the severe illness episodes. A study from Bangladesh mentioned similar results for rural Bangladesh. In severe illness cases, this use pattern is of particular concern. Unavailability of cash and savings to pay for health care was an important reason for selecting wait-and-see and home-care.

Pharmacies were by far the most used 'modern' health care option, and equalled the use of all modern qualified health care providers combined (private-for-profit, non-government (private not-for-profit), and publicly provided health care). Hospitals were far more used as a primary level contact than as a referral-level facility.

Studies from Bangladesh showed the importance of the private modern health care sector and the inappropriate use of hospitals. In our study, pharmacies as the only health care provider were used in 17% of the minor and 23% of the severe illness episodes; in more than 90% of the contacts with hospitals they were used as a primary level facility. The most preferred modern qualified provider was private-for-profit care; traditional care was as much used as public and non-government care together. In the limited and inappropriate use of modern qualified providers, one recognizes their low contribution to properly treating the health problems of the slum households.

The anticipated high costs of modern qualified health care options were the main deterrent for their use.

In the past decade, evidence has built up that the price elasticity of demand for health services
is higher for poorer sections of the society, such as slum populations. Whereas in our survey direct costs seriously hampered the use of private-for-profit providers (direct costs represented two-thirds of all stated reasons why respondents avoided using the latter), the indirect costs, travel and waiting time, were primarily reported as the main impediment for selecting public and non-government care (35% and 50% of all stated reasons respectively). Despite its relatively high cost, the reported quality of service delivery and easy geographical access of private-for-profit care made it more attractive and contributed to its larger use compared to the other two qualified providers. It illustrated the willingness of poor people to pay for (expensive) services if quality and geographical accessibility are ensured. The study was also able to confirm these findings through quantifying the monetary and time costs of modern qualified health care providers.

Despite their high levels of poverty, slum people spent on curative care about twice as much as the government. Drugs were by far the main cost item in contacts with private-for-profit and publicly provided care.

The slum people spent about US$ 5.- per capita per year for curative care, which was nearly twice as much as the estimated US$ 2.40 public expenditure on curative care. Whereas public services officially only charge low nominal fees, the prominence of drugs in their user cost structure points at considerable (and well-known) operational deficiencies in their functioning.

Only a small proportion of illness cases caused loss of income. The monetary value of this loss as a contribution to total user costs was much higher.

Only 3% to 6% of the illness cases resulted in loss of income, depending upon the type and severity of illness (in contrast, the incidence of direct costs was much higher: in more than 40% and 75% for minor and severe illness cases respectively). The total value of this loss of income represented 55% of the combined direct user costs of illness and loss of income due to illness.

In the months with loss of income due to illness, the monetary value of this loss was much larger than direct health care expenditure. The duration of reduced earning capacity did not exceed 10 days in the majority of the cases.

Loss of income due to illness was found to be on average 5 times higher than direct health care expenditure in the months with such loss of income. It confirmed earlier findings of an in-depth study on a limited number of slum households in another city of Bangladesh. In our study, four out of five cases of reduced earning capacity due to illness concerned periods of reduced capacity of maximum 10 days.

Illness affected the monthly wagers relatively more than the daily wagers. In contrast, the total number of wage-months with loss of income due to any cause was much higher for daily wagers.

Illness was the main cause of loss of income in nearly two-thirds of the cases with such loss in monthly wagers, while it was half that figure for daily wagers. Income of daily wagers as a group, and particularly of those that were working in the open air, such as rickshaw pullers, street vendors, and daily labourers on construction sites, were more affected by environmental factors, such as rains and floods. The total reported number of wage-units with loss of income due to any cause was 13 times higher for daily wagers than for monthly wagers.

1 The terms ‘direct’ and ‘indirect’ costs for the users are no longer used in the more recent handbooks on cost-effectiveness analysis. See Drummond M.F., O’Brien B., Stoddart G.L., Torrance G.W. Methods for the Economic Evaluation of Health Care Programmes. Second edition. Oxford University Press, 1997. For the sake of consistency, we used throughout our study the terms direct and indirect costs. For a detailed explanation of the terminology used in our study, see Chapter 4, section 4.
The slum population is a poor, though heterogeneous micro-society, in which economic status is associated with illness occurrence, health care use and direct and indirect costs of illness.

While the relationship between poverty on the one hand, and health status and health care use on the other hand, is well established at the macro-level, we observed within a poor population such as the slum population, several similar income-related trends in illness occurrence, health care use, and costs of illness. Poorer households experienced higher illness incidences (the severe illness incidence was almost double the one for the best-off households), and a larger use of wait-and-see, traditional care and modern unqualified health care providers (for instance, the proportion of illness cases where no care, even no home-care was sought declined by 40% from the lowest to the highest income quintile). Out of the modern (semi-)qualified providers, only non-government care was used more the poorer the households, in contrast with the trends for pharmacies, private-for-profit and public providers. All the trends related to these (semi-)qualified providers were statistically (highly) significant.

The economic reasons why slum households selected several health care options and others not were also strongly related to the household economic status.

Economic reasons relating to the selection of wait-and-see and the avoidance of modern qualified care became substantially more prominent when households were poorer. For instance, in the poorest quintile, wait-and-see was selected in 40% of the cases because of non-availability of cash or savings, compared to a mere 10% in the best-off quintile. The fear of high direct costs of private-for-profit care constituted in the lowest income quintile 75% of the stated reasons for not selecting it, against ‘only’ 50% in the highest quintile.

Direct and indirect costs were also associated with the income level of the slum households.

The amount of cash outlays and savings to pay for health care in the case of illness, and indicators of reduced earning potential due to illness, including the amount of income lost, were highly income-sensitive. Whereas the loss of income affected much more the poorer households reaching almost 40% of average household income in the months with such loss (compared to ‘only’ 17%), direct health care expenditure exceeded only in the highest income quintile 3 to 4% of total household expenditure.

Expenses per illness episode were lower for females, regardless of the age-group. Modern health care was used less by women, except non-government care; wait-and-see was used more.

The documented evidence in many Asian countries of gender bias against women and girls in the allocation of household resources, including for health, was confirmed by our study findings. Less access to cash, the practice of ‘purdah’ (the religious-traditional belief that women, particularly married women, should avoid contact with other men, and thus be kept inside the house), and the overall lower social status of women in the society may explain the gender-specific health care expenditure and utilisation pattern (which was based on a gender-unbiased selection of illness categories). Additionally, the particular nature of non-government health facilities which target women more than men with their services contributed to their higher use by females. Specific non-government services for women appear thereby to be accepted by the male members of the society.

Homeopathy and non-government care were popular health care providers to treat children. Expenses for comparable illness cases were lower for children than for adults.

Many non-government facilities also specifically aim at taking care of children and therefore,
appear to be viewed as a valid option by slum households for treatment of sick children. The popularity of homeopathy is based on the widespread opinion that its diluted drugs are less harmful for children.

10.2 Coping with the costs of illness

Direct and indirect costs generate different sets of coping mechanisms at household level.

Literature already exists from rural areas, which differentiates the approaches adopted by households depending upon the nature of the costs of illness. Our study now focuses on this phenomenon in the urban poor population.

Factors determining the choice of coping mechanisms also appeared to differ according to the type of costs.

While household income emerged as an important determinant in the selection of coping strategies with the direct costs of illness, the duration of the period of reduced earning capacity due to illness and the type of occupation were found to affect the choice of mechanisms to compensate for loss of income.

10.2.1 Coping with the direct costs of illness

At the household level, sources of financing during illness episodes with lower direct costs were primarily cash outlays and savings, while loans gradually became more prominent with rising direct expenditure.

Though cash outlays and savings covered up to 90% of direct expenses during illness episodes in the lowest category of such expenditure, their contribution gradually declined to around 50% in the highest category. The contribution of loans in contrast, progressively increased. In the literature reference is also made to cash outlays and savings as the first mechanism to cover primarily direct costs of illness. It identifies sales of assets as the second strategy rather than taking loans. In our study, only a very small percentage of direct costs were covered by sales of assets, most likely triggered by the low average monetary value of the assets owned by a slum household and the difficulty to sell off assets, when a 'sudden' need for cash arose, such as in the case of payment for treatment of an illness, especially acute, non-chronic ones. A similar reasoning was found to be valid for the sale of land. No real claim can be made in many cases: according to customary laws, land is only in theory owned by many slum households, as it belongs to the respondents' parents as long as the latter live.

Foregoing consumption of other essential commodities could hardly be established.

Despite the fact that foregoing consumption of other essential commodities, such as food and education, are cited in some literature, we were unable to demonstrate much of it in our study. With regards to staple food, no reduction in consumption could be established during the months with direct health care expenditure compared to those without such costs. A likely explanation was provided by a

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2 We emphasized in Chapter 3, section 3.2 on the financing of the costs of health care delivery in Bangladesh that there are no organised health insurance or community-financing schemes of any significant size that could protect the population against the effects on the household economy of 'sudden' health care costs.
A simulation model showing that staple food was consumed at minimally required levels, irrespective of the presence or absence of these health care costs. A similar approach for other food items revealed that their consumption was only minimally affected in the months with health care expenditure, although real levels of consumption were double those estimated to be the absolute minimum levels (equal to one onion, one raw chili, and a pinch of salt). Some added quality in the food seemed to matter for slum households. Out of all other expense categories, occupation-related expenditure alone saw its consumption reduced to some extent, but only in the poorest households and at higher levels of health care expenditure.

**The use of publicly provided free health care: only a virtual entitlement for slum household coping with direct health care costs.**

Although virtually free provision of health care by public health care services is still the official government policy, particularly aimed at ensuring access to care for the poor, the reality shown by our data illustrated many operational inefficiencies. This resulted in the users often having to pay for much of these services, such as for consultations, including ‘unofficial fees’, for supplies (such as drugs), for travel, and, for time-costs of travel and waiting. In such circumstances, the limited use of these services by poor slum people should not be a surprise.

Slum households also coped with the direct costs of illness by ‘avoiding’ them through the use of no- or low-cost alternatives.

In order to avoid the substantial costs (direct and/or indirect) associated with the use of the (in principle more competent) modern qualified health care providers, slum households turned massively to selecting free or almost free options, namely wait-and-see and home-care. We already highlighted that this behaviour was highly influenced by economic considerations from the slum households; it was also due to the inability of the modern health care providers to properly take care of the health problems of the slum population.

**Income-related analysis could demonstrate (as for illness occurrence, health care use and costs of illness) several trends in the ability of slum households to use entitlements and strategies to cope with direct health care costs.**

Firstly, the probability of taking loans increased with decreasing income levels, particularly at lower levels of health care expenditure. Secondly, the ability to reimburse these loans appeared to be problematic, particularly for the hard-core poor households, who showed chronic negative balances in the household economy, whether there was health care expenditure or not. Recourse to loans in such circumstances to cover health care costs may drag these households in a vicious cycle of indebtedness and impoverishment. The limited duration of the study prevented proper investigation of this process. Thirdly, the difference between real per capita consumption of ‘other food’ items and the theoretically estimated minimum requirement gradually increased with rising household income, thereby limiting for poorer households the possibility to use this consumption as a buffer for coping with direct health care expenditure. A particularly alarming finding was that the better-off slum households seemed to be able to take advantage of the public health care system and consequently to use it in the case of illness more than the poorer slum households. This is a trend contrary to the very raison d’être of a publicly funded and provided health care system.

### 10.2.2 Coping with the loss of income due to illness

“Sacrificing holidays or occasionally leisure time” by the sick income-earner was by far the commonest strategy for daily wagers to cope with short-term (1 to 5 days) loss of income due to illness. It also remained the main coping strategy for periods
of reduction in income-earning capacity between 6 and 10 days.

It is common knowledge that most daily wagers take 1 (mostly) or 2 holidays a week. When confronted with earning incapacity due to illness of less than 6 days, daily wagers, once recovered, were found to compensate the consequent loss of income in nearly 80% of the cases by working on weekly holidays or using leisure time to work longer or to take on a supplementary income-earning occupation. With periods of 6 to 10 days, its contribution decreased to about 40%. The next strategies were accepting a slight drop in income, and in a few cases intra-household labour substitution.

With regards to periods of reduced earning capacity due to illness exceeding 10 days, intra-household labour substitution became the most prominent coping mechanism to compensate for loss of income, followed by accepting (slight) drops in household income.

About 40% to 50% of the coping mechanisms for periods of earning reduction of more than 10 days concerned exchange of labour through intra-household substitution (other household members accepting extra-work who were previously not engaged in income-earning). Accepting a temporary reduction in household income was the second coping strategy.

Mechanisms to cope with loss of income due to illness other than sacrificing holidays or leisure time, accepting a slight drop in income, and intra-household labour substitution, were not important.

Taking loans, using savings, and receiving direct contributions from the employer, were coping mechanisms of clearly minor importance. Out of these three mechanisms, taking loans was the most applied. Furthermore, in more than 10% of the cases of loss of income due to illness, combinations of two coping strategies were applied, mostly for periods of reduced earning capacity of more than 10 days.

In contrast, monthly wagers benefited in the vast majority of the cases from sick leave without effect on their pay, if the duration of earning incapacity did not exceed 10 days.

Related to the fundamentally different nature of the income-earning mechanism of monthly wagers compared to daily wagers, the monthly wagers benefited in 80% of cases from indirect employer contributions under the form of sick leave without pay deductions, if the period of reduced earning capacity was less than 11 days.

Intra-household substitution, and accepting a slight drop in income of monthly wagers were the two other mechanisms with a certain importance.

Much less important choices of mechanisms by monthly wagers concerned intra-household substitution of labour and a drop in household income for the same duration of maximum 10 days of reduced earning capacity. These mechanisms became more important than paid sick leave, once 10 days of loss of income were exceeded.

Daily wagers were much more vulnerable than monthly wagers, particularly with regards to periods of loss of income of less than 10 days.

Whereas almost no monthly wagers were affected by loss of income due to illness during maximum 10 days, daily wagers were found to be obliged to compensate for the loss of income even if the duration of earning incapacity was limited. These short-term periods of incapacity, however, were by far the most frequently occurring.
Child labour, widespread in the slums, was reinforced by the illness of the household income earners. Spouses took on extra work in a limited number of cases.

A small number of children were put into labour as a result of the illness of the usual income-earner. This only added on to the massive child labour identified in the slums. Girls appeared to be more affected than boys. Some studies point at the effects on long-term schooling, when children are taken from school to assist in the household tasks or to work in order to supplement the household income. This could not be documented through our study, because of its limited duration. Putting spouses into labour should have detrimental effects of the rearing of children and constitute a social cost for the household.

10.2.3 About the 'dynamics' of coping.

There is a sequence in the coping strategies with indirect costs of illness, but it is absent in the case of coping with direct costs.

A number of authors described sequences in the mechanisms that households adopt to cope with particularly direct costs of illness, with a number of factors that could alter the sequences, such as the socio-economic conditions of the household. Our findings could only establish a ‘progression’ in the choice of coping mechanisms with indirect costs of illness depending upon the duration of reduced earning capacity and the type of occupation (daily or monthly wager). With regards to the direct costs of illness, no sequence could be discerned.

The uneven burden of costs of illness according to household income demonstrates permanent structural imbalances in the command over endowments and entitlements, which in turn lead to differences in the capacity to cope with the costs of illness.

We have been using a framework for the analysis of coping with costs of illness in essence based on the entitlement theory of A. Sen and further elaborated by amongst others Russell. Sen uses changes over time in entitlement systems (he indicates these changes as ‘failures’) to explain the occurrence of famines, such as the loss of crops by cultivators and a consequent decline in economic activity, related to a local drought, or the absence to command food from elsewhere. This implies that, if these changes would not have taken place, the famines would not have occurred. Our analysis of coping with costs of illness through the entitlement approach implies a situation of permanent structural imbalances in the command over endowments and entitlements. These structural imbalances lead in turn to permanent differences in the capacity to cope with costs of illness among sub-groups in the slum population. However, the lack of provision of free government health care can be interpreted as a failure of command over entitlements.