

**Can households afford to be ill?
The role of the health system, material resources
and social networks in Sri Lanka**

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Abstract

Household ability to pay (ATP) for health care services has become a critical policy issue in developing countries because of changes to health system financing and delivery that are likely to impose higher illness cost burdens on poor households. The research presented in this thesis was driven by widespread concern about ATP among different policy actors, and by the fact that conceptual and empirical understanding of the issue remains poorly developed. The thesis uses a conceptual framework for assessing ATP that is, at its core, concerned with the implications that illness costs and related coping strategies have for household livelihoods. The main research objectives were to measure the household costs of illness, examine the types of asset (e.g. financial, social) that are mobilised to cover illness costs, and to evaluate the impact of these illness cost burdens and coping strategies on household livelihoods in the medium term. In so doing, the thesis aimed to identify factors which make households robust or vulnerable to illness costs which development agencies might support.

Research was conducted in two low-income communities in Colombo, Sri Lanka. A survey of 423 households was carried out to obtain a profile of illness, treatment actions and illness costs in the two communities, and to identify case study households. The main part of the research was to follow 16 case study households for eight months, which enabled in-depth investigation of treatment seeking behaviour, expenditure patterns, asset strategies and their impact on household livelihoods.

The main findings of the research were that free public provision of health services protected poor households from high treatment costs. In particular, public tertiary hospitals protected households against potentially catastrophic treatment costs associated with inpatient care. This enabled households to access treatment without adopting risky coping strategies. However, aspects of the health system failed to protect households from illness costs, and in a context of low and insecure incomes, illness costs did not have to be high to exceed daily budgets and undermine ability to meet basic food needs. Consequently, households often required additional resources to meet illness costs, and people's financial and social resources were shown to be important factors influencing ability to manage illness costs. However, the research also found that income-poor households had weak social resource endowments which forced them into riskier borrowing or asset strategies. Policy actions to support household assets are examined.

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Chapter 1: Objectives and framework of analysis

1.1 Introduction

The research presented in this thesis aims to investigate a relatively unexplored but critical policy issue in developing countries, household ability to pay (ATP) for health services, or the affordability of health care services. Throughout this thesis the concept of ability to pay for health care, defined below, also refers to whether a household can afford to pay for such care. Whether a household is able to pay, or whether it can afford to pay, are therefore the same question conceptually.

This chapter provides an overview of the concepts, frameworks, objectives and methodology used in the research. Section 1.2 defines the conceptual approach to ability to pay (ATP) used in the thesis, and section 1.3 summarises the policy context for the study that drove the research, which is derived from a wider literature review in Chapter 2. The research questions and objectives are set out in section 1.4, and section 1.5 presents the conceptual framework for the study, which is also derived from the literature review in Chapter 2. Section 1.6 briefly summarises how the approach to ATP and the research objectives influenced the research methodology adopted. Section 1.8 then describes the thesis structure, in terms of the analysis as it is presented across chapters, and how each chapter links back to the objectives, and the variables or relationships set out in the conceptual framework.

1.2 Approaches to ability to pay

Conceptual and empirical understanding of ATP remains poorly developed. This is because research on the subject has largely been based on conventional economic analysis, that has approached the question from a demand perspective. This demand-based approach assumes people are able to pay, or can 'afford', whatever they are willing to pay. This section draws on the relevant literature to illustrate demand-based approaches to ATP, and to demonstrate they leave important questions unanswered about the implications of health expenditures for household budgets, spending patterns

or borrowing and asset strategies that might be adopted to mobilise resources to pay for care. An alternative approach to ATP which can address these questions is then defined.

1.2.1 Demand-based approaches to ATP and gaps in knowledge

Economists have used the concept of demand to examine ATP, since demand is defined as both willingness and ability to pay. Consumers are assumed to be able to pay whatever they are willing to pay, because they know best how to allocate their resources. By assuming that willingness to pay (WTP) is synonymous with ATP, economic analysis can cite people's utilisation of and payment for health services as evidence of ATP.

Expenditure and utilisation studies

During the 1980s, the widespread introduction of user fees for health services in developing countries stimulated numerous demand-based studies on ATP. These investigated (a) household expenditure on health services (and the elasticity of demand for health care), or (b) the impact of fees on service utilisation. People's sensitivity to prices, or changes in utilisation following the introduction of fees, were then cited as evidence of ability to pay, or inability to pay, for health services. These two types of study are briefly reviewed below to illustrate the demand-based approach^{1 2}.

In the 1980s household expenditure surveys were used to develop econometric demand models to predict the elasticity of demand for health care, and the poor's sensitivity to price changes. Different studies were used to argue opposite positions with respect to people's ability to pay fees at government services: that price or income have little influence on the poor's demand for health services, indicating the poor are willing (and therefore able) to pay for health services (Akin et al. 1986; Heller 1982); or that the poor are sensitive to prices (and therefore unable to pay higher prices), because they would reduce utilisation proportionately more than the rich in response to higher prices (Gertler et al. 1987; Gertler and van der Gaag 1990).

¹ The evidence from these studies, which overall raised concern among policy-makers about the impact of fees on poor households' budgets and service utilisation, is reviewed more fully in Chapter 2. This chapter reviews these demand-based studies mainly to highlight the approach to ATP.

² A third category of study was contingent valuation surveys, used to measure hypothetical willingness to pay (WTP) for specified services.

Evidence from descriptive expenditure studies, which showed a large proportion of the population were spending money on health care, were also used to justify the introduction of user fees at government health facilities (World Bank 1987).

Other demand-based studies have evaluated the impact of user fee increases on facility utilisation, comparing utilisation patterns before and after the introduction of fees. The majority of these 'field experiments' report declines in utilisation following the introduction of fees across national health systems (Bennett 1989; Booth et al. 1995; Hongoro and Chandiwana 1993; Moses et al. 1992; Mwabu et al. 1995; Thomason et al. 1994; Waddington and Enyimayew 1989, 1990; Yoder 1989). These data show that sections of the population were unwilling to pay more for the health care services provided, but have also been cited as evidence of inability to pay for health care.

However, a drop in utilisation recorded at a facility does not allow firm conclusions to be made about ATP, because people's responses to price changes are likely to be influenced by other factors, in particular the quality of care obtained at that new price, or the availability of other providers. A drop in utilisation recorded at a health facility following a price rise may reflect an unwillingness to pay for that service at a higher price, rather than an inability to pay. One possibility is that people may shift to other providers, for example evidence from Ghana and Swaziland suggests people shifted to mission providers after fees were increased at government providers (Yoder 1989; Asenso-Okyere et al. 1998). Another factor explaining a drop in utilisation is that people may have money available, but are unwilling to pay higher prices because they perceive the service to be poor quality and poor value for money – a 'can pay, won't pay' situation. This problem has been widespread in Sub-Saharan Africa following fee increases because service quality has been slow to improve. For example in Zambia, Uganda and Ghana poor people reported that the journey to the clinic, the long waiting times, the rude staff and the unpredictable drug supplies were not worth the extra price. In particular they resented 'paying twice': once for the registration fee at the government facility; and then again when they are told there are no drugs available and they have to go to the nearby private pharmacy. Their decision to stop using services was on the grounds of poor value for money, rather than inability to pay per se (Asenso-Okyere et al. 1998; Booth et al. 1995; Lucas and Nuwagaba 1999).

Some studies have reported utilisation increases following the introduction of fees, even amongst the poor, in situations where fee revenue was used to improve drug availability and perceived quality (Jancloes et al. 1982; Knippenberg et al. 1990; Litvack and Bodart 1993). In Cameroon, the study by Litvack and Bodart (1993) has been particularly influential, because it disaggregated utilisation impact by socio-economic group, and found that improved drug availability led the poor to increase utilisation disproportionately compared to other groups. This counter-intuitive finding is explained by the relative affordability of health care at local government health centres compared to the more distant providers which were previously being used. These data have been used to argue that the poor are willing to pay for health care, and that this reflects the group's ability to pay. However, although increased utilisation reflects a willingness to pay, these studies do not consider the financial implications of health care spending for the household, with respect to three questions listed at the start of section 1.2.

A second type of demand-based approach uses expenditure : income ratios to examine ATP. It partly addresses the problem above by providing a measure of the burden of health care spending on household budgets. This reflects concern about the *opportunity cost* of health expenditure: if a household spends more than X% of its budget on health, the ratio approach implicitly warns that the household's command over other commodities will be reduced. A 5% health expenditure : income ratio is a common benchmark of affordability because most health expenditure surveys in developing countries show that a 'typical' household spends between 2–5% of income on health care (Barton and Bagendra 1995; Huber 1993; Sheperd and Benjamin 1988). Similar 'affordable' ratios are commonly cited in the water sector (McPhail 1993).

Nevertheless, the ratio approach does not disclose the implications of health care spending for the household. A well-off household may spend 20% of its income on health care but may only have to forego 'unnecessary' commodities. In contrast an income-poor household may spend less than 5% of its income on health care but have to make damaging cutbacks to basic needs such as food consumption and education, or may be forced to borrow or sell assets. This is the core issue for ATP as understood in this study.

Gaps in knowledge

Demand-based approaches have left four main conceptual and empirical gaps in knowledge concerning ATP that are addressed in this thesis:

1. The implications of health expenditure for household budgets and other spending priorities: Although decision-makers in a household may be willing to pay to treat a sick member, the decision to seek care is a complex one and in cases of serious illness treatment might be sought despite cash shortages within the household. People may be willing to pay, despite a lack of cash, because illness may be causing emotional stress, disability or loss of income. To pay for treatment, the household may have to make damaging cutbacks to other basic needs such as food consumption and education. In other words health expenditure has opportunity costs with respect to basic needs.

2. The strategies households adopt to mobilise resources to pay for care: The household may be willing to pay for treatment but not have the cash available. In this situation decision-makers may have options to mobilise resources, for example to borrow, use savings or sell assets to obtain the money.

3. The impact that these health expenditures and coping strategies have on household livelihoods, in terms of expenditure patterns, debt levels and assets: A willingness to pay for health care may have harmful implications for household assets, income or expenditure patterns. High levels of health care expenditure and related coping strategies may start a process of asset depletion and impoverishment (Corbett 1989; Gilson 1988).

4. Production or wage losses due to illness: In addition to health expenditure, illness can also impose income or production losses (indirect costs) if an economically active individual falls ill. Even if the sick individual is not a breadwinner, income can be lost if other wage earners have to care for that person. Illness-related income losses have serious implications for ATP, because they may trigger similar spending cuts and borrowing or asset strategies, and have serious implications for household livelihoods. Moreover, ATP problems will be exacerbated if, at the time of illness when additional treatment costs must be met, the household has no cash income or a reduced income (Corbett 1989, Pryer 1989, 1993).

The conclusion arising from this critique of demand-based approaches is that ATP is more complex than WTP, requiring an in-depth understanding of household income, spending patterns, coping strategies and their implications for livelihoods. These

questions are only partially covered by demand or WTP approaches, and an alternative approach based on basic needs and livelihood approaches is set out below.

1.2.2 Ability to pay: opportunity costs, basic needs and livelihoods

The four questions or issues above form the basis of an alternative approach to ATP that is, at its core, concerned with the implications of health expenditure or lost wages due to illness for household livelihoods. This approach draws from the work of Fabricant (1992), Hancock (1993) and McPake et al. (1992), but is the product of the author's synthesis of this work and conceptual thinking (Russell 1996). The first premise of this conceptual approach is that health care is a basic need for which people may feel they have no choice but to pay if they are to prevent suffering, risk of death or disability, emotional stress or production and wage losses.

Consequently the second premise of the approach adopted here is that people's WTP for health care is not synonymous with ATP, because household members may be forced to make sacrifices in other areas (for example basic needs such as food, education or housing) to release cash for treatment. If the household does not have cash available, it may be forced to borrow, beg, use stores or sell productive assets, strategies with potentially harmful implications for future income, consumption and investment patterns, and vulnerability to future shocks.

Figure 1.1 illustrates this alternative approach to ATP, particularly the first of the four issues listed at the end of the last section concerning *the implications of health expenditure for other spending priorities* (or the opportunity costs of health spending with respect to basic needs). It is based on assumptions and simplifies complex and dynamic processes of decision-making, but reveals some of the research questions generated by the approach. The following are assumptions:

- for the moment the diverse and complex decisions open to households are simplified down to two consumption or expenditure dimensions, health care commodities and non-health commodities;
- certain levels of health care, and a certain quantity of non-health care commodities, are considered basic needs;
- H1 represents a household's basic or minimum health care needs; Y1 represents the household's other basic or minimum commodity needs such as food, shelter or

education. Basic health and other commodity needs could be externally defined by society or professionals, or be defined by the household or community in question. The difficulties of establishing basic needs, particularly health 'need' are put to one side.

Point E in Figure 1.1 represents a minimum need consumption bundle for a household. The diagonal line SS represents a simple consumption possibility (budget constraint) line, which is exactly enough to allow the household to purchase the minimum consumption set E. The position of this budget constraint is determined by available income, and the slope of the curve by the relative prices of Y and H.

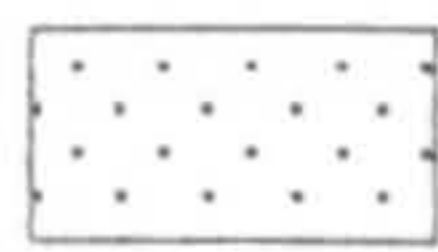
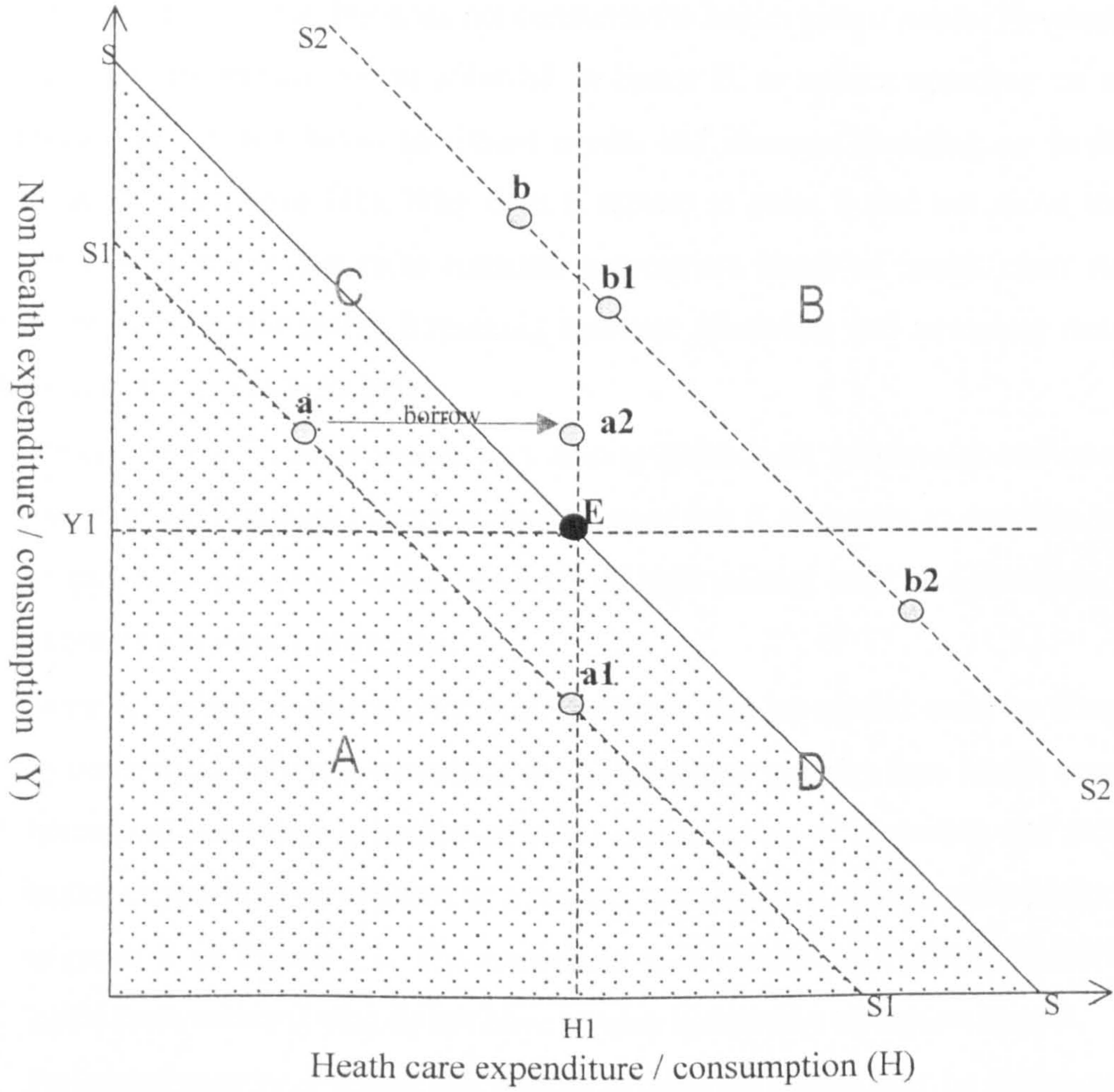
The diagram is divided into four quadrants or spaces (A-D), and a household faces a different ATP situation in each space.

Space A: a household in this space is unable to pay for or consume the minimum level of health care it needs, and the minimum level of other goods and services. Any household in this space faces an ATP or affordability problem

Space B: conversely, a household located in space B is able to pay for or consume a level of health care above minimum needs, and in addition a level of other goods and services that is above minimum needs. Any household in this space is able to pay or can afford health care.

Spaces C and D: As a result of the income constraint, households within the shaded parts of spaces C and D, but not on the budget line SS, cannot reach the minimum consumption set E. A household is able to consume a sufficient quantity of one of the two commodities (H or Y), but an insufficient quantity of the other. For example a household with a more restricted income or budget than SS, with a consumption possibility line S1S1, might be located at point a: here it consumes enough non health commodities (i.e. it is above Y1) but cannot afford the health care it needs (it is below H1). It could only purchase the health care it needs (H1) by moving along its own consumption possibility line to point a1, cutting expenditure on other goods and services to a sub-minimum level. The situation of the household at a1, or any point further to the right in the shaded part of Space D, is one where the household may be willing to pay for health care, but would be unable to pay if opportunity costs are taken into account.

Figure 1.1: Ability to pay for health care: an abstract illustration



Households in this area face ATP difficulties due to budget constraints

A household in the unshaded parts of Spaces C and D raises more complex questions about ATP, because it has enough income to shift to Space B but has not done so. For example a household with a less restricted income or budget than SS, located on the consumption possibility line S2S2, might be located at point b: here it consumes enough non health commodities but does not consume the health care it needs. However, it could move along its budget line to point b1 in Space B, to reduce spending on non-health commodities but not below minimum needs, and increase spending on health care to adequate levels (above H1). Why does it remain at point b and not move to point b1 where it allocates resources to consume appropriate levels of health care? A complex range of factors influencing household resource allocation and treatment decisions are likely to operate. These include:

- *Perceived needs and priorities vary among individuals, households and communities:* for example household decision-makers may feel it necessary to sacrifice health care to pay for a perceived social necessity of high priority such as a marriage, a funeral ceremony or dowry payments.
- *Intra-household resource allocation decisions:* the household must be disaggregated to understand why non-essentials are given higher priority than health care. A male household head may prioritise personal consumption of cigarettes and alcohol over health expenditure on children or a spouse, resulting in a consumption position similar to point b in Figure 1.1. The household as a whole can 'afford' health care, but individuals within it who do not have a voice in resource allocation cannot.
- *Perceived severity of illness and quality of care:* the illness may be perceived to be so severe that payment for treatment is not considered worthwhile because it will not prevent death; or if the quality of care is perceived to be poor and ineffective, non-essentials may also be purchased at the expense of health care.

If the household moved along its budget line to b2 in the unshaded area of Space D, it is in a situation of spending more on health care services than 'needed', forcing sacrifices in its consumption of non-health care commodities. This might arise for similar reasons to those outlined above. Decision-makers may perceive that expensive treatment is needed, or an economically active household member may try and save time by seeking quicker but more expensive (usually private) treatment, forcing cuts to spending on other commodities that may impinge on other members' well being (Coreil 1993).

So far this abstract analysis has looked at expenditure, and shows that the opportunity cost of health care spending, in terms of a household's ability to consume other basic needs, is central to ATP. But a second core question for ATP analysis asks 'where does the money come from', or 'which resources pay for care'. For example if a household does not have enough money to pay for health care unless it cuts consumption of basic needs such as food, an alternative strategy would be to borrow money to pay for health care so as to sustain consumption levels above basic needs. In Figure 1.1 the household located at point a could borrow money to pay for health care and move beyond its normal budget line (S1S1) to point a2, rather than move along its budget line (S1S1) to a1 which involves cutting consumption of basic needs.

Another core feature of ATP analysis, concerning *the impact that health expenditures and related coping strategies have on household livelihoods*, cannot be represented by these ATP graphs. Instead, a conceptual framework that uses a livelihood framework is used to guide research questions and analysis about the relationship between illness and livelihood change (see section 1.5).

Overall, the ATP approach outlined in this section asks questions about household spending patterns, coping strategies in response to illness, and their implications for livelihoods. Interpretations or judgements about ATP will therefore be based on analysis of these livelihood implications (see Box 1.1).

Box 1.1: Assessing ability to pay from a basic needs and livelihood perspective

The following are the implications of health expenditures operating at the household level that can be used to interpret or judge ATP:

- The financial costs of treatment (all health expenditure on treatment, including transport) do not deter utilisation or force the user to go to providers that they consider ineffective.
- Health expenditures do not force prolonged (over a month) sacrifices to other basic needs, either consumption needs (food, fuel) or investment needs (education, enterprises, shelter).
- Health expenditures do not cause households to deplete savings or other stores that contributes to greater vulnerability to future shocks.
- Health expenditures do not cause households to deplete productive assets that threaten income or livelihood sustainability.

These processes and implications are therefore central to the ATP analysis in this thesis. In addition, wage losses due to illness are also central to the ATP analysis because they may trigger the same processes and economic implications.

1.3 Policy background: why is ATP a concern for health policy?

The research presented in this thesis was driven by the conceptual and empirical gaps in knowledge on ATP discussed in section 1.2.1. It was also driven by the fact that ATP is highly relevant to health policy debates in developing countries. The need for more knowledge about ATP has arisen because of changes to health system financing and delivery in developing countries, which have made ATP an important concern for policy-makers, NGOs and other actors in the health and development field. The following are the main processes that have given rise to concern about ATP for health care.

Firstly, specific *health financing reforms* during the 1980s and 1990s, notably the widespread introduction of cost recovery policies across sub-Saharan Africa which took two main forms: national user systems implemented at tertiary, secondary and primary levels throughout the country; and; community financing or revolving drug fund initiatives at primary and peripheral levels of the health system, which were usually locally organised but often supported and coordinated at national level (Bennett and Ngalande-Banda 1995; Gilson 1997; Nolan and Turbat 1993).

Secondly, structural adjustment and more *general processes of privatisation* in the health sector, notably an expansion of private sector providers in developing countries and increasing utilisation of these services. These processes stemmed from macro-economic liberalisation and relaxation of government regulations that had previously restricted private practice (Bennett and Ngalande-Banda 1995; Ngalande-Banda and Walt 1995). Private sector expansion was also caused by the deterioration of public health services following economic recession and resource shortages in many developing countries during the 1980s.

Evaluations of these policy changes from the 1980s onwards generated concern about the poor's access to health services, and the burden that fees or other health care costs were imposing on household budgets (see section 2.2 for references). By the mid-1990s the weight of evidence, reviewed in several studies, showed that user fees were deterring poor people from seeking treatment. Other demand studies measured health spending as a proportion of income for different socio-economic groups, and the overwhelming conclusion of these studies was that the poor pay more, certainly as a proportion of their lower incomes, but in some cases in absolute terms.

There is now a recognition among donors and health policy analysts that user fees in developing country contexts are likely to deter access and impose damaging cost burdens on poor households. Policy debates, at least at the level of international agencies or donors, have shifted towards a search for ways of risk-sharing and limiting health care cost burdens for the poor. But despite this shift in policy dialogue, ATP remains a key concern in developing countries for several reasons:

- user fee policies have become well established and continue to operate in many developing countries, and exemption systems continue to be ineffective
- alternative financing mechanisms that pool resources and reduce treatment costs for the poor may still be unaffordable
- government resource shortages in many developing countries mean that public health services continue to face drug and staff shortages, giving poor people little choice but to use private providers or go without treatment.

In Sri Lanka the government has not introduced a user fee policy within the context of structural adjustment, and continues to provide health care services free at the point of delivery. But health care costs and ATP are likely to have become a more widespread problem since the late 1970s because of public sector resource constraints and the rapid growth of the private sector.

This summary of policy contexts that justified research on ATP anticipates a fuller review of policy context in Chapter 2 (section 2.2).

1.4 Research questions and objectives

In light of the above gaps in knowledge and concerns about ATP, the research presented in this thesis has two broad aims: to develop conceptual understanding of ATP for health care in one context, urban Sri Lanka; and develop frameworks and methods to evaluate ATP in other contexts.

This study shifts the conceptual approach to ATP from a demand perspective to one based on basic needs and livelihood assets. In so doing it shifts the focus of analysis from the facility to the household and asks five core questions:

- what financial (direct) and time (indirect) costs are incurred by households as a result of illness?;
- what strategies do households adopt to manage or cope with these costs of illness?;
- what health financing and delivery configurations protect the poor from high illness costs, and therefore prevent asset depletion or indebtedness caused by illness?;
- what material assets and social assets (see Box 1.2) increase household resilience when faced with payment difficulties?;
- what consequences do illness costs and coping strategies have for household assets, income and expenditure patterns in the medium term (1 year)?

In order to address these concerns the research presented in this thesis had the objectives set out in Box 1.3.

Box 1.2: Social assets: a brief definition

This brief account of 'social capital' anticipates a fuller review of literature in Chapter 2 (section 2.3.2).

The approach to ATP used in this thesis (section 1.2) focuses attention on the resources that households draw on to pay for treatment, and the resource consequences of these actions. Asset frameworks, reviewed in Chapter 2, show that both tangible and intangible assets are important for household livelihoods. These intangible assets include social relationships and networks that provide opportunities and entitlements, conceptualised as 'social capital'.

Like many development terms, social capital is difficult to define and its significance disputed (Fine 1999, Woolcock 1998). However, the concept of intangible resources and social capital is not new to social scientists, particularly anthropologists, and from debates in the literature the following definition of social capital is used in this thesis:

“Social capital is defined as the norms and social relations embedded in the social structures of society that enable people to coordinate action and achieve desired goals” (Narayan 1999: 6).

This definition draws from several other pieces of work on social capital, for example Putnam (1995) defines social capital as:

“...features of social organisation such as networks, norms and trust, that facilitate coordination and cooperation for mutual benefit” (Putnam 1995: 66).

In this thesis a household's social 'capital' endowment is usually referred to as its social assets, but the terms are interchangeable. Social assets are relevant to ATP research because people can use their social relationships and networks to make claims and obtain resources. In other words social assets are likely to be an important informal insurance mechanism against shocks such as illness.

Because it inheres in relationships between different actors, social capital can be analyzed at different interface levels. The research presented in this thesis focuses on social assets at the micro-level relevant to household ATP: firstly, *inter-household relations and social networks* that can be drawn upon to access resources at times of illness; and secondly, *neighbourhood groups and community-based organisations (CBOs) that provide financial services* that can be drawn upon to access resources at times of illness.

Box 1.2 Research objectives

1. To measure the household costs of illness and the financial burden these costs impose on household budgets.
2. To explore the types of coping strategy adopted by households when faced with illness costs.
3. To evaluate the impact of illness cost burdens and coping strategies on household assets, income and expenditure patterns in the medium term.
4. To identify factors which make households robust or vulnerable to illness costs, focusing on the role of (a) the health system (b) material resources, and (c) social resources.
5. To develop conceptual understanding of and methods to assess the affordability of health care services.
6. To inform Sri Lankan and international policy debates on health financing mechanisms, focusing on the factors which make households robust against illness cost burdens which government, NGOs and donors might support or enable.

1.5 Conceptual framework

The conceptual framework used in the research is set out in Figure 1.2. It was developed using the following areas of literature reviewed in Chapter 2:

- *livelihood and asset frameworks*: this material was used to locate the approach to ATP for health care within a livelihoods framework, and provided a typology of material and non-material assets which households use to pay for health care (section 2.3.1)
- *social assets or social capital*: this material was used to explore the particular relevance of social assets to the study, and to establish the main levels and features of social assets to be investigated (section 2.3.2);

- *more specific models in the health sector literature that focus on the resources households use to pay for treatment and 'produce' health* (section 2.3.3);
- *empirical evidence relevant to ATP as understood in this study, that looks at how households have coped with illness and its costs* (section 2.4)

The research is therefore eclectic in its choice of the frameworks and evidence used to guide fieldwork and analysis, drawing from a variety of disciplines. This is because households, and the resources they draw on to meet the costs of illness, are complex and not best understood through a single disciplinary lens (Berman et al. 1994; Wallman and Baker 1996). Indeed this has been the problem of the economic studies reviewed in section 1.2.1, that approached ATP from only a demand perspective and equated it with willingness to pay. This study therefore draws on different disciplines to show the range of assets that households use to manage illness costs, and to show that ATP is not just a question of payment, but concerns the implications of these payments for other areas of the household economy.

Figure 1.2 sets out the main levels of analysis of research (individual and household, community and health system levels), and the main variables and relationships that were researched.

Individuals and households

To measure the household costs of illness, the research must first consider the different individuals within the household, their perceived illnesses, their responses to illness, and the household resources allocated to their treatment. In other words the household is not assumed to be a monolithic unit with aggregated preferences (or a joint utility function), undifferentiated by gender or age. The research was open to variations within the household, with respect to decisions about treatment, or how resources are used within the household. For example, the research considered whether wage earners in the household were given higher treatment priority than non-wage earners. It also examines how male spending in the household influences the level of cash that women have available to meet food and treatment costs for the family.

Despite sensitivity to intra-household variations, the main unit of analysis was the household. For the purposes of this research a household is defined in terms of residential proximity and domestic function (based on Lomnitz 1977):

A group of individuals who share the same residence or room, contribute money to household expenses or their labour to domestic tasks, or share the consumption of meals ('eat from the same pot').

Those working abroad or temporarily absent (for more than 6 months) are not considered household members, although any cash remittances are included in calculations of household income.

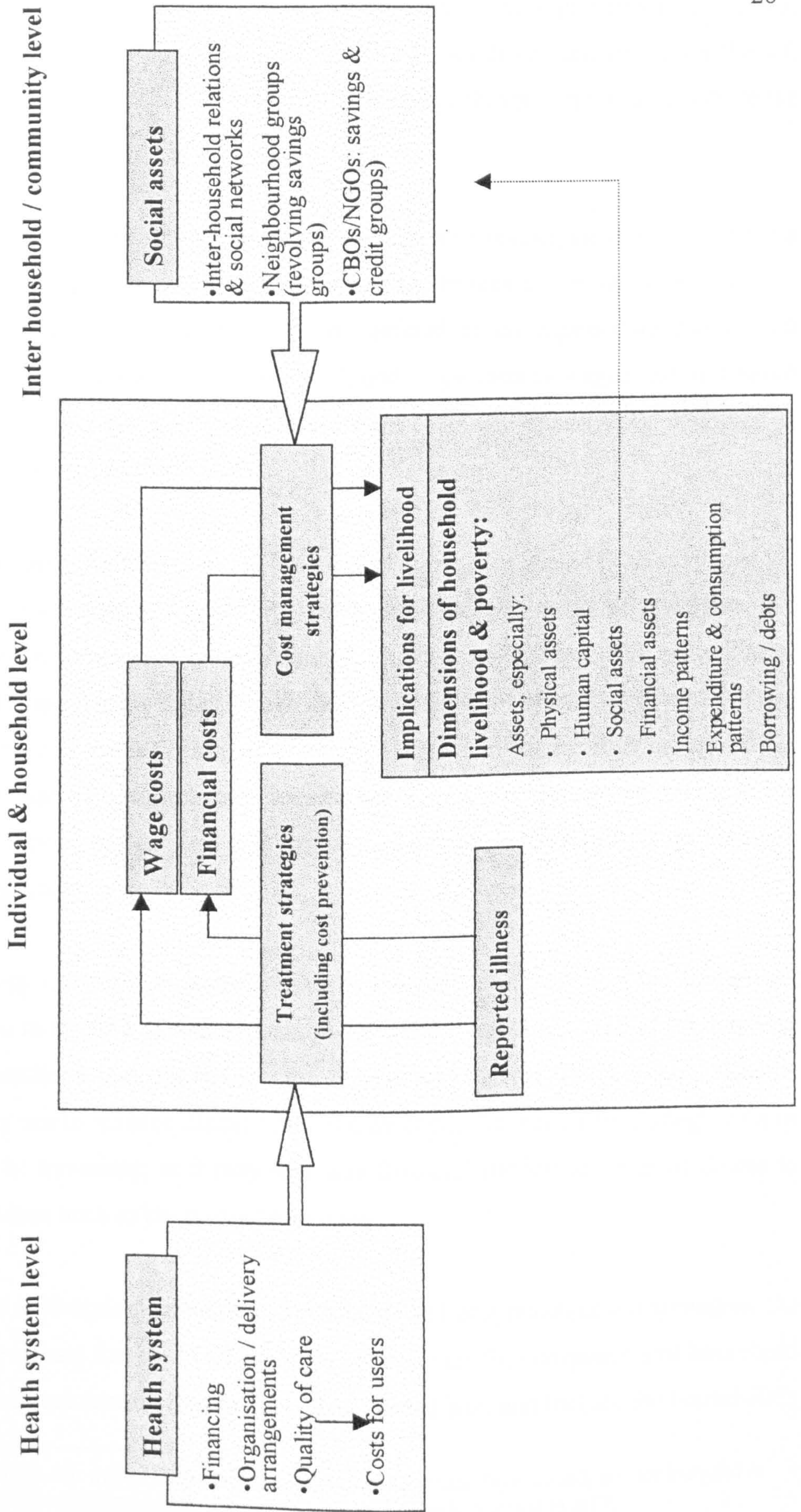
The household was the main unit of analysis for several reasons:

- the costs of illness fall on a household budget, and no matter the degree to which it is unequally allocated, and over time a household is likely to face the financial burden of numerous sick members (Berman et al. 1994);
- the costs of illness do not only fall on the sick, but on other household members who care for the sick or accompany them to get treatment (Sauerborn et al. 1995);
- decisions about treatment or how to cope with illness costs are usually household decisions arising from discussion and negotiation amongst a 'therapy management group' (Berman et al. 1994).

Thus treatment seeking behaviour, the costs of treatment and strategies to cope with them are best understood within a household framework, but one that still allows for analysis of difference within it (Berman et al. 1994; Sauerborn et al. 1996a).

In Figure 1.2 the large box in the centre of the diagram contains the variables and processes to be researched at the household level. To investigate the costs of illness, and how households manage these costs, the research must first investigate the illnesses that are experienced by household members. The research tools that are used in the study will record the illnesses that households report, or their 'perceived illness'. A reported illness will be defined as chronic if the illness they report is clinically defined as chronic (e.g. diabetes), if the reported illness has persisted for over 1 month, or if it is explicitly reported as a 'chronic' condition by the respondent.

Figure 1.2: Analytic framework used in the research (design and analysis)



Moving clockwise around the box, once an illness is reported the treatment strategy adopted, which may be based on decisions made by other household members, will be investigated. This strategy may be not to seek treatment, thus preventing any illness costs, or may involve complex interactions with the health system, shown on the left hand side of the diagram. The health system is therefore shown as a resource outside the household on which households can draw.

If action is taken in response to illness, the research will investigate the costs of these actions. Figure 1.2 shows that these illness costs are broken down into financial costs and wage or time costs. Financial costs are defined as *all expenditure linked with seeking care* (including transport, prayer etc.), and wage costs as *wages lost as a result of days off paid work due to illness*. These illness costs will therefore be measured in terms of money spent or money lost³.

Continuing to move clockwise around the diagram, the next variable to be researched is labelled 'cost management' strategies, which refers to the range of strategies that households adopt to manage either financial or wage costs associated with illness. Financial cost management strategies are likely to be used because the costs of seeking treatment go beyond routine household budgets. This could trigger cuts to expenditure in other areas, use of savings, asset sales or borrowing. To manage or minimise the wage costs of illness, a household may ask somebody else in the family to do the work or hire in extra labour.

Households may use various assets to manage the costs of illness, but the framework draws attention to the role of social assets, shown on the right hand side of the diagram. As with the health system, these are a set of resources outside the household that the household may use to manage illness costs: it may obtain financial help through gifts or credit to pay for treatment; or it may seek non-financial support at times of illness to help with activities such as child care or cooking.

Having looked at treatment strategies, illness costs and cost management strategies, the research will evaluate the implications of these processes for components of household livelihood. These are summarised in the largest shaded box, and include the household's

³ Unpaid activity days lost due to illness (e.g. household work, school days missed) are not included in quantitative calculations of illness costs because they are not directly relevant to ATP.

assets, expenditure patterns and debt levels. The different types of household asset that are listed are derived from the literature review in Chapter 2, and include human, physical, financial and social assets. The study therefore goes beyond analysis of illness costs and coping strategies, to examine the medium term impact of illness costs on household livelihoods and poverty: as a result of illness savings may be depleted, expenditure on other essential goods may be foregone, or debt levels may be higher.

Community

A second level of research was the ‘community’, a term used here to refer to a specific *area* in which fieldwork was conducted. In depth understanding of the contexts in which people pursue their livelihoods and manage illness is important, because many of the resources that people draw on to seek or pay for treatment will be ‘outside’ the household (Berman et al. 1994; Wallman and Baker 1996). The framework therefore requires understanding of the resource contexts in which households are located which mediate household ATP for health care. The research presented in this thesis focused on social assets in the community at two levels: *inter-household relations and social networks* that can be drawn upon to access resources at times of illness; and the *neighbourhood groups or CBOs* that provide savings and credit services.

Health System

The third level of research was the health system, viewed from the individual’s perspective. People’s perceptions of quality of care at different types of provider, and other factors influencing their treatment strategies were investigated, because their preferences and use of certain types of provider are an important factor influencing illness costs. Facility-based research was not conducted given the study’s focus on household experiences.

1.6 Methodology

The approach to ATP and the conceptual framework outlined above had implications for the research methodology adopted. These are briefly summarised below and described in detail in Chapter 3.

1.6.1 Exploratory research

From a basic needs and livelihood perspective the question of ability to pay remains relatively unexplored, both conceptually and empirically. There is also limited empirical evidence about the factors influencing ATP, particularly with respect to the nature and role of social assets in influencing vulnerability. Consequently the research methodology selected leaned towards an exploratory design, rather than an experimental or hypothetical-deductive approach. Fixing hypotheses may have prevented the openness required for the study and the identification of unexpected but important variables.

Although it was not possible to develop strict hypotheses without limiting the scope of the research, the approach to ATP and the conceptual framework outlined above identified a range of variables and possible relationships that guided the research, with respect to focusing both the fieldwork and analysis of the data.

1.6.2 The importance of depth and context

The ATP approach used in this thesis, and the research objectives, require *in-depth case study research at the household level*, and an *extended case study approach*. This is because the questions they ask require in-depth empirical investigation of illness costs and their implications for income and expenditure patterns, whether and how households mobilise assets to cover the costs of illness, and the implications of these costs and strategies for livelihoods over a given time period (in the case of this study about one year).

Secondly, the conceptual framework and ATP approach *require a methodology that can generate in-depth understanding of household contexts*, because of the range of assets outside the household that people draw on to pay for health care. An understanding of context is also important because of the basic needs approach to ATP: in order to evaluate whether a household can meet its basic needs after paying for health care or losing wages due to illness, understanding of household priorities and perceptions of basic needs in that context is required.

The importance of understanding context meant the fieldwork, conducted in Colombo, was restricted to only two sites to enable the principal investigator (PI) to make daily

visits and develop relationships with a range of people in each area. The extended nature of fieldwork in each area also meant the PI developed links with CBOs, became involved in some of their activities, and also set up an English class in each area following requests from local residents.

1.7 Outline of PhD structure

This section describes the thesis structure, in terms of the analysis as it is presented across chapters, and how each chapter links back to the objectives, and the variables or relationships set out in the conceptual framework (Figure 1.2).

Chapter 2 presents a review of literature that has three main purposes: (a) to review the international and national (Sri Lankan) literature that provides the health policy contexts to the study and justifies research on ATP (section 2.2); (b) to review the literature on livelihood and asset frameworks that informs the study's conceptual framework, and (c) to review evidence on ATP as understood by this study, to identify gaps in knowledge about ATP and also to inform the conceptual framework and methodology.

Chapter 3 presents and justifies the research methodology and methods used in the study.

Chapter 4 is the first chapter to analyse the data collected, and describes the two urban communities where the research took place, and the 16 case study households that are the foci of analysis in Chapters 5-9. It uses the livelihood and asset frameworks developed from Chapter 2 to set out the *livelihood resource contexts* that influence household asset portfolios in the two areas. These include the physical assets, social assets, financial assets and the health services available to people in each area. These descriptive accounts highlight the contexts that influence household vulnerability to financial contingencies such as illness, and provide the contextual material relevant to analysis in Chapters 5-9.

Chapter 5 presents an overview of the main variables relevant to ATP that are set out in the conceptual framework in Figure 1.2, using data primarily from the household survey. It therefore addresses objectives 1 and 2, by measuring the household costs of illness and the burden these impose on household budgets, and exploring the strategies adopted by households to cope with these costs. Community-wide data from the

household survey are presented at this stage of the thesis to provide a broad profile of illness patterns, treatment seeking behaviour, illness costs and cost management strategies in the two study areas. The chapter focuses on the distribution of illness cost burdens across households in each community. These distributions inform analysis of case study household illness costs in Chapter 6, because they can be 'nested' within the wider distribution to assess whether their illness costs are low or high relative to other households in the community.

Chapter 6 traces the links between illness cost burdens and changes to components of household livelihood over 8 months, using data from the 16 case study households. Chapter 6 therefore addresses objective 3 by evaluating the impact of illness cost burdens and coping strategies on household assets, income and expenditure patterns in the medium term. Referring to the conceptual framework in Figure 1.2, Chapter 6 preempts a detailed analysis of treatment or cost management strategies (Chapters 7, 8 and 9), to consider the overall impact of illness cost burdens and cost management strategies on case study household livelihoods. In other words it has followed the logic of the framework round to its end point to look at how all the variables in the framework have fed through to influence livelihoods. An assessment of the implications of illness cost burdens and coping strategies for livelihoods was necessary at this stage of the thesis, to establish which households' livelihoods declined, remained stable, or improved over the 8 month research period. This provides an important foundation for subsequent analysis of the factors that mediated these livelihood impacts, with respect to material assets (Chapter 7), the health system (Chapter 8), and social assets (Chapter 9).

Chapter 7 uses case study household data to analyze the material assets available to households, and the way these material assets are used or managed to meet basic needs and cover illness costs. The analysis is rooted in the conceptual approach to ATP used in this thesis: it addresses the basic question of whether income levels are adequate to meet the costs of minimum basic needs and the additional costs of health care; and how financial management practices, in particular use of financial assets and spending patterns, influence household ability to meet basic needs and health care costs. Chapter 7 addresses objectives 2, 4 and 5: it describes the types of material asset strategies adopted by households when faced with illness costs; identifies factors which make households robust or vulnerable to illness costs, focusing on material assets; and

develops conceptual understanding of ATP, by applying the basic needs approach outlined in Chapter 1.

Chapter 8 examines how the health services available to households, and the way people interact with them, influence illness costs and cost burdens, and therefore mediate the impact of illness on household livelihoods. In particular, it examines whether and how public health services protect the poor against high treatment costs, and how they mediate processes of impoverishment. It therefore follows the logic of the framework round from treatment strategy, through to illness costs and their implications for livelihood, but analysis is focused on the role of the health system in these processes (see Figure 1.2). Chapter 8 specifically addresses objective 4, by identifying health service characteristics that make households robust or vulnerable to illness costs.

Chapter 9 examines the influence of social assets on ability to cope with financial stresses such as illness, and thus focuses on the variables denoted as ‘cost management strategies’ and ‘social assets’ as set out in the conceptual framework in Figure 1.2. The chapter primarily addresses objectives 2, 4 and 5: it describes the types of coping strategy adopted by households when faced with illness costs; identifies factors which make households robust or vulnerable to illness costs, focusing on social assets; and develops conceptual understanding of ATP by developing understanding of how social assets mediate ATP.

Finally, Chapter 10 provides the conclusions to the thesis. It summarizes the findings, and then draws them together to discuss (a) how the thesis has informed the development of concepts and methods for analysis of ATP (objective 5), and; (b) how the thesis has contributed to understanding of the key factors that influence ATP that development agencies can support or enable (objective 6).

1.8 Summary

This chapter has defined the approach to ATP used in the study, one which is essentially concerned with the implications of health expenditure or lost wages due to illness for household livelihoods. A premise of this approach is that people’s WTP for health care is not synonymous with ATP, because household members may be forced to make

sacrifices in other areas (for example basic needs such as food) to release cash for treatment. If the household does not have cash available, it may be forced to borrow, beg, use stores or sell productive assets, strategies with potentially harmful implications for future income and vulnerability to shocks.

Research on ATP was justified on the grounds that conceptual and empirical understanding of ATP requires development, because ATP has become relevant to health policy debates in developing countries. The need for more knowledge about ATP has arisen because of changes to health system financing and delivery in developing countries, which mean people are expected to pay for health care from their own pockets. These changes have made ATP an important concern for policy-makers, NGOs and other actors in the health and development field.

The research objectives and the conceptual framework that guided the research were outlined, the latter derived from concepts drawn from both the health policy and livelihood literature that is reviewed in Chapter 2. This framework places emphasis on household-level analysis of treatment seeking behaviour, the costs of illness and the strategies adopted by households to manage these costs. The assets or resources that households might use to treat illness and manage its costs are shown to be both inside the household (especially its material assets, analysed in Chapter 7), and outside the household (the health system and social assets, analysed in Chapters 8 and 9).

Chapter 2: Literature review on ability to pay for health care: concepts and evidence

2.1 Introduction

The review of literature presented in this chapter has three main components and aims:

- to review the international and national (Sri Lankan) literature that provide the policy context to the study and justify research on ATP (section 2.2);
- to review the literature on livelihood and asset frameworks that can inform the study's conceptual framework, outlined in Chapter 1. The aim is to provide an asset framework which can inform research on the types of asset mobilised by households to meet the costs of illness (objective 2), the impact of illness cost burdens on components of household livelihood (objective 3), and the assets that make households robust or vulnerable to illness costs (objective 4);
- to review evidence on ATP as understood by this study, to identify gaps in knowledge about ATP and also to inform the conceptual framework and methodology.

The literature review had to be eclectic in some areas, because of the inter-disciplinary nature of the research and the diversity of subjects relevant to ATP that needed to be reviewed, for example with respect to health financing policy, household asset and livelihood frameworks, coping strategies and social capital.

2.2 Policy context and justification for study

This section reviews literature on the policy contexts that have driven or justify research on ATP. It first reviews the international literature on health financing reform and debates about ATP, and then considers the Sri Lankan policy context and why this justifies an ATP study in that country.

2.2.1 International context: changes to health care financing in developing countries

Chapter 1 argued that conceptual and empirical understanding of ATP is limited, and that the need for more knowledge about ATP has arisen because of changes to health system financing and delivery in developing countries. These changes have meant people are expected to contribute more from their own pockets to pay for health care,

which has made ATP an important concern for policy-makers, NGOs and other actors in the health and development field.

The rise of concern about ATP

During the 1980s and 1990s concern about ATP in developing countries arose because of specific *health financing reforms*, and more general *processes of structural adjustment and privatisation in the health sector*.

Health financing reform. The main health policy reform to affect government health services in developing countries during the 1980s and 1990s was the widespread introduction of 'cost recovery' measures. These took two broad forms: firstly, national user fee systems implemented at tertiary, secondary and primary levels throughout the country; and secondly, community financing or revolving drug fund initiatives at primary and peripheral levels of the health system, which were usually locally organised but often supported and coordinated at national level (Bennett and Ngalande-Banda 1995; Gilson 1997; Nolan and Turbat 1993). National user fee systems were usually implemented as an integral part of structural adjustment programmes, and were often a condition of donor support (Dahlgren 1991; Mwabu 1993). Donors and international policy analysts (mostly economists) argued that user fees would generate much needed revenue to sustain health services, and would also address inefficiencies and inequalities in the health system (Griffin 1992; World Bank 1987; 1993). It was argued that fees would improve equity if the revenue was targeted to improve services for poorer and under-served sections of the population, and if an effective exemption system was implemented to protect those 'unable to pay'. In other words fees had to be complemented by a range of supportive policy contexts and measures (Gilson et al. 1995).

Structural adjustment and privatisation. A second set of processes causing households to pay more for health care services were more general *processes of privatisation in the health sector*, notably an expansion of private sector providers in developing countries and increasing utilisation of these services. These processes stemmed from macro-economic liberalisation and relaxation of government regulations that had previously restricted private practice (Bennett and Ngalande-Banda 1995; Ngalande-Banda and Walt 1995), and the deterioration of public health services following economic recession and resource shortages in many developing countries since the 1980s.

Evaluations of these policy changes from the 1980s onwards generated concern about the poor's access to health services, and the burden that fees or other health care costs were imposing on household budgets.

Firstly, a large number of studies evaluated the impact of national user fee policies on facility utilisation in several countries, comparing utilisation patterns before and after the introduction of fees. These studies suggested that fees deter utilisation considerably, and the magnitude of these utilisation declines – falls ranging from 30% to 90% in some countries – justified concerns that fees were reducing access to services (Bennett 1989; Booth et al. 1995; Hongoro and Chandiwana 1993; Moses et al. 1992; Mwabu et al. 1995; Thomason et al. 1994; Waddington and Enyimayew 1989, 1990; Yoder 1989).

In contrast, other studies that evaluated locally organised user fee systems in Francophone Africa reported utilisation increases following the introduction of fees, even amongst the poor, in situations where fee revenue was used to improve drug availability and perceived quality (Jancloes et al. 1982; Knippenberg et al. 1990; Litvack and Bodart 1993). In Cameroon, the study by Litvack and Bodart (1993) was particularly influential, because it disaggregated utilisation impact by socio-economic group, and found that improved drug availability led the poor to increase utilisation disproportionately compared to other groups.

However, studies that reported utilisation increases following the introduction of fees were limited and confined to a few small scale projects. By the mid-1990s the weight of evidence, reviewed in several studies, showed that user fees were deterring poor people from seeking treatment (Creese 1991; Gilson et al. 1995; Gilson and Mills 1995; Kutzin 1994; Nolan and Turbat 1993; Russell 1996; Gilson 1997; Russell and Gilson 1997). More in depth studies and qualitative evidence also showed that fees imposed access barriers and large financial burdens on the poor (Booth et al. 1995; Korboe 1995; Norton et al. 1995). A key factor underlying these negative impacts, and raising concern about ATP, was the failure of governments to design or effectively implement targeted exemption mechanisms for the poor (Gilson et al. 1995).

Secondly, other demand studies measured health spending as a proportion of income for different socio-economic groups. The overwhelming conclusion of these studies was that the poor pay more, certainly as a proportion of their lower incomes, but in some cases in

absolute terms (Ensor and San 1996; Fabricant et al. 1999; Mishra et al. 1993; Pannarunothai and Mills 1997). These studies added to the weight of evidence that informed concerns about the poor's ATP for health care.

Thirdly, another body of evidence showed that household budgets were being squeezed, and that ATP difficulties were particularly urgent, in countries undergoing structural adjustment programmes. In these countries households often faced combined fee burdens from several essential service sectors such as health, education and water, while food prices were rising and employment and real wages are falling (Cornia et al. 1987; DeJong 1995; Kanji and Jazdowska 1993; Kanji 1995; Messkoub 1992; Moser 1996; Pinstруп-Anderson 1993).

Current recognition of the burden that fees and health care costs impose on the poor
Ironically, donor and budgetary pressure to introduce user fees in the 1980s and 1990s was greatest in low income countries, mainly in sub-Saharan Africa, where large sections of the population were likely to face difficulties in paying for health care, and where government capacity to implement complementary policies to protect the poor was weakest (Arhin 1995; Mills et al. 2001; Russell et al. 1999; World Bank 1993).

There is now a recognition among donors and health policy analysts that user fees in developing country contexts are likely to deter access and impose damaging cost burdens on poor households. This is because many governments lack the organisational capacity to implement effective collection, accounting and management systems, and most importantly lack the capacity to implement effective exemption mechanisms (Russell et al. 1999; Mills et al. 2001). Consequently, since the end of the 1990s donors have adopted a more cautious approach to user fees because they increase poor people's vulnerability to shocks such as illness and prevent them from building up their human assets through education and better health (DFID 1999; World Bank 2000):

“Cost recovery – enthusiastically promoted and adopted around the developing world – has rapidly fallen out of favour. This is only partly due to disappointing revenue yields. The main concern centres on equity consequences. Instead of improving equity, as some exponents claimed, the price signal has tended to exclude poor patients...” (DFID 1999: 16–17).

“...The Voices of the Poor study shows how the cost of services can prevent poor households from obtaining them...Redistribution, by providing services for free or subsidizing their demand, can help poor people expand their assets. Free primary

education for poor people is critical for expanding their human assets, especially for girls. Similarly, subsidizing prevention of infectious diseases and helping poor households finance the costs of catastrophic health episodes need to be key elements in strengthening poor people's health assets and reducing their vulnerability to health shocks" (World Bank 2000: 83).

Among the donor community, there has been growing recognition that health is an important livelihood asset and that illness contributes to poverty (DFID 1999; Haines et al. 2000, WHO 1999a, 1999b; World Bank 2000). Health financing debates therefore currently emphasise the importance of public financing to increase poor people's access to basic services and to protect or expand their assets (World Bank 2000). In addition, policy debates about ways to increase resources for the health sector have moved away from the option of user fees, towards insurance or risk-sharing mechanisms that pool resources and reduce treatment costs for the poor (Arhin 1994, 1995; Creese and Bennett 1997; DFID 1999; WHO 1999c; World Bank 2000).

Despite this shift in policy dialogue, ATP remains a key concern in developing countries for several reasons. Firstly, user fee policies have become well established and continue to operate in many developing countries, and exemption systems continue to be ineffective (Mills et al. 2001). Secondly, alternative financing mechanisms that aim to share or limit treatment cost burdens through pre-payments may still be unaffordable and require exemptions for the poor (Creese and Bennett 1997). For example in Burundi 27% of respondents to a household survey stated they did not participate in a pre-payment scheme because they lacked cash to purchase a card (Arhin 1994). Thirdly, government resource shortages in many developing countries mean that public health services continue to face drug and staff shortages, giving poor people little choice but to use private providers or go without treatment (McPake et al. 1999; SCF 2000).

2.2.2 National contexts: the Sri Lankan health care system and ATP

Sri Lanka has achieved outstanding human development indicators in the areas of health and education, despite its relatively low per capita income (US\$ 820 in 1999 (World Bank 2000)) (see Table 2.1).

Table 2.1: Social indicators: Sri Lanka, India and other low and middle income countries

	Sri Lanka	India	Low income countries	Middle income countries
Per capita GNP in US\$ (1999)	820	450	410	2000
Average annual growth rate of per capita GNP (%) (1998–99)	2.7	4.9	2.5	1.5
Infant mortality rate (per 1000 live births) (1998)	16	70	68	31
Under 5 mortality rate (per 1000 live births) (1998)	18	83	107	38
Life expectancy (1998)				
male	71	62	59	67
female	76	64	61	72
Primary school enrolment rate (1997)	100	77	76	97
Secondary school enrolment rate (1997)	76	60	51	71
Adult illiteracy (1998)				
male	6	33	30	10
female	12	57	49	20

Source: World Bank (2000)

These achievements have been well documented (Caldwell 1986; Caldwell et al. 1989; Drèze and Sen 1989; Halstead et al. 1985; Sanderatne 1995; Sen 1988; Wuyts 1992) and these studies have directed attention to a variety of micro- and macro-levels factors that have contributed to the country's unusual success in achieving good health:

- the establishment of an elected assembly with universal franchise before Independence in 1931, which made government responsive to demands for better education and health services;
- high levels of literacy before Independence and a strong civil society with a radical tradition that exerted pressure on government to provide basic services;
- universal public provision of health, education and nutritional / consumption support by successive Sri Lankan governments, which in addition have been characterised by: (a) high levels of female schooling; (b) an extensive network of health services free at the point of delivery that are geographically accessible, with a strong emphasis given to preventive and maternal and child health (MCH) care services; (c) a wide range of food and fuel subsidies;
- a high level of female autonomy;
- and a cultural context that makes people highly sensitive to illness and willing to take action until a cure is found (Caldwell et al. 1989).

Despite universal public provision of health services free at the point of delivery, ATP for health care remains an important issue for policy-makers in Sri Lanka for several reasons. Firstly, a significant proportion of the population remain poor, as defined by national poverty lines. Estimates of the percentage of Sri Lankans living in poverty in 1990-1 vary from 22% (World Bank 1995) to 33% (Nanayakkara 1994), depending on the poverty line used. Malnutrition rates also remain high, with 38% of children under 5 years old estimated to be malnourished (World Bank 2000).

High levels of income-poverty are the result of slow average economic growth rates since the 1950s, compared to other countries in the region. Some analysts argue that the emphasis given to redistribution and high spending on social policies contributed to these slow growth rates (Bhalla and Glewwe 1986), which in turn have caused a lack of investment and have been insufficient to generate enough jobs – or better paid ones – to reduce unemployment and income-poverty (World Bank 1995).

Secondly, in 1977 economic stagnation and high unemployment rates were tackled by a new government which initiated an IMF and World Bank-sponsored stabilisation and adjustment programme, which aimed to transform the controlled and inward-looking economy to a more market- and export- orientated one. Measures introduced included tariff reductions and liberalisation of exchange rates, abolition of price controls and food subsidies, and cuts in public recurrent expenditure in areas such as health and education (Alailima 1985; Lakshman 1986; UNICEF 1988).

Although details of the impact of liberalisation on poverty, welfare and equity in Sri Lanka remain disputed (Moore 1990), four overall effects since 1977 that are relevant to ATP for health care were:

- the net distributional effect of stabilisation and adjustment measures has been to increase levels of income-inequality (Alailima 1985; Lakshman 1986; Moore 1990; Nanayakkara 1994);
- relaxation of price controls, cuts to food and kerosene subsidies, and devaluation of the Rupee caused high inflation in the decade after 1977. For example the cost of living rose by 226% between 1977 and 1984 (UNICEF 1988). The continuous devaluation of the Rupee since liberalisation has contributed to the rising cost of living throughout the 1980s and 1990s with respect to food, fuel and imported

medicines, which has been an ongoing problem for the income-poor in Sri Lanka (Gunatilaka 1997; Nanayakkara 1994);

- a rapid expansion of private sector health care services since 1977, and private practice by government health workers (Russell and Attanayake 1997).
- cuts to recurrent health expenditure, which have caused a deterioration in the quality of health services with respect to staff morale, equipment, drug availability and building maintenance (Alailima 1985; Russell and Attanayake 1997; UNICEF 1988);

Thirdly, although the government has not introduced a user fee policy within the context of structural adjustment, and continues to provide health care services free at the point of delivery, ATP for health care is likely to have become a more widespread problem since the late 1970s because of the two changes to the health sector noted in the last two points above. These two processes are likely to have increased the costs of treatment for households and reduced equity of access to health care services (Russell and Attanayake 1997; Silva et al. 1997):

a. Since liberalisation in 1977, when government doctors were permitted to engage in private practice, there has been a rapid growth in private clinics, private hospitals, private pharmacies and laboratories. By the early 1990s the private sector accounted for about 50% of outpatient load, and private health care expenditure made up about 40-50% of total health care expenditure (PTF 1992). Private sector outpatient services are viewed by government as a means of reducing the burden on the public sector, with the public sector becoming principally a safety net for the poor (Sri Lanka National Health Policy 1996). Some sections of the population have the resources to use private sector providers for most outpatient care, but large sections may face payment difficulties.

b. Due to public sector resource constraints various weaknesses in certain areas of service quality, such as long waiting times, drug and equipment shortages, staff shortages in peripheral areas and poorly motivated or impolite staff have persisted into the 1990s (Silva et al 1997; Russell and Attanayake 1997). Research and experience indicate this has had two effects: patients face rising financial costs, even if they use the public sector, for example they have to purchase drugs and tests privately or bring equipment such as syringes and needles into hospital (Russell and Attanayake 1997); and these quality weaknesses deter people from using public OP services, and instead they go to private providers.

Public sector resource constraints have become more acute since 1996 because the health budget and other areas of social spending have been cut in real terms due to the escalating cost of the government's war in the North and East with the separatist Liberation Tigers of Tamil Eelam (LTTE). Military spending now accounts for about 25% of government spending, compared to a figure of 5% for health and 10% for education, and the consequences of public resource cuts for health services are increasingly visible (Attanayake 1999).

This section has justified concern for and research on ATP for health care. The next section develops the study's conceptual framework, which locates ATP for health care within a livelihoods framework and was outlined in Chapter 1, by reviewing the literature on livelihoods and the household resources or assets used to pay for care.

2.3 Locating ATP within a livelihood framework

A livelihoods framework was used for this study because the study's approach to ATP is concerned with the implications of illness costs for other areas of the household economy (see the end of section 1.2.1), in particular (a) the implications of health spending for other areas of household expenditure; (b) the source of the money used to pay for care, and whether assets were mobilised, and; (c) the implications of health spending and coping strategies for household livelihoods, in terms of assets and income flows. This ATP approach therefore needs to consider household assets and their ability to cope with or manage expenses that go beyond routine budgets.

The review of literature in this section has three strands:

- Section 2.3.1 selectively reviews a wide development studies literature on vulnerability, assets and livelihood, in order to establish a typology of material and non-material assets which might be used to pay for health care, and which might be depleted by illness costs. This provides an asset framework to inform research on the types of coping strategy adopted by households (objective 2), the impact of illness cost burdens on household livelihoods (objective 3), and the assets that make households robust or vulnerable to illness costs (objective 4);

- Section 2.3.2 then explores debates on and the meaning of one particular type of asset in more detail – social assets, or social ‘capital’ – and its relevance the study;
- Section 2.3.3 focuses on the few studies specific to the health sector that have approached the question of paying for health care from an assets or household livelihood perspective, to consider which resources households draw on to pay for care and ‘produce’ health. This section ends with a 3-way breakdown of the types of household asset used to pay for care which informs the analytic structure of the thesis, distinguishing between: material assets (analysed in Chapter 7); management assets (analysed in Chapter 7); social assets (analysed in Chapter 9)

2.3.1 Household assets, vulnerability and ATP

Assets, or the resources that people draw on to manage their livelihoods, influence vulnerability to financial shocks. Faced with a financial contingency that goes beyond the household’s routine budget, the asset strategies available to it are critical determinants of its ability to manage these costs. Thus ATP is determined not only by levels of income and income-poverty, but by assets and vulnerability. According to Chambers (1989), vulnerability has two broad dimensions: risk of exposure to contingencies and stresses; and difficulty in coping with these stresses or a lack of means to cope without damaging loss. In this thesis the term vulnerable refers to both these dimensions:

- *risk of exposure to financial stress caused by financial (direct) illness costs*: some households may be more vulnerable to illness and the costs of treatment, for example those with a lot of small children or those that have members with chronic illness;
- *risk of exposure to financial stress caused by wage losses related to illness (indirect costs)*: insecure work and income (in an urban context usually casual daily labour) makes households vulnerable to income loss when an economically active member is incapacitated by illness;
- *difficulty in coping with financial stress* due to a weak asset portfolio, which means people cannot mobilise assets or have to resort to higher risk strategies, for example borrowing at high interest.

The term robust refers to the opposite situation: lower risk of exposure to financial stress from illness costs due to a lack of illness or due to permanent employment and secure income. Also important is the capacity to cope with financial stress due to an extensive or

diverse asset portfolio which can be drawn upon to cope with a sudden contingency such as illness¹.

People's vulnerability or robustness, linked to their assets and available coping strategies, is central to ATP. In fact ability to cope is perhaps a more appropriate term than ATP, because contingencies such as illness costs are likely to go beyond the routine budgets of the poor and necessitate resource mobilisation (Morduch 1999; Rutherford 1999).

The framework used in this thesis to empirically assess household assets and livelihoods, and the asset strategies adopted in response to illness costs, stems from the broad development studies literature on poverty and vulnerability. The starting point is Amartya Sen's seminal work on entitlements (Sen 1981), which examines how households gain command over commodities. The 'entitlement set' of a household, or the bundle of commodities it can command, is determined by:

- the labour and land assets it owns (or 'endowments');
- the direct food entitlements these produce (through own production of crops or livestock);
- and the money these endowments and direct entitlements can be exchanged for, which can then be used to purchase other commodities (exchange entitlements).

In addition, another important component of a person's or household's entitlement set are the services and goods it can access through government provision, for example food subsidies, health care or education².

While the above entitlements focus on existing legal rights, Sen also introduced the concept of *extended entitlements*, which are not necessarily legal rights to command commodities but are well established conventions and social relations that enable people to make claims (Drèze and Sen 1989). For example the household head might traditionally consume more food than other household members, or inter-household resource transfers in times of financial crisis may be a normal part of kinship relations:

¹ The term robust could be used interchangeably with the term resilient. However, robust is used in this thesis to avoid confusion with the term resilient as used by Davies (1993), who used it more specifically to refer to a household's ability to bounce back or reinvest in assets following a shock and asset depletion.

² Cutbacks in government provision and the introduction of user charges therefore create a potential threat to people's entitlement set.

“Despite their legally weaker form, such socially sanctioned rights may be extremely important in determining the amount of food or health care or other commodities that different members of a family get...” (1989: 11).

The concept of an entitlement set, based on a variety of assets and commodity and income sources, is a useful tool for assessing ATP for health care. The concept of extended entitlements is especially useful because it introduces a distinction between material or tangible assets and intangible ones, notably institutions that are neither part of the state nor market economy that provide opportunities and entitlements through social relations and networks. These intangible assets have also been conceptualised as ‘social capital’, which was defined in Chapter 1 (Moser 1996; 1998; Putnam et al. 1993).

Subsequent work developed Sen’s entitlement theory by investigating differential vulnerability to famine between individuals and households, and variations in vulnerability over time as assets are depleted and restocked, focusing on the types of asset available to people and when and how they are mobilised (Corbett 1989, Davies 1993; Devereux 1993; Swift 1989). These analyses inform asset frameworks for assessing ATP, for example Swift’s disaggregation of assets into *investments*, *stores* and *claims* improves understanding of the potential asset strategies available to households when medical costs arise (Table 2.2). Swift’s category of ‘claims’ incorporates social assets as important assets influencing ability to cope and robustness to shocks.

A slightly modified ‘asset framework’ has been developed by Moser (1996; 1998) for an urban context (Table 2.2), based on four urban studies of household and community responses to poverty. Labour was found to be the urban poor’s most important asset, closely linked to public investment in social and economic infrastructure which boosts the human capital of the poor and improves scope for using their labour. Moser’s work also highlighted the importance of housing as an asset in the urban context, for example as a place to do small business or rent out. Moser’s asset framework also stresses the importance of social assets in providing support for people at times of difficulty, either within the household (e.g. through absorbing additional family members to share consumption), or through reciprocal exchange between households (e.g. child care, loans, sharing of food or cooking).

In recent years different livelihood studies or frameworks have been synthesised to produce a ‘sustainable livelihoods framework’, which distinguishes between five types of

household asset, including social assets (Scoones 1998; Carney 1998). This framework is briefly described in the last column of Table 2.2, and provides the asset typology or framework used in this study.

The concept of social assets, or social ‘capital’, rose to prominence in development debates during the 1990s (Fine 1999; Harriss and de Renzio 1997), and has been adopted enthusiastically by development agencies such as the World Bank to explain developmental processes (see for example World Bank 2000). A recent livelihoods framework developed by Bebbington (1999), for example, considers social capital to be the most important asset for poor households because it is an asset through which people “*engage with other actors in the spheres of market, state, and civil society in order to gain access to resources...*” (1999: 2023). Social capital is therefore different to other assets because it gives access to other assets.

The next section examines the concept of social capital in more detail, and its relevance to a livelihoods framework for assessing ATP for health care.

Table 2.2: Asset typologies: from famine vulnerability to sustainable livelihoods

Analysts >> Type of asset	Swift (1989)	Moser (1998)	Scoones (1998) / Carney (1998) (framework used in this thesis)
Human	Investments: human investments in education and health	Labour: the most important asset of the poor Human capital: closely linked to social infrastructure provision: health status which determines capacity to work, and skills and education which determine returns	Human capital: skills, good health and ability to labour; ability to pursue livelihoods
Physical	Productive assets: housing, land, trees, wells, farming equipment Collective assets: transport, irrigation systems, common property resources Stores: savings, jewellery, food stores	Productive assets: for poor urban households the most important is often housing Social and economic infrastructure provision	Natural capital: land, water, environmental resources Physical capital: basic infrastructure of housing, water, transport, electricity
Financial	Claims: on other households and social networks; on patrons, big men, chiefs; on government on international community		Financial capital: savings, credit, pensions etc. which provide livelihood options Social capital: networks, associations, institutions on which people can draw; often based on moral economy and relations of reciprocity

2.3.2 Social assets

The previous sub-section described how social assets have increasingly been recognised as important livelihood assets. And the review of empirical evidence on ATP in section 2.3 below also shows that social assets play a critical role in mediating ability to cope with illness costs. But like so many development terms, the term social asset – or social capital as it is now referred to – is notoriously difficult to define and its significance disputed (Bebbington 1999; Fine 1999, Woolcock 1998). A key problem is the vague and all encompassing nature of the concept. It refers to trust, networks, social relationships, family structure, shared understandings, institutions, customs or culture; and it has been applied to a myriad of subjects and scales. For example in economics it has been used to explain transaction costs and market imperfections, income levels and differential growth rates (Narayan and Pritchett 1999); in the public health literature to explain differential health outcomes (Wilkinson 1996); and in a variety of other social science or policy fields to explain family breakdown, school performance, violence, all the way up to questions of governance and policy success or the strength of democracy (Evans 1996; Fox 1996; Lochner et al. 1999; Portes 1998; Putnam et al. 1993; Putnam 1995; Tandler 1997).

The scope and ambiguity of the term social capital make it difficult to define, and for some analysts make it a weak concept “*which merely serves as a convenient peg on which to hang collections of dull and mechanistic empiricism*” (Fine 1999: 6). However, the concept of intangible resources and social capital is not new (Bourdieu 1986; Coleman 1988), and has been researched and theorised for many years by social scientists, particularly anthropologists, for example addressing questions such as the moral economy (Scott 1976), social networks and relations of reciprocity (Lomnitz 1977), or questions of identity, reputation and status as resources (Wallman 1984; 1996). From this work and more recent debates in the literature some useful definitions of social assets or capital have emerged, which offer a starting point for a brief review of the concept’s relevance to ATP. Narayan (1999) offers a useful definition of social capital:

“Social capital is defined as the norms and social relations embedded in the social structures of society that enable people to coordinate action and achieve desired goals” (Narayan 1999: 6).

Social capital differs from other forms of capital because it exists in relationships, not people's bank accounts (financial capital) or inside their heads (human capital). Because it inheres in relationships between different social actors, it can be analysed at different interface levels. And at any given level or interface between actors, the variables or features of social capital to be researched require specification. Drawing on recent literature, the *levels* and *features* of social capital presented in this thesis are briefly outlined below.

Levels of social capital

The scope and ambiguity of the term social capital necessitates a precise definition of the *level* of relationship(s) to be researched, and the actors in that relationship (World Bank 2000). For example research could focus on micro-level relationships between family members or members of a wider kinship group, between patient and doctor, or between households (Moser 1996); or it could broaden its focus to look at the social environment and institutions that mediate relationships between government actors, or between civil society and the state (Evans 1996; North 1990). The social research questions asked at any one of these levels are likely to vary, depending on the research and researcher, even though they might all be labeled as an aspect of 'social capital'.

The research presented in this thesis focuses on social assets or capital at the micro-level relevant to household ATP for health care:

- *inter-household relations and social networks* that can be drawn upon to access resources at times of illness, particularly financial resources that pay for treatment or cover wage losses due to illness;
- *neighbourhood groups and community-based organisations (CBOs) that provide financial services* that can also be drawn upon to access resources at times of illness.

Data were also collected at the level of government – community relationships, but are not directly relevant to the thesis and not presented in any detail in subsequent chapters³.

³ During fieldwork the role of government in the formation of CBOs for savings and credit and community development activities was also researched. These government-community partnerships, which increased community participation in urban projects and led to social capital formation, are not directly relevant to the thesis and are described in detail elsewhere (Russell and Vidler 2000).

To inform understanding of the opportunities or material resources that social networks can provide for people, it is also necessary to clarify the types of actor involved in the network or group – their ‘positions’, who they are or what they do. Three broad types of social capital have been identified (Woolcock 2000; Narayan 1999; World Bank 2000):

- *bonding social capital*: the strong ties connecting people from the same immediate group: family members, neighbours, close friends, and business associates sharing similar socio-demographic characteristics;
- *bridging social capital*: weaker ties with people from the same socio-economic status but different ethnic, occupational or geographical groups;
- *linking social capital*: vertical ties between people from different socio-economic groups and positions of power, such as the links between poor people and actors in positions of influence in formal organisations such as political parties, banks, schools, hospitals, housing authorities, or the police. Bebbington (1999) refers to this particular type of social relationship as an important asset for gaining access to or defending other assets.

According to Narayan (1999), the last two types are more conducive to development than the first, since they provide a means of accessing resources or influence outside the close-knit (bonding) group, which may be poor or marginal. These ties may be weaker but they may have the capacity to provide more resources and opportunities. A society which has strong bonding social capital among people from similar groups, but weak bridging social capital, is potentially weak and divisive: it may include some and exclude others; prevent social mobility; lead to improvements for one group at the expense of others; and reinforce pre-existing social stratification:

“...social groups and networks only work by including some and excluding others...Social capital can explain much social exclusion, because the same ties that bind also exclude...Hence those who belong to the social networks which already have access to the resource allocation decisions of the state or the private sector are much more likely to continue to be included in societal processes than those who do not have such access...social capital can lead to maintaining the status quo of exclusion” (Narayan 1999: 5).

These questions of power relations and structures of inequality that generate exclusion or inclusion are important for ATP analysis, because some groups may have access to

contacts that offer cheap sources of credit (for example credit societies or community-leaders), and others may be excluded from such groups (see Chapter 9).

Features of social capital

As well as defining the level of relationship, the ambiguity of the term social capital necessitates a precise definition of the *features* in the relationship that are to be researched. From the literature, key features or variables include:

The nature of trust, and the degree of trust and reciprocity in the relationship or group.

In the literature two important features of social capital are trust and reciprocity (Moser 1998; Putnam et al. 1993). Trust is an essential component of social capital, since it accompanies most exchange or transactions and ‘lubricates’ cooperation (Putnam et al. 1993). Without trust reciprocal exchange is unlikely, and the level of trust is likely to influence the degree or type of reciprocity. Two broad types identified in the literature (Sahlins 1972, cited in Putnam et al. 1993) are, firstly, *balanced reciprocity*, an exchange of items of equivalent value, within a set time period, with sanctions applied if the favour or loan is not repaid, and secondly, *generalised reciprocity*, a continuing relationship of exchange which at any given time may be unbalanced or unrequited. It has a mutual expectation that a benefit granted now will be repaid at some point in the future – people feel it is their duty to repay – but when it will be repaid is not clear.

The purpose of the relationship, group or organisation. Analysts have stressed the need to incorporate questions of politics and power relations into social capital research if it is to have any relevance to development policy and practice (Beall 1997; Fine 1999; Harriss and de Renzio 1997; Putzel 1997). This is because social capital may operate for positive or negative outcomes, depending on the groups, networks and social contexts in question. If the general definition of social capital is the norms and social relations that enable people to coordinate action and achieve desired goals (for example Narayan 1999), it does not necessarily mean these networks will work for the well-being of all groups. It may have ‘dark side’: powerful networks may sustain authoritarian rule, poverty and corruption and inhibit the development and goals of other groups with democratic or egalitarian aims. There is therefore a need to distinguish between the existence of networks, and their political content, aims and actions (Ostrom 1997; Putzel 1997). And to consider who reaps the benefits of these relationships?

The level of resources or support that can be obtained from people in the network or group. This is important to ATP, since the level of resources that can be obtained from social networks, or savings and credit societies, will affect a person's ability to cope with illness costs. The question of the types and levels of help that can be obtained is related to the question of which actors are part of the network: *bonding* social capital among neighbours or friends may provide only limited material help if the group is poor; but *linking* social capital may provide more resource potential.

These are the key features or variables that inform the research on social assets in Chapter 9.

2.3.3 Assets and illness: which resources pay for care?

This section reviews the few studies specific to the health sector that have conceptually approached the question of paying for health care from an assets perspective, to consider which resources households draw on to pay for care and 'produce' health. A starting point is the broad conceptual framework proposed by Berman et al. (1994) known as the "Household Production of Health" (HHPH), defined as:

"A dynamic behavioural process through which households combine their knowledge, resources and behavioural norms and patterns with available technologies, services, information, and skills to restore, maintain and promote the health of their members" (1994: 206).

The HHPH approach informs this study's analysis of the resources that households use to pay for care, because it advocates an inter-disciplinary approach that takes account of a broad range of resources that people draw on to 'produce health', as listed in the quote above. The resources on which people draw can be located within or outside the household. Thus a key message of the HHPH approach is that less emphasis should be placed on formal health services as the primary determinants of health: *"They [health services] should be seen as one of many resources which households employ to maintain and promote health"* (1994: 206).

A household model which more specifically addresses the question of the resources people use to pay for treatment has been developed by Wallman and Baker (1996). The main premise of this approach is that a person's or household's resource system depends

on social relationships, status, skills and beliefs as much as it depends on material assets. The model seeks to integrate these intangible assets, usually the speciality of social anthropologists, with the material ones that usually occupy economists' attention, thus combining insights from different disciplines as advocated by the HHPH approach.

The household resource model estimates a person's capacity to find, obtain and pay for treatment, distinguishing between 3 types of resource:

Material resources: this is the most tangible and quantifiable part of the model, and includes money, or other material assets that have a market value and can be converted relatively quickly into cash through exchange, such as jewellery, a radio or bicycle.

Investment potential: this part of the model refers to skills and capacity, and of particular relevance to the research presented in this thesis, asks '*how well do people use what they have?*'. Ability to access and pay for treatment is determined not only by the material resources such as income, but how well these resources are managed. This use of resources is dependent on a variety organising resources (Wallman 1984), factors such as priorities (invest or consume now?), skills (managing finances), information (where to get the cheapest treatment) and time. Linked to the question of resource management is who controls spending in the household: ability to pay for a child's treatment, for example, may be influenced by the degree of autonomy over spending that a woman has.

Social resources: social resources are also a core part of the model, and refer to the benefits of relationships with family, friends and other contacts, which are not necessarily tangible but can play a significant role in meeting health care needs. For example someone who makes regular visits to a relative or friend:

"... 'gets' affection and a sense of belonging, and a relationship well-sustained is readily converted into the currencies of help and support – whether practical, financial or emotional – which are made necessary by an illness or treatment crisis" (1996: 675)

The model developed by Wallman and Baker (1996) directly informs the research presented in this thesis. The analysis of household assets that are used to pay for treatment or to cope with illness costs when they exceed routine budgets adopts their tripartite approach. Chapter 7 analyses the role of (a) material assets and (b) organising or

management assets, with the latter focused on how well households use their income and the way that male spending influences cash availability for treatment. Chapter 9 analyses the role of the third part of the model, social assets.

2.4 How the poor cope: evidence on ability to pay

This section reviews empirical evidence relevant to ATP as understood in this study, looking at how households have coped with illness and its costs, and the more limited data on the implications of these costs and coping strategies for household livelihoods. This evidence was used to inform the ATP approach founded on basic needs and livelihood perspectives outlined in Chapter 1, and also identifies gaps in knowledge. Three main questions are asked in the review:

- how can we analyse or classify strategies adopted to cope with illness costs – both direct and indirect?
- what are the types and sequence of strategy adopted by households to cope with the costs of illness?
- what have been the implications of these strategies for household assets, income and spending patterns; how have illness costs and coping affected basic needs?

2.4.1 Analysing coping strategies

Drawing on the work of Davies (1993), in this study coping is generally defined as *a planned response or series of responses to a non-routine stress to avert a negative effect on the actor*. And in the context of coping with illness the following definition has been developed:

A planned response or set of responses by the household when illness occurs, which might involve: treatment strategies; strategies to manage financial illness costs when they go beyond routine budgets; or strategies to manage potential or actual wage losses due to illness.

Davies (1993) distinguishes between coping strategies, which are short-term and adopted within a prevailing livelihood situation or value system, and adaptive strategies

which refer to longer term and permanent shifts in behaviour in response to long term difficulties. This distinction is relevant to the way people cope with illness costs, because strategies will differ depending on the nature and seriousness of illness:

- *acute illness*, particularly more serious episodes or accidents, may impose sudden costs on the household which require sudden resource mobilisation;
- *chronic illness*, especially serious long term illness which incapacitates workers, will have long term livelihood implications requiring adaptive strategies, for example HIV/AIDS has long term cost, resource and response implications (Barnett and Blaikie 1992).

This study's conceptual framework for analysing strategies to cope with illness costs was informed by the categories of coping developed by Sauerborn et al. (1996a) and to a lesser extent Devereux (1993). The former distinguishes between strategies that:

- prevent financial or time/production costs from arising (cost prevention strategies);
- minimise or manage these costs if they do arise (cost management strategies).

For example to prevent production costs the sick person may continue to work despite the illness; and to minimise production costs another household member may take over the work usually performed by the sick person (labour substitution). To prevent financial costs a household member may allow an illness to go untreated, or to manage financial costs the household may borrow. Figure 1.2 in Chapter 1 shows how these different categories of strategy fit into the analytic framework.

2.3.2 Evidence on types and level of strategy

Table 2.3 sets out the main types of strategy to cope with illness costs identified in the literature, distinguishing between cost prevention and cost management strategies for financial and time costs. Evidence from household surveys has generated useful quantitative data on the extent of payment difficulties within study populations and the proportion of people adopting a particular treatment or cost management strategy, but cannot examine the details of these strategies or their implications. In contrast qualitative studies generate richer information about ability to pay, since they examine strategies in more depth, people's priorities and the reasons why these strategies are adopted, and in some cases the implications of these strategies for households. These two types of data are therefore complementary.

Table 2.3: Typology of strategies adopted to cope with financial or time costs of illness

	Financial costs	Time costs
Cost prevention	<p>A Financial cost prevention</p> <ol style="list-style-type: none"> 1. Do not seek care or stop treatment 2. Seek care but attempt to avoid payment (illegally or through exemption) 	<p>B Time cost prevention</p> <ol style="list-style-type: none"> 1. Do not seek care or stop treatment
Cost management or minimisation	<p>C Financial cost management or minimisation</p> <ol style="list-style-type: none"> 1. Diversify treatment behaviour: shift demand to cheaper providers 2. Reduce treatment <ul style="list-style-type: none"> • cut frequency or levels of treatment for some members • only treat priority cases 3. Delay treatment 4. Pay for treatment but manage costs: <ul style="list-style-type: none"> • Cut spending on / forego consumption of food and other essential commodities • Use assets: social assets (such as claims on social networks); human capital (mobilise extra workers); financial assets (use savings); physical or material assets (sell food stores). 	<p>D Time cost minimisation</p> <ol style="list-style-type: none"> 1. Intra-household labour substitution 2. Hire in labour 3. Claims on free community labour arrangements

Financial or time cost prevention strategies (or treatment strategies)

To prevent either financial costs or time / production costs, the most common and often only strategy available to people is not to seek treatment or to stop an existing treatment regime (Sauerborn et al. 1996a; 1996b). Household surveys offer data on the proportion of people deterred from seeking treatment due to cost factors, and often used this information as an indicator of ATP.

In a review of the Bamako Initiative in five African countries, survey data found that a large proportion of respondents were prevented from using services due to a lack of cash, for example 70% of the sample in Kenya, 66% in Uganda and 96% in Nigeria (McPake et al. 1992).

Other studies also show that cost prevention strategies result from lack of cash. For example in Vietnam 5% of those reporting an illness were deterred from using care because treatment was said to be too expensive, with the figure rising to 10% among the poorest group but only 1% among the rich (Ensor and San 1996). In Sierra Leone 34% of illness cases were deterred from seeking treatment due to lack of money (Fabricant 1992).

Evidence also shows that inability to seek care due to financial and time costs has a strong seasonal dimension in rural Africa, due to the lower cash availability and higher opportunity costs of seeking care at the time of the pre-harvest rainy season (Fabricant 1992; Litvack and Bodart 1993; Sauerborn et al. 1996b):

“...about one third of the utilisation drop was attributable to poor physical access while the remainder was attributable to reduced availability of cash...In addition to the financial costs of seeking care, the high opportunity costs of time are likely to make health services economically less accessible in the rainy season” (Sauerborn et al. 1996b: 287).

In several countries that have introduced user charges, qualitative research provides more detailed evidence of people not seeking treatment due to cost factors, thus distinguishing between ‘can’t pay’ and ‘won’t pay’ responses to charges. Focus group discussions held in Ghana reported non-attendance because of lack of cash, and noted the vulnerability of young mothers who do not work or do not have access to cash within the household (Waddington and Enyimayew 1989). In Zambia, qualitative research and PRA techniques in five communities found many people could not seek care at government facilities following the introduction of fees due to lack of cash and failure of the exemption system (Booth et al 1995):

“The three socio-economic categories that emerged from the wealth ranking exercise in Litoya were seen as having clearly differentiated characteristics in terms of ability to pay the fees demanded by the rural health centre. The ‘rich’ would be able to meet the charges without any difficulty; the intermediate group would manage to pay the charges, though with some difficulty; but the poor and destitute would not be able to raise the money and would surely stay away...after exhausting all the available traditional home remedies, ‘they only wait to die” (Booth et al. 1995: 69-70).

In Papua New Guinea all members of a focus group discussion stated they either knew someone or had themselves been in the position of being sick and not attending the facility due to inability to pay (Thomason et al. 1994). In rural areas where people do not receive regular cash incomes the transport costs alone were seen as prohibitive:

“The people in the town are OK but for us in the bush we do not have money to pay for a vehicle to come to town ...For women too they do not have money to come to town and stay and die at home. We are very sad about this. It is hard for us village people....If they put up the fees we couldn’t cope. We would stop in the village and die” (Thomason et al. 1992: 37).

In countries where government charges the user, an alternative strategy to prevent financial costs is to obtain free treatment, either through payment avoidance or exemption claims. However, people that lack cash to pay for care often continue to face ATP difficulties, because in many developing countries exemptions are difficult to obtain or not available. Exemption policy failures stem from poor policy design, inconsistent policy implementation across facilities, and overzealous fee collection or staff reluctance to grant exemptions (Ensor and San 1996; Gilson et al. 1995; Gilson et al. 1999; Russell and Gilson 1997; Nolan and Turbat 1993; Smithson et al. 1997). These implementation problems are the result of weak government capacity, both at the level of the Ministry of Health (weak administrative systems), and the wider policy environment (for example a livelihood context which means there is no information on people's income) (Mills et al. 2001; Russell et al. 1999).

Financial cost management strategies

Household surveys have generated data on responses to cash shortages at times of illness and treatment. In the Sierra Leone study cash was not available to pay for care in 56% of households, and a third of this 56% obtained cash by adopting the strategies listed in Table 2.4. The most frequent strategy adopted to manage financial costs was to borrow from friends and relatives, followed by the sale of food crops and receipt of gifts.

Table 2.4 Costs management strategies in Sierra Leone

Households without available cash: responses by sub-sample (n=545)	Frequency (%)
Make claims on kin or other households (borrow)	44.4
Borrow cash from money lender or bank	1.7
Sell food crops	20.9 ^a
Forego investments in other essential areas	1.3 ^b
Sell cash crops	4.4
Use, sell or pledge stores and assets:	
sell belongings	4.0
sell livestock	0.7
pledge land	0.7
use savings	-
Gifts, charity or begging	9.4
Delay payment	3.9
Other	9.3
Total	100.0

^a it was unclear whether the food sold was normally consumed by the household, or whether it was surplus for trading

^b business capital

Source: Fabricant (1992)

In the Bamako Initiative studies (McPake et al. 1992), household surveys asked all respondents about the resources used to pay for care (Table 2.4). In Kenya, Nigeria, Burundi and Guinea nearly all respondents resorted to non-routine cash sources, suggesting widespread payment difficulties. The dominant cost management strategy was to borrow from kin or other households. However, the question was worded: '*How do you solve the cash problem in the case of urgent need for health services?*', which may have encouraged respondents to consider only those situations where cash was not available.

Separate studies in Tanzania (Abel-Smith and Rawal 1992) and Kenya (Mwabu et al. 1995) found that about 60% of respondents faced payment difficulties and resorted to cost management: borrowing was again the most frequently cited response (last 2 columns of Table 2.5).

Table 2.5: Resources used to pay for treatment – household survey data

Source of money	Kenya 1	Uganda	Nigeria	Burundi	Guinea	Tanzania	Kenya 2
Routine wages	-	-	-	-	-	40	41
Cut consumption of other essentials	-	-	-	-	-	-	-
Borrow from other households	45	49	36	35	25	36	21
Borrow from moneylender	-	-	1	1	2	-	-
Sell farm produce ^a	9	-	23	18	20	32	19
Use, sell or pledge assets:							
Savings	4	-	6	-	12	-	-
Belongings	15	15	9	22	2	15	-
Livestock	-	-	-	-	-	17	13
Begging or charity	2	-	3	16	11	-	-
Delay payment	-	-	11	-	18	-	-
Other	25 ^b	33 ^c	15 ^d	-	7	-	4
Total ^e	100	97	104	91	97	140	99

^a it was unclear whether these were sales of basic subsistence products that are part of minimum consumption needs, or were sales that would have taken place anyway, albeit at a later date and perhaps better price.

^b included delaying payment, not seeking care and borrowing money from money lender.

^c in the Uganda survey 29% of respondents were categorised as using a 'combination' of responses which were not reported – the other 4% was classified as other.

^d included not seeking care and paying in kind.

^e totals of more than 100% indicate respondents gave more than one answer; totals less than 100% were due to low response rate.

Source: MCPake et al. (1992) (Kenya 1, Uganda, Nigeria, Burundi, Guinea); Abel-Smith and Rawal (1992) (Tanzania); Mwabu et al. (1995) (Kenya 2).

Household surveys may not pick up the full variety of strategies adopted by people due to the design of the survey instrument, but the data indicate strongly that social networks are the most frequently mobilised asset when cash is not available to pay for care. Selling physical or productive assets (farm produce, belongings and livestock) is also a common response, but it is unclear whether the farm produce sold was surplus to requirements or

essential to current consumption needs. Other household surveys conducted in Thailand and Uganda report a similar reliance on claims from relatives or friends and crop sales to pay for care (Barton and Bagendra 1995; Lucas and Nuwagaba 1999; Mongkolsmai 1993).

More detailed data on financial cost management strategies were generated from qualitative research or household surveys specifically designed to assess ATP in some detail. The categories of strategy below follow those listed in Table 2.3. However, only one study noted a common strategy reported in the famine literature, *cuts to consumption or spending on food and other essential commodities* (Ensor and San 1996). Despite its potential importance, as it was rarely raised in the health literature it is not considered further below.

Reduce or diversify treatment

To reduce the financial costs of illness households may resort to cheaper providers, or cut down on the level or frequency of treatment. In Ghana, the poor resorted to local drugstores or drug peddlers because they were cheaper than government health centres:

“...if she had about 20 or 30 cedi she would go to the drugstore, buy something like paracetamol for the child to chew in order to reduce the illness ‘till she was able to borrow some money. Then she could bring her child to the health post” (Waddington and Enyimayew 1989: 28).

Other responses to cash constraints include increased self treatment, use of traditional providers, the purchase of partial drug doses, non-completion of treatment courses and reduced length of stay (Asenso-Okyere et al. 1998; Booth et al. 1995; Fabricant 1992; Hongoro and Chandiwana 1993; Litvack and Bodart 1993; Thomason et al. 1994; Waddington and Enyimayew 1989).

Another strategy open to households is to reduce the number of health care users in the household, only treating priority cases, which focuses attention on intra-household resource allocation and potential conflicts of interest along age or gender lines within the household. Cash shortages may force decision-makers to prioritise the health care needs of economically productive household members above the needs of children or the elderly (Coreil 1993).

Delay treatment

In Zambia, after user fees were increased in 1991, research found that women expecting difficult deliveries left their admission to the last moment to reduce their admission costs (Booth et al. 1995). In Uganda, where admission was free for serious cases admitted to a hospital acute ward, some mothers waited until their child was critically ill before attending the hospital to ensure they were eligible for free admission (Ogden 1996). Other evidence shows it is usually the poor or those with intermittent incomes that are forced to delay treatment due to cash shortages (Asenso-Okyere et al. 1998; Ensor and San 1996; Waddington and Enyimayew 1989).

Asset strategies

Studies that have investigated how households obtained cash to pay for treatment strengthen the conclusion that gifts or borrowing through social assets are the most frequently relied upon asset for managing treatment costs (Booth et al. 1995; Fabricant 1992; Ensor and San 1996; Kanji and Jazdowska 1993; Tungaraza 1993; Waddington and Enyimayew 1989; Wilkes et al. 1997):

“Perhaps the most important factor promoting equality of utilisation of Primary Health Care units is the possibility of borrowing (from friends and relatives)...According to focus group discussions, the system works because borrowing is taken seriously: loans are nearly always paid back because there is no recourse in emergencies once a good reputation is lost; in that case a family may have to leave the area and start anew” (Fabricant 1992: 172-4).

In Tanzania these networks are occasionally organised into ‘money exchange networks’ with members contributing small sums each week and collecting lump sums on a rotating basis (Tungaraza 1993). In Zambia, however, poverty and weakened kinship ties had placed social networks under strain, so that ‘traditional’ support mechanisms could no longer be relied upon as safety nets for the ultra-poor:

“...kinship ties have weakened in some places to the point where people no longer feel able to help each other. As one woman put in a Jembe focus-group session, the high cost of living has killed off extended family ties: “it is now each one for herself!” (Booth et al. 1995: 80).

A more desperate strategy in this situation was to beg for assistance from friends and kin (Booth et al. 1995).

Other evidence also suggests that, on the one hand, social networks are an important resource to fall back on when illness or other difficulties arise. But on the other hand in some communities and for some groups, notably the poorest, social resource endowments are weak and the poor are less able to rely on social networks for cheap credit (Booth et al. 1995; Ensor and San 1996; Morduch 1999; Wilkes et al. 1997).

Evidence that the poor have weaker social resource endowments comes from a study in Vietnam, where the poorest groups were forced to borrow most heavily from money lenders at substantial rates of interest (Ensor and San 1996).

“Only 4.5% of the rich had to resort to borrowing in order to pay charges, but this rose to 36% among the poor. The source of borrowing also varied among income groups. Over 11% of those in the poor group were forced to borrow from a money lender...this fell to fewer than 3% for those in the rich group. Thus, although much ‘borrowing’ is accounted for by informal risk-sharing among relatives and close friends, the poorest groups are consistently forced to borrow from outside these sources at substantial rates of interest” (Ensor and San 1996: 78).

The opportunity cost of borrowing can even be high when it is from friends and family and no formal repayment is required, because of the moral obligations to repay. In China, for example:

“Relatives and friends lend with an expectation of reciprocity and some households considered the opportunity costs of selling assets to be lower than borrowing” (Wilkes et al. 1997: 16).

Use of stores or sales of productive assets are also common strategies to deal with treatment costs. Pryer’s study in Bangladesh found that medical expenditure was higher for those households with assets to sell:

“In all such households the cost of medical expenditure was borne by the sale of assets. As soon as the receipts from the sale of the last asset had been spent, all further costly medical expenditure ceased” (Pryer 1989: 53).

In a detailed household history profile, the husband had become partially paralysed in 1968 and his wife had sold the marriage gold, her husband’s tools, and various household possessions to finance treatment by religious and homeopathic healers. After a period of better health and accumulation, the husband was incapacitated again, and remaining assets were sold to meet consumption needs and to finance medical treatment (Pryer 1989).

Other studies also report assets sales in response to illness (Baum and Strensky 1989; Chambers 1982; Ensor and San 1996; Wilkes et al. 1997). The sale of these assets may have a costly impact on the household's future livelihoods and earning capacity, and distress sales of productive assets such as land or oxen suggest the household has reached a critical threshold in its capacity to cope (ability to pay), having exhausted other responses such as reduced food consumption and sale of possessions, which entail lower opportunity costs. However the socio-economic status of those selling assets and the longer term impact of these sales on future livelihoods has not been investigated in any detail.

Time or production cost management strategies

When illness incapacitates economically active members of the household and causes wage or production losses, the strategies adopted to manage these losses will be similar to the expenditure or asset strategies outlined above. The wage or production losses will cause financial stress and households will have to mobilise resources to sustain existing consumption or investment levels.

However, households will also try and minimise the wage or production losses caused by incapacitating illness, and Table 2.3 outlines strategies identified in the literature, the most common being intra-household labour substitution. In Sierra Leone the reallocation of tasks among household members was the most frequently chosen strategy to deal with anticipated production losses among 25 case study households (Sauerborn et al. 1996a). The nature of the breadwinner's occupation was found to be an important factor mediating the success of such strategies, since it may not be easy to replace people who perform skilled tasks, or labourers working for a particular organisation or employer. A study in China also found the most common response to labour losses was an adjustment of labour roles and intensity of effort within the household, usually the spouse or eldest child of an agricultural labourer doing the work instead (Wilkes et al. 1997).

2.5 Beyond coping strategies – opportunity costs or implications

When the research presented in this thesis was first proposed, there had been no studies that had followed households over an extended period to evaluate the impact of illness costs and coping strategies on livelihoods. This was the major gap in knowledge which

drove the research. However, two areas of work later increased the profile of concerns related to treatment and other essential service costs and their implications for household livelihoods and health.

Firstly, some qualitative studies had begun to explore the implications of illness-related coping strategies for livelihood assets. For example, support networks were shown to be increasingly under strain. In Ghana respondents stated that reliance on these networks had high economic and social costs for their extended families (Waddington and Enyimayew 1989). In a study examining the social impact of structural adjustment in Harare, demands on paternal uncles and older siblings who are expected to help with school fees were exacerbating tensions between family members, often along gender lines (Kanji and Jazdowska 1993). And as noted above, in Zambia traditional support mechanisms could no longer be relied upon as safety nets for the ultra-poor (Booth et al. 1995).

Secondly, three studies had described the potential implications of illness costs and coping strategies, based on how 'risky' the strategies appeared to be for future livelihoods (Ensor and San 1996; Fabricant 1992; Sauerborn et al. 1996a). For example Ensor and San (1996) defined people who adopted risky strategies as those who were deterred from using facilities altogether, or forced to borrow from a moneylender, reduce essential expenditure on food and fuel, or sell livestock. Using this as a definition of affordability, 32% of the sample adopted strategies that posed risks for future health and livelihoods.

However, in these three studies, and the other studies outlined in section 2.3, the consequences of these coping strategies were not actually followed up. Since 1996 only one study, in China, has returned to households to investigate the implications of previous illness costs and coping strategies for livelihoods (Wilkes et al. 1997). An illness and expenditure survey in 1994 was followed up two years later, with 52 households selected for the follow-up study. These case study households were interviewed about the implications of the illness costs and coping strategies elicited two years earlier. The results showed that illness costs and coping strategies had damaged assets and livelihoods in only 3 out of the 52 households. Most households had not sold 'core' assets and had managed to reinvest, but three had sold productive livestock assets (pigs and oxen) which had caused income to decline in subsequent years, and compounded the problem of repaying debts that had been incurred due to treatment costs.

But overall, borrowing to finance health care did not appear to have caused severe indebtedness.

2.6 Summary

This chapter has reviewed three broad sets of literature. Firstly, it reviewed the international and national (Sri Lankan) literature that provides the policy context to the study and justifies research on ATP. With respect to the international policy context, the need for more knowledge about ATP has arisen because of changes to health system financing and delivery in developing countries, which mean people are expected to contribute more from their own pockets to pay for health care. Both specific health financing reforms, notably the widespread introduction of user fees, and more general processes of privatisation in the health sector, have meant ATP for health care has become an important concern among donors and health policy analysts. In Sri Lanka the government has not introduced a user fee policy within the context of structural adjustment, and continues to provide health care services free at the point of delivery. But health care costs and ATP are likely to have become a more widespread problem since the late 1970s because of public sector resource constraints and the rapid growth of the private sector.

Secondly, a broad literature on livelihood and asset frameworks, social capital and household resources used to pay for treatment was reviewed. The aim of this second section was to inform the study's conceptual framework, outlined in Chapter 1, by locating the approach to ATP for health care within a livelihoods framework. The review developed a classification of tangible and intangible assets available to households, and identified the levels and features of social capital that are relevant to the research. This part of the review therefore provided an asset framework to inform research on the types of asset mobilised by households to meet the costs of illness (objective 2), the impact of illness cost burdens on household livelihoods (objective 3), and the assets that make households robust or vulnerable to illness costs (objective 4). This second part of the literature review ends with a 3-way breakdown of the types of household asset used to pay for care which informs the analytic structure of the thesis, distinguishing between: material assets (analysed in Chapter 7); management assets (analysed in Chapter 7); and social assets (analysed in Chapter 9).

The third area of literature that was reviewed concerned the empirical evidence relevant to ATP as understood in this study. Evidence on the strategies adopted by poor households to cope with illness costs showed these strategies are diverse and complex. However, two broad types of coping strategy can be identified from the literature and these were used to inform the conceptual framework in Chapter 1: treatment strategies designed to prevent financial or time costs from arising (cost prevention strategies); and strategies to minimise or manage illness costs if they do arise (cost management strategies). Figure 1.2 in Chapter 1 shows how these different categories of strategy fit into the analytic framework.

The studies reviewed suggest that social assets are the most important asset mobilised by households to cope with illness costs, and a few studies indicated that the poor are likely to have weaker social asset endowments and be more dependent on risky strategies such as borrowing at high interest. These findings generated specific interest in the role of social assets and explain why social assets have been given additional emphasis in the conceptual framework (see Figure 1.2).

The review of evidence relevant to this study's approach to ATP also identified a major gap in knowledge. There were no studies that had examined the implications of illness costs and related household coping strategies for household assets or livelihoods over an extended period. This thesis addresses this gap in knowledge by adopting a longitudinal approach that will follow case study households for an 8 month period (see Chapter 3).

The three areas of literature reviewed also inform the research methodology in three main ways:

1. *A livelihood approach requires in-depth research at the household level, to understand the assets and asset strategies that households have available and use to manage illness costs, including social assets. In addition, the implications of illness costs and coping strategies for household livelihoods over time require investigation, which requires an extended case study approach.*
2. *The ATP approach requires in depth understanding of household resource contexts. The literature review and the conceptual framework derived from it draw attention to the range of material and social assets that households draw on to pay for health care, and requires understanding of the resource contexts in which households are located that mediate household ATP for health care.*

3. *The evidence on coping strategies and the conceptual approach to ATP demonstrate the need for both qualitative and quantitative data to evaluate ATP for health care.*

These three methodological points are discussed in Chapter 3.

Chapter 3: Methodology

3.1 Introduction

This chapter presents and justifies the research methodology and methods used in the study, which are informed by the conceptual approach to ATP outlined in Chapter 1, and the conceptual framework derived from the literature in Chapter 2. In particular these concepts and frameworks demonstrate the need for in-depth investigation of household management of illness costs over an extended period, and the importance of understanding local contexts (such as the health system or access to credit) which mediate the household's ability to manage these costs.

Section 3.2 describes and justifies the research methodology, and then section 3.3 outlines the framework used to measure illness costs. Section 3.4 describes processes and methods of data collection in detail, dividing the research into three phases:

- Phase 1: selection of research sites, building trust and rapport and initial interviews;
- Phase 2: the household survey;
- Phase 3: the longitudinal study of 16 case study households over 8 months.

Measures taken to assure the quality of data collected are then described, and the final section describes certain steps used in subsequent data analysis.

3.2 Theoretical grounding and methodology

Chapter 1 stated the methodology leans towards an exploratory and inductive design rather than an experimental approach, because ATP from a basic needs and livelihood perspective remains relatively unexplored. Chapter 2 showed that a variety of concepts and frameworks have been used to define the problem of affordability and guide investigation, drawn from different disciplines. The aim is to use these different concepts reflexively with the activity of doing research or 'being empirical', to develop a coherent analytical description of the factors relevant to ATP. The overall approach is therefore one of 'theoretically informed' empirical work (Barnett and Blaikie 1994).

The conceptual approach to ATP outlined in Chapter 1 focuses on the implications of health expenditures or wage losses for household budgets and spending patterns, the strategies households adopt to mobilise resources to pay for care, and the impact that these illness costs and coping strategies have on household livelihoods, in terms of expenditure patterns, debt levels and assets (see section 1.2.1). The conceptual framework described in Chapter 1, derived from the literature in Chapter 2, then draws attention to the range of material and social resources that households might mobilise to pay for treatment or cope with illness costs. These concepts and frameworks informed the research methodology in three main ways, and the main features of this methodology are outlined in Table 3.1.

Table 3.1: Main features of research methodology

Methodology / approach	Rationale
1. Conceptual frameworks require in depth household research	
Extended case study approach (n=32) (Longitudinal study over 8 months)	<ul style="list-style-type: none"> ▪ Enables detailed investigation of household assets (especially social networks), income and expenditure patterns, illness costs and coping strategies. ▪ Captures variations in illness, treatment and illness costs over time, and fluctuations in household income available to meet the costs of illness. ▪ Captures the medium term impact of illness costs and coping strategies on household assets, income and expenditure patterns.
2. Conceptual frameworks highlight the importance of context	
Key informant interviews Frequent presence in communities Engagement in community activities Household survey (n=423)	<ul style="list-style-type: none"> ▪ Enables understanding of actors, events and activities in the two areas through conversation, observation, or more formal interviews ▪ Enables data collection on neighbourhood groups and CBOs in each community Household survey: <ul style="list-style-type: none"> ▪ Generate extensive data for statistical generalisation on illness, treatment, treatment costs and coping strategies. ▪ Used for selection of case study households. ▪ Locates case study households in their wider context (socio-economic, illness and treatment).
3. Conceptual frameworks require complementary quantitative and qualitative data	
Range of methods used	<ul style="list-style-type: none"> ▪ Makes use of the advantages of each method ▪ Enables complementarity and triangulation.

1. *The frameworks require in-depth research at the household level, therefore an extended case study approach was adopted.* Ability to pay research from a basic needs and livelihood perspective requires in-depth investigation of financial and wage costs associated with illness, household expenditure priorities and patterns, and the resources that households have available and use to manage illness costs, including social

resources. In addition, the implications of illness costs and coping strategies for household livelihoods over time require investigation. The research used an extended case study approach to collect this in depth and often sensitive and longitudinal data, since it cannot be elicited easily or accurately through questionnaire survey methods.

An extended case study approach offers other advantages for data collection over household surveys which are relevant to the proposed research. It allows the researcher to investigate processes and the links between events, to compare what people say with what they do, and to adopt an exploratory approach that can identify issues not expected to be related to the study problem (Mitchell 1983; Hammersley 1992).

A potential weakness of case studies is that they achieve greater depth at the expense of being able to generalise to a wider population of cases. But this thesis takes the position that the illness and livelihood experiences of case study households have relevance to other households with similar characteristics and in a similar social context. As Mitchell (1983) argues, case study material is generalisable but the inferential process is not statistical; it is based on analytic or logical inference about relationships and causal processes which have emerged from analysis of the case study. As Gluckman (1961) argues, “...*one good case can illuminate the working of a social system...*” (1961; 9).

The limits to analytic generalisation from case studies must be stressed. Clearly frameworks or relationships developed from case study analysis cannot claim to be universal relationships or ‘laws’ which apply to all situations. But with respect to the research presented here, the relationships identified from the case study households (for example that income-poor households have weak social assets) might be extrapolated to a wider population of households in a similar social and economic context in Sri Lanka. This ability to analytically extrapolate is strengthened by the fact that 32 households took part in the extended case study analysis, which meant processes related to illness, coping and livelihoods in similar households could be compared. In addition, the ability to infer that case study households’ experiences are likely to be shared by other households in similar situations is strengthened by methods that locate them in their wider socio-economic context (see below). For example using community-wide data a case study household can be judged to be ‘typical’ or ‘atypical’ with respect to its illness costs and the resources it relies on to manage these costs.

2. *The conceptual framework shows the importance of understanding the social and economic context in which case study households are situated. The research methodology was designed to understand these contexts.* The conceptual framework (Figure 1.2) is based on a livelihoods and health-related literature that draws attention to the range of material and social resources households draw on to pay for health care (Berman et al. 1994; Wallman and Baker 1996). The framework therefore requires understanding of the resource contexts in which households are located which mediate household ATP for health care. These include the labour market conditions and the availability of work; cultural and socio-economic factors that influence people's priorities and their spending patterns; or the nature of the health system and the health services available to people will mediate treatment seeking behaviour and the costs of illness. The framework also draws attention to the resources people mobilise to pay for treatment that are located 'outside' the household in the wider community, in particular their social assets such as friends and family, neighbourhood groups (e.g. revolving savings groups), or more formal savings and credit societies set up by NGOs. The nature and strength of these social assets are part of the local context: for example attitudes to borrowing and norms of reciprocity will mediate the resources that can be obtained from them.

The importance of understanding resource contexts led to the following methodological approach:

- the fieldwork was restricted to two urban sites in Colombo to enable the principal investigator (PI) to make frequent visits and develop relationships in each area;
- the PI developed links with CBOs in each area, became involved in some of their activities, and also set up an English class in each area following requests from local residents.

3. *The conceptual approach to ATP and the conceptual framework demonstrate the need for both qualitative and quantitative data to evaluate ATP for health care.* The research methods were designed to collect quantitative data for variables such as household income, expenditure patterns, illness costs, borrowing and savings. Qualitative data was also needed to analyse the decisions or processes underlying the quantitative data, or to explain other variables relevant to ATP for health care such as reasons for treatment seeking behaviour, decision-making with respect to management of illness costs, or people's attitudes with respect to borrowing from friends, relatives

and other contacts. A multi-method approach was used to capture the main benefits of each method and generate complementary data.

3.3 Frameworks for instrument design: approaches to measuring the household costs of illness

This study follows the methodology of Sauerborn et al. (1995; 1996a) to measure the household costs of illness. For each illness episode there is a complete assessment of financial costs, and wage costs that have an explicit financial impact on the household's current budget. Table 3.2 sets out the different cost variables to be measured for each illness episode experienced by survey and case study households.

Table 3.2 Cost variables to be measured for each illness episode

Financial costs	Wage (time) costs
Total financial costs (F) are: $F = (f_1 + f_2 + f_3 + f_4 + f_5 + f_6)$ where f_1 = financial costs of drugs, herbs etc.. f_2 = financial costs of tests, x-rays etc.. f_3 = financial costs of consultation with provider (doctor, hospital, priest etc..) f_4 = financial costs of transport f_5 = financial costs of subsistence f_6 = financial costs of vows to gods, prayer	Total time costs (T) are: $T = [(t_s * w_s) + (t_c * w_c)]$, where t = time costs w = daily wage rate s = related to the sick individual c = related to the caretaker(s)

A note on financial costs: a curative focus

A wide range of preventive behaviours based on magico-religious beliefs are common in Sri Lanka and on occasions can incur significant financial costs, for example protective amulets, prayer and cleansing ceremonies to the goddess *Paththini*. These preventive actions are central to many people's health beliefs, and some can be financially significant, but their scope and diversity meant the study considered only those that were financially significant, and focused primarily on the costs of curative care.

A note on time costs

Unpaid activities and potential gender bias

In an urban context the time costs most relevant to ATP are those which have an immediate impact on income: wages or business lost due to illness. The research focuses on these actual and immediate financial costs due to time off work, either because of incapacitation or because of caring for those who are sick. It does not attempt to convert lost days of *unpaid* activity into some sort of financial metric.

This raises concern that time cost measures will have a bias, particularly a gender bias, because the time costs calculated will not include unpaid labour. In response to this potential criticism the study does not attempt to 'value' (i.e. put a price on) losses of unpaid labour, because it is not a quantitative household costs of illness study which aims to quantify *all* costs of illness. It is only measuring illness costs relevant to ATP, which encompass its income, expenditure and command over commodities. Moreover, converting lost unpaid activities into financial terms is fraught with difficulties.

Relating this to the fieldwork, if a household member who does unpaid work falls ill and cannot perform their usual activities, for example a mother at home, there may be no change to household income. If the strategy adopted is to pay somebody to look after the children because the mother is confined to bed, these expenditures would be recorded. Or if her husband cannot earn wages because he is caring for his wife, any income loss would also be recorded because it affects command over commodities and ability to pay.

However, if a cousin or friend steps in to look after children or cook (i.e. labour substitution), the illness has no direct monetary impact on that household's budget so costs would not be recorded in financial terms. This is not to say there are no costs to such strategies, because costs can be significant: the children's childcare may not be satisfactory or a social obligation to return the favour may be the price. But it is not quantified in an ATP study. Instead the coping strategy of making claims on friends and labour substitution will be documented and its repercussions considered with qualitative data.

Converting lost days due to illness into income loss

For case study households, since the research aims to investigate the actual financial impact of illness for each particular household (rather than 'average' time costs for all households), the method of converting time lost into wages lost will be an actual one: the losses in income for that particular household. For the larger number of survey households reporting lost work due to illness, an average daily wage is used to calculate income loss (Rs.150).

3.4 Data collection: process and methods

Data collection was in three broad phases (Table 3.3). Three research assistants with at least two years fieldwork experience were recruited towards the end of Phase 1 to help

with the main fieldwork activities over 15 months, namely the household survey and the case study household research. They were sociology graduates recruited from the University of Colombo (Dept. of Sociology) and an international NGO (International Irrigation Management Institute).

Table 3.3 Overview of research phases and methods used in each phase

Phase / timing	Main methods	Other methods & activities
Phase 1: Nov 97 - Feb 98	<ul style="list-style-type: none"> • Semi-structured interviews & group discussions 	<ul style="list-style-type: none"> • Developing trust and rapport through frequent visits and helping at Community Development Councils
Phase 2: March – June 98	<ul style="list-style-type: none"> • Household survey 	<ul style="list-style-type: none"> • Semi-structured interviews • Teaching English • Helping at Community Development Councils
Phase 3: July 98 – April 99	<ul style="list-style-type: none"> • Case study households (fortnightly visits) 	<ul style="list-style-type: none"> • Observation • Daily conversations • Semi-structured interviews • Teaching English • Helping at Community Development Councils

3.4.1 Phase 1: Early interviews, site selection and developing trust and rapport

The main aims of activities in the first phase of research were to gather information which would inform the selection of 2 urban sites for research, introduce myself to the two communities and develop trust and rapport with key actors in each place, and conduct key informant interviews and focus group discussions with residents to collect data directly relevant to the research objectives, and to inform the development of the household survey tool.

Community selection

The main criteria used in drawing up a list of potential research sites or ‘communities’ were *poverty*, *size* (enough households in each place for a survey of about 200 households) and *distance* (my ability to visit the sites by bicycle each day and combine this with family responsibilities).

With respect to the poverty criterion, a systematic review of sites in Colombo using maps and socio-economic data was not possible because secondary data were patchy,

did not exist or were out of date. Instead key informant interviews¹ identified different ‘types’ of poor community, and narrowed down a list of sites which fitted the three criteria above.

Once a list of over 20 communities had been developed, the main factor influencing selection of the two research sites was largely subjective, based on acceptance and rapport. Each site was visited with the help of an outside contact, and selection was based on how comfortable residents and key community actors felt about my presence, and their acceptance, enthusiasm and support for me and the research. Also important was my personal judgement about the place with respect to the potential quality of data that could be collected at the site. On these grounds, the two sites selected were:

- Sri Siddatha Para (SSP) in Kirillapone;
- Obesekerapura (Obe) in Rajagiriya

(see Chapter 4 for their location and descriptions of the sites).

Developing trust and initial interviews

Once the two research sites had been selected I began to visit them on a regular basis, meeting a mix of community leaders and activists, getting known at local shops or small eating houses (*kadeval*). After a month, in both communities Community Development Council (CDC) leaders and other residents decided a good contribution I could make would be to conduct an English class for children and young adults.

After 2 months the PI had got to know various people, groups and organisations in each community, and was able to identify people for more formal interviews. Table 3.4 shows the individual and group interviews conducted in each community and the main issues explored in these interviews. The interviews were taped and transcribed. Other key informant interviews took place over the research period when relevant informants or incidents were identified (see Table 3.3).

¹ Officials from government departments (Urban Development Authority, National Housing Development Authority), Colombo Municipal Council; staff from NGOs (Sevenatha, Society for People Centred Development, National Forum of People’s Organizations) who had worked in various areas of Colombo; academics from the University of Colombo.

Table 3.4: Phase 1: individual and group interviews conducted in each community

Semi-structured interview	Main issues investigated / explored
<i>Individual / key informant:</i>	
Government officer for each community (Grama Seveka Niladhari)	history & development of the community; health & other issues or problems; dimensions of poverty & deprivation
Public Health Midwife at nearby municipal clinic	health problems & illness in the community; treatment seeking behaviour for different types of illness; reasons for treatment (costs, quality, etc.); services provided
3 Community Development Council (CDC) leaders	community history & government interventions to improve housing, water & sanitation infrastructure; CDCs & other CBOs; health & other service issues in the community
3 Women's group leaders	health
<i>Focus group discussions:</i>	
Group 1: Young women with children (under 30)	health problems & illness in the community; treatment seeking behaviour; reasons for treatment; coping with financial difficulties; women's savings and credit societies; other sources of credit
Group 2: Older women with children	

3.4.2 Phase 2: The household survey

Objectives and variables

The main aims of the household survey in the second phase of research were to:

1. generate community-wide data on illness, treatment, treatment costs and coping strategies;
2. provide an extensive sampling frame for selection of case study households;
3. generate a socio-economic profile of the two communities and locate case study households in their wider context (socio-economic, illness and treatment).

An English version of the survey instrument and a code sheet are in Appendix A1, and Appendix A2 shows a Sinhala copy of one of the completed questionnaires (the questionnaire was translated into Sinhala by the research team and checked by an independent translator). Section 1 of the household questionnaire covers demographic variables for all household members and an overview of members' illness. Sections 2–5 then cover chronic illness, childbirth, hospitalisation in the last year, and acute illness respectively, focusing on responses to the illness, money spent, cash availability and sources of money if cash was not available, and days of paid or unpaid activity lost due to illness. For acute illness a two week recall period provides a good compromise between the number of illness episodes captured and accuracy of recall. For chronic

illness a longer recall period of one month was used because earlier interviews had found many people with a chronic illness obtain regular treatment once per month. For childbirth and hospitalisation a one year recall period was used because it was assumed people would have more accurate recall of these events.

Finally, section 6 of the survey collects basic data on people's involvement in community organisations, their borrowing and use of social networks at times of illness or financial difficulty, and socio-economic data on variables such as housing, expenditure, work and income.

The difficulties of measuring household income through a survey instrument are well documented, but the household survey needed a measure of household income to address Objective 1: *to measure the household costs of illness and the financial burden these costs impose on household budgets* (see Box 1.1). Income levels were assessed using detailed expenditure data, rather than statements about income which were likely to be inaccurate. Questions about income were left until the end of the interview, only after the expenditure data had been collected.

The three research assistants were trained over 3 days to use the survey instrument, and it was piloted in a small community about a mile from SSP. The pilot itself was a useful training exercise and prompted substantial changes to some sections of the survey. From the pilot a basic acute illness prevalence rate was estimated (15%), and this figure was used to calculate sample size.

Sample size

The necessary sample size for a 95% confidence limit (data are correct in 95% of cases), and a sampling error of 1.5% (sample values do not deviate from the true population values by more than 1.5%) was calculated using a standard formula:

$$N = Z^2 \times p(1-p) / d^2$$

Where:

Z = confidence level: in this case for data to be correct in 95% of the cases, Z = 1.96
 p = proportion of sample with given characteristic on which you are focusing; in this case illness episodes, and from the pilot survey 15% of individuals reported illness
 d = sampling error: in this case for the sample data not to deviate from the true population value by more than 1.5%, expressed as 0.015.

The calculation of sample size was then as follows:

$$(1.96)^2 \times (0.15)(0.85) / (0.015)^2 = 2177 \text{ individuals}$$

Assuming an average household size of 5.5 individuals (based on the pilot study), a household sample size of 396 was required to achieve a 95% confidence limit and sampling error of 1.5%.

Sampling strategy

The lack of an up to date household list was the main constraint to a purely random sample in each community. Instead a *systematic* sampling strategy was used because: (a) it is still random (every household has an equal chance of being selected); (b) it is practical and quick (a full sample frame is not needed), and; (c) it ensures households in every geographical part of the community are included in the sample (a purely random sample might produce spatial clusters in the sample and exclude households from certain sub-areas).

The survey area for each site was mapped out using information collected in Phase 1. In Sri Siddatha Para (SSP) the boundary to the site is fairly well defined because it is a designated government 'development project' area², with canals defining two sides of the site and high walls of private houses the boundaries to the other two sides. Obesekrapura (Obe) has a defined administrative boundary and is a larger area with many different neighbourhoods, and some of the upper middle class or upper class residential areas were not included in the survey. In Obe the more mixed or relatively crowded and poorer neighbourhoods were selected for the survey, using knowledge of the area developed in Phase 1.

It was estimated that in SSP there were 600 household units, and in Obe 1400 units in the neighbourhoods selected. This led to a systematic sampling interval of 1 in 3 households for SSP, and 1 in 7 for Obe to obtain a sample of about 400 households.

3.4.3 Phase 3: Case study households

The questionnaire survey was used to select 32 case study households (16 in each community) that were followed over an 8–9 month period. These households were the

² In the 1980s the central government, through the NHDA, took the site from private landlords, filled it and raised the canal banks, and allocated small plots of land in rows to the families illegally settled there (see Chapter 4).

main component of the research and the data collected from them were used to address all the research objectives, particularly objectives 2, 3 and 4 (see Box 1.1).

Household selection

The households were selected purposively, in order to achieve a mix of household types that represented the broad range of households in both communities. The two main criteria used to select households were socio-economic status and the overall health of household members. ‘Households with illness’ were those that had reported long term or chronic illness (for example diabetes, asthma, cancer). Households with both mild and more serious cases of chronic illness were included, judged by the costs of illness or statements about the impact of the illness on the household. Healthy households were those that reported no illness during the survey.

Table 3.5 shows how these two broad criteria led to the selection of 4 main types of case study household with roughly 8 households in each category, split equally across the two sites. Within each sub-category of household (e.g. poor households with illness), different household sizes and structures were also included to obtain a greater mix of situations: a large and small household.

Table 3.5: Two household selection criteria generate four broad types of household

	Poor / vulnerable	Better-off / more robust
Households with illness	8	8
Healthy households	8	8

Household consent and frequency of visits

Potential case study households were approached and the research and what was expected of them was explained in detail. Verbal consent to enroll them as case study households was then sought from senior figures in the household (usually the husband and wife).

Each research assistant was allocated 10 or 11 households to follow for 8 months, and visited each household every two weeks. About 16 visits were therefore made to each household. The PI visited each household at least once every two months, but visited those that were revealing more interesting data every two weeks, accompanying one of the research assistants. The visits were informal and took up to 2 hours, with researchers staying for a drink and in some cases lunch or dinner. The interviews were usually conducted with a female member of the household because men were at work and

women were better respondents for questions relating to illness and daily spending. In a few cases the man was the main respondent.

Variables to explore or measure

In the first visit the household history was investigated, assisted by the visual technique of time lines (Pretty et al. 1995). This topic and the visual techniques employed were a very good way of 'breaking the ice', stimulating discussion and laughter (as well as sadness and tears in some cases), and obtaining a huge range of insights about the household or family. In the first visit illness in the last two weeks, treatment and illness costs were also investigated.

In all subsequent visits a standard set of topics were investigated through semi-structured interviews (see Table 3.6) using standard data collection forms. Notes were written not tape-recorded in these interviews. In addition some interviews over the 8 months covered special topics necessary for the research objectives (Table 3.6).

Table 3.6: Topics and variables investigated on case study household visits

Standard topics covered each visit	Special topics covered in some interviews
<ul style="list-style-type: none"> ▪ Illness in the last two weeks, responses & reasons for these responses ▪ Illness costs: financial and indirect ▪ Coping with illness & its costs ▪ Spending on non-daily items (schooling, clothes, gas, electricity, social activities etc.) ▪ Borrowing and saving ▪ Work routines, income & other inward cash flows ▪ Activities in the community, with CBOs etc. 	<ul style="list-style-type: none"> ▪ Daily or weekly shopping patterns & daily or weekly spending patterns ▪ Perceptions of quality of care ▪ Trust, relationships in the community, & membership of <i>seetu</i> or savings & credit groups ▪ Basic needs and perceptions of wealth, poverty ▪ Changes to household livelihoods over time.

Data collection tools used during interviews included *visual techniques*, such as the aforementioned time lines and social network maps (after Wallman 1984; 1996), and also *household expenditure diaries* for daily and weekly items, which household members filled for selected weekly or two-weekly periods. The household was given a sheet with a long list of items, on which they filled the amounts spent on these items (see Appendix A3 for an example).

Incentives

The survey, and in particular the extended case study research, is invasive and asks people to devote time to it. Incentives were offered to case study households and the community as a whole, through: (a) the offer of a small gift at the end of the research

period to case study households; and (b) the offer that the PI could teach English in the two communities on a weekly basis.

Selection of primary case studies

When the research ended 16 case study households were selected as *primary case study households for analysis* in Chapters 5–9. Although fieldwork started with 32 households, only 25 households were visited every 2 weeks over the full 8 months: 1 household dropped out; 1 moved away; in 2 households it became very difficult to meet the key respondent (female) because they found work or new work routines (as a strategy to increase household income); and in 3 households it became clear respondents were reluctant to participate in the research so they were thanked and visits stopped.

From the 25 households, 16 were selected for primary analysis:

- because the best and most reliable data was collected from these 16 households;
- because they still represented the mix of household types originally intended in the selection procedure (poor and better off, ‘healthy’ and ‘sickly’, and some different household sizes);
- to make data analysis more manageable given the large volume of data collected.

Data from the other case study households, particularly qualitative data, is brought into the analysis when it illuminates, triangulates or contradicts findings from the 16 core households.

Anonymity

For analysis purposes the case study households were given pseudonyms for confidentiality.

3.5 Quality assurance

A series of quality control measures were included. For the household survey:

- certain questions were cross-checked with local people and the survey was piloted;
- each questionnaire survey was checked by the PI, and if there were any gaps, inconsistencies or doubts about the data the research assistant returned and checked the information;

- triangulation: there were questions within the survey instrument that double-checked certain responses.

And for the case study households:

- a constant process of triangulation: for example interview data on spending and income checked against diary entries; cross-checking information with different household members at different times;
- regular debriefing sessions with research assistants: for the PI to check on progress with all case study households, and to identify gaps and problems with data. Additional questions and follow-up activities could also be recommended by the research assistants, increasing their role in the research process from 'data-gatherers' to 'co-investigators'. Increasing their voice and commitment to the research was essential for the lengthy research exercise proposed;
- participant checking: in some instances to test the credibility of findings the researcher's own records and interpretations were read by (or read back to) the respondent; the findings could then be challenged and additional information added;
- prolonged and intense engagement between researcher and researched builds trust and rapport.

3.6 Data analysis

Quantitative data from the household survey were analysed using SPSS statistical software. Quantitative data from the case study households were analysed using MS Excel spreadsheets. Qualitative data from key informant interviews, focus group discussions and regular interviews were categorised and indexed in MS Word.

Two specific methods of analysis are outlined in more detail below: the first concerns analysis of income data from the household survey, and the second the method used to define a poverty line for analysis of case study households' ATP for basic goods and services.

3.6.1 Household survey data: a note on household income and household per capita income

The research needed a simple way of assessing household socio-economic status (SES), firstly to compare variables such as illness costs across different household groups, and secondly for subsequent selection of case study households. Data from the survey on housing materials and ownership, or access to water and electricity, were potential methods of categorising households, but were fairly blunt and meant the vast majority of households fell into the same SES category.

An alternative way of assessing SES was to collect household expenditure information and to use this as a measure of household income. Household expenditure was disaggregated into a range of items, and respondents were asked what the household spent on each item in a given time period (daily, weekly, monthly etc.). Although this is inevitably open to error and strategic bias, particularly with respect to sensitive items such as drugs, it builds up a more accurate picture of household cash resources than open questions about income (Casley and Lury 1988; Gregory and Altman 1989).

Household expenditure data were used to allocate households to SES categories, but to do this total household expenditure was converted to per capita expenditure (income) for each household. This takes into account different household sizes, for example the higher resource demands faced by larger households (for food etc.).

To calculate per capita household expenditure, total household expenditure was divided by the number of household members, but children under 10 were given a value less than one because of their lower resource (mainly food) demands. The way these age-weightings were calculated is shown below.

The daily recommended nutrient allowance for an adult male (2500 calories) and an adult female (2200 calories) were used (following Nanayakkara (1994)) to calculate an average calorie requirement for 'adults' (2350 calories). Nutrient allowances for 5 different child age groups were then used to calculate an adult-child ratio or weighting (Table 3.7). The final column is the simplified ratio for each child age group used in household per capita expenditure calculations. For example a 6-member household comprised of 2 adults, a 13 year old, a 9 year old and a baby under 1 would use the denominator 5.10 for its per capita expenditure calculation.

Table 3.7: Child age ratios used in per capita income calculations

Age	Calorie need (male and female) for this age group	Adult calorie requirement (male and female)	Ratio	Ratio used for data analysis
<1 year	818	2350	0.348	0.35
1-3 years	1212	2350	0.516	0.5
4-6 years	1656	2350	0.705	0.75
7-9 years	1841	2350	0.783	
10-12 years	2326	2350	0.99	1.0

Once per capita expenditure (income) had been calculated for the 423 survey households, per capita income quartile groups were calculated. In this analysis a household's SES was determined as one of these four quartile groups.

3.6.3 Case study households: basic needs, poverty lines and livelihood change

Calculating poverty lines using basic needs (for Chapter 7)

In Chapter 7 a local basic needs poverty line is used in analysis, equivalent to the amount of money needed to purchase a defined bundle of goods and services. Household incomes, which usually fluctuate, are compared with this basic needs poverty line to assess whether basic consumption or investment needs can be met, including health care.

The essential problem with this affordability analysis is to define the basic needs commodity bundle. This analysis defines basic needs from the perspectives of the case study households and other residents in the two communities, listing people's priorities using data from:

- specific interviews with case study households to elicit what they considered basic necessities;
- case study household spending data which reveals the priorities of decision-makers within the household;
- observation and less formal conversations with people in the community over one year;
- the PI's existing in-depth knowledge about people's attitudes to food, clothing, housing, rites of passage, religious and social festivals, derived from living and working in Sri Lanka for five years.

For most people in the two communities, basic needs were divided into two categories:

- daily or routine needs, such as food, fuel, soap, mosquito coils and bus fares, and;
- non-daily, irregular or unexpected needs, such as clothing, education, health care, electricity and water bills, rites of passage such as weddings and funerals, housing rent and household goods.

This distinction was made because daily and non-daily costs often have very different practical implications for household financial management, because the latter are often 'lumpy' and take household spending beyond the scope of daily or monthly budgets.

The items people listed as daily and non-daily necessities were added together to form a bundle of goods and services that were defined as minimum basic needs in their cultural and urban context. This bundle of goods and services was used to calculate the local poverty line.

However, for analytic purposes *health and education were removed from this minimum basic needs package* (even though still defined as basic needs). This is because when income and the minimum basic needs poverty line are compared, the analysis will show what income is left to finance the additional necessities of health care and education, after all other necessities have been met. For example if a household has no surplus cash after minimum basic needs are met, the implications of even minor illness costs will be to take the budget into deficit.

The bundle of commodities most frequently defined as minimum basic needs are set out in Table 3.8, in terms of whether household spending on these items is on a daily, weekly or monthly basis. The spending figures for food are based on the quantities needed to cook 3 basic meals for a household of two adults and three children over 10 years of age. The quantities and prices are based on interview data, household spending data and the researchers' own knowledge of local food prices. Prices are from late 1998 and early 1999.

Table 3.8: Minimum basic needs

Daily spending	Rs.	Weekly spending	Rs.	Monthly spending	Rs.
rice	36	milk powder	45	electricity	80
bread	16	meat/fish	75	water	40
sugar	8	eggs	18	clothes	50
tea	5	dried fish	28	social events / visits	50
coconut	10	matches	10	housing maintenance	50
vegetables	25	spices	20		
lentils	16	kerosene	30		
toothpaste	3	washing powder	12		
soap	10				
mosquito coil	4				
daily transport	12				
daily food at work / school	30				
firewood	10				
SUB TOTAL	185		238		270
		+ daily expenses	1295	+ daily expenses	5550
				+ weekly expenses	952
TOTAL SPENDING: per day	185	per week	1533	per month	6722

Note: money needed for housing was usually minimal because in these areas government had allocated land and people were not paying money for land or housing.

Table 3.8 indicates that a minimum needs poverty line for a household of five people was Rs.6772 per month, and on a per capita basis:

- a monthly minimum basic needs poverty line was Rs.1354 ($6772 / 5$);
- a daily minimum basic needs poverty line was Rs.45 ($6772 / 30$) / 5.

This minimum basic needs poverty line is lower than the World Bank's one dollar per day poverty line ($\$1.00 = \text{Rs.}65$).

Assessing changes to livelihoods (Chapter 6)

A basic asset framework for assessing livelihood change, used in Chapter 6, was derived from the literature review of assets and livelihood frameworks in Chapter 2. It is summarised in Table 3.9. Chapter 4 describes case study household livelihoods in terms of this range of assets and income, placing them on a spectrum of vulnerability or robustness when case study research started in July 1998. Chapter 6 then evaluates in detail livelihood change over the 8 month research period, and uses a similar asset framework to trace the links between illness costs and livelihood change (Table 3.9).

Table 3.9 Summary of main livelihood dimensions assessed

Livelihood dimension	Quantitative dimension or detail	Qualitative dimension or detail
<i>Human capital / labour</i>	<ul style="list-style-type: none"> • no. of workers • dependency ratio 	<ul style="list-style-type: none"> • job and income security • investments in human capital: training and skills
<i>Income</i>	<ul style="list-style-type: none"> • income level 	<ul style="list-style-type: none"> • purchasing power: perceptions about changes to real income due to price changes
<i>Physical capital</i> land & house basic services other assets	<ul style="list-style-type: none"> • plot size • no. of rooms • no. of income earning assets • no. of electrical goods or furniture items 	<ul style="list-style-type: none"> • building materials used • public or private? • invested in private supply? • type – big or small investment? • types of good
<i>Social capital</i>		<ul style="list-style-type: none"> • friends, relatives and contacts that can be relied upon, who help when need arises • membership of CBOs that offer credit or support
<i>Financial capital</i> savings / seetu jewellery	<ul style="list-style-type: none"> • value • no. of items or value 	<ul style="list-style-type: none"> • Comments about ease or difficulty of saving • overall gains or losses (from pawning)
<i>Debt</i>	<ul style="list-style-type: none"> • value 	<ul style="list-style-type: none"> • purpose: for investment or consumption?
<i>Expenditure</i>	<ul style="list-style-type: none"> • value • no. of meals / day 	<ul style="list-style-type: none"> • changing patterns: reductions? • food consumption: quality of meals; fish or meat how many times per week • delays to payments at shop?

3.7 Summary

This chapter has justified the selection of the country and region studied, described the research methodology, research methods and the process of research. It also clarified analytical approaches used in subsequent chapters. The research methodology, which mixed a wider household survey with case study work, drew from the experience of other studies that have examined household coping strategies (Sollis and Moser 1991; Moser 1996; Seeley et al. 1995). However, a new element of the methodology was the duration and in-depth nature of the case study household research, an approach that has not before been used to measure household illness costs and related coping. The

research methods also drew on recommended practice from previous studies, but were adapted to the conditions of urban Sri Lanka.

Chapter 4: Livelihood contexts relevant to vulnerability and ability to pay for health care

4.1 Introduction

This chapter describes the communities in which the research took place, in terms of the livelihood assets and strategies available to people. It also describes the 16 case study households that are the foci of analysis in Chapters 5–9. The chapter addresses two main questions derived from the livelihood asset frameworks outlined in Chapter 2:

- what *livelihood contexts* influence household asset portfolios, cost burdens, vulnerability and ultimately ATP for health care?;
- what livelihood assets and strategies in the two communities, and for the case study households in particular, are most relevant to household vulnerability or robustness, and ATP for or cope with illness costs?

Section 4.2, which describes livelihood contexts and assets in the two study sites, is structured by the components of livelihood outlined in Chapter 2, distinguishing between physical, social, financial and human assets. Section 4.3 then describes people's livelihood strategies in the two areas, focusing on how they use their most important asset, labour, and their income patterns. Section 4.4 describes the 16 case study households in terms of their assets, income and vulnerability.

The main objective of these descriptive accounts is to provide contextual material relevant to analysis in Chapters 5–9, which consider:

- the way households interact with the livelihood contexts described in this chapter, especially health services (Chapters 5, 6 and 8);
- the implications of the vulnerability described in this chapter, especially the way insecure and fluctuating incomes influence ATP (Chapter 7);
- the way households mobilise their assets to cope with illness costs, especially financial capital and social networks (Chapters 7 and 9).

In addition, because this chapter is the first that analyses the data collected, it ends by highlighting the main livelihood contexts relevant to ATP that are discussed again in the concluding chapter.

The data used in this chapter come mainly from key informant interviews and the household survey, conducted in Phases 1 and 2 of the research respectively. Some sections also draw on more in-depth qualitative data collected in Phase 3, for example people's ideas about trust and reciprocity and how this mediates social assets. Some secondary sources are also used, particularly for the overview of the health system.

4.2 Basic description of the two communities: livelihood contexts and assets

4.2.1 Physical assets: the important role of government intervention

During the 1980s several policy initiatives affected the development of the two study sites, especially the Million Houses Programme (MHP) which ran from 1984 to 1989. This programme had two major impacts: it improved housing and basic service provision, and it initiated the formation of CBOs devoted to 'developmental' activities. The National Housing Development Authority (NHDA) and the Colombo Municipal Council (Colombo MC) were the agencies responsible for implementing the MHP in Colombo. Existing low income settlements with no service infrastructure were identified for improvement. The government purchased the land from landowners, small plots were allocated to existing residents, and cheap housing loans were provided. Basic water, drainage and sewage services were then gradually developed.

Underlying the MHP and NHDA activities was a philosophy and commitment to increased community participation in projects, which marked a radical break from conventional, top-down approaches to development. To establish partnerships with communities, the NHDA and Colombo MC trained community animators to set up Community Development Councils (CDCs) in the sites identified for improvement. A second and more significant process was the evolution and use of Community Action Planning (CAP), a methodology used by the NHDA to enable residents to participate more in urban housing and service projects¹.

¹ CAP was a major reversal of bureaucratic approaches, consisting of one or more two-day workshops in which residents, CDC leaders and government officers came together to discuss and prioritise community problems, and develop solutions in the form of a structured Community Action Plan.

Both the study sites were involved in and benefited from these projects during the 1980s and early 1990s, but not all areas in each community have been improved. Sri Siddatha Para (SSP) is a small, densely populated, low-income settlement of about 600 households, located in Kirulapone ward in the southern part of the city (see Figure 4.1 (map)). It is one of the many settlements that have grown up next to canal banks in Colombo, in this case along the banks of the Dehiwela canal at the point where it joins the Kirulapone canal. Until 1987 it remained an unplanned settlement, with cramped and poor housing conditions and no basic services, and was flooded regularly during the rainy season by dirty canal water (the canals were the only toilet facilities available).

Government projects have transformed the community with respect to infrastructure and environmental health: the land was filled and canal banks raised so flooding is rare. The NHDA then divided the area into 5 parts (*kotas*), A-E, and established a CDC in each area. In areas A, B and C, the NHDA worked closely with CDCs to allocate plots of land, provide cheap housing loans, and basic services such as drainage, water supply and electricity were installed.

The impact of these projects is very visible in areas A, B and C: small brick houses along planned lines (some families have added a second floor), lanes with drains, water supply and electricity (Figure 4.2, photograph 1). However government urban development projects were scaled down or stopped in the first half of the 1990s due to resource shortages and a change in government, so these improvements were not repeated in the other half of the settlement (areas D and E). Families were allocated smaller plots of land and money for housing, but only enough to build a small wooden house and there has been no basic service provision (Figure 4.2, photograph 2). Some NGOs have provided common toilets.

Figure 4.1: Location of study sites and main public health facilities used by study population

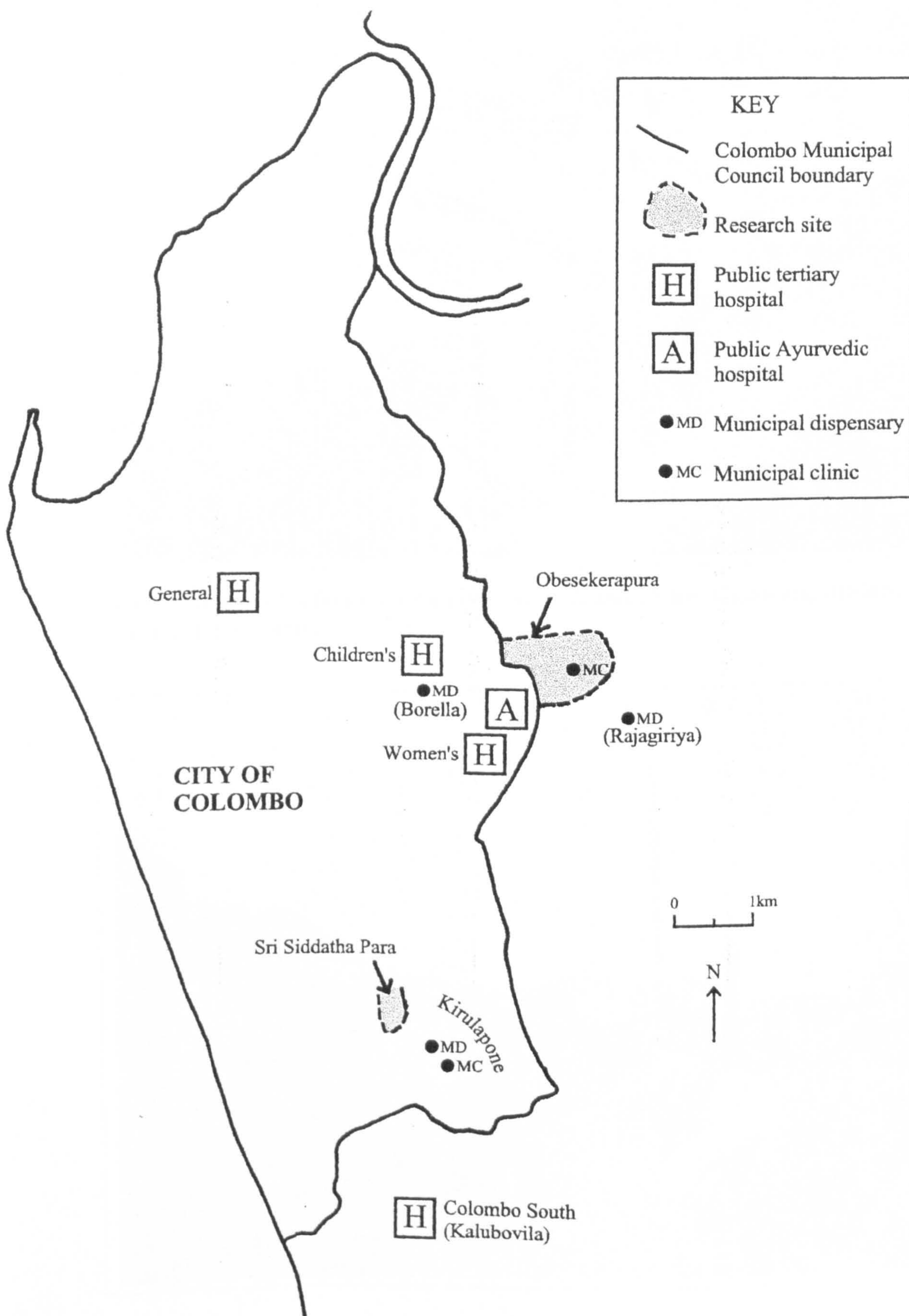


Figure 4.2: Visual impressions of Sri Siddatha Para (SSP)



Photo 1: Improved infrastructure in Areas A, B and C: brick housing, drainage, sewers and electricity.



Photo 2: Limited infrastructure in Areas D and E: wooden housing, no drainage, sewerage or electricity.

Figure 4.3: Visual impressions of Obesekrapura (Obe)



Photo 1: Improved infrastructure in some areas: organised and brick housing, roads, drainage and electricity on Nanayakkara Mawatha.



Photo 2: Limited infrastructure in Arunodaya Mawatha: disorganised and wooden housing, no drainage, although electricity installed.

Obesekerapura (Obe) is an older and larger settlement to the west of Colombo (Figure 4.1), just beyond the border of the Colombo MC, with a population of about 1500 households (about 7500 people). It has several different areas or neighbourhoods, each upgraded by NHDA projects, but to different degrees and with different levels of success. As in SSP, the areas first targeted for improvement benefited most from infrastructure development because the policy was a government priority and the NHDA had more resources to invest. Since 1992 other areas have benefited less from urban improvement initiatives, notably *Arunodaya*, a marshy area filled for the resettlement of poor households from other parts of the city. This area, known as ‘Somalia’ to many people who live nearby, still suffers from poor housing and lacks basic water and sanitation services. Like SSP, Obe has areas that have been substantially improved, such as *Nanayakkara Road* (Figure 4.3, photograph 1), and others with few improvements such as *Arunodaya* (Figure 4.3, photograph 2).

Box 4.1 summarises the main implications of these developments for household budgets. In addition to investments in physical infrastructure, government interventions at this time created CDCs, and for the brief period it lasted the CAP methodology increased community involvement in projects and the number of activists willing, and to some extent trained, to participate in their community’s development. Furthermore, the NHDA was instrumental in starting up another type of CBO more relevant to ATP for health care: women’s savings and credit societies.

Box 4.1: Physical assets: main features relevant to household cost burdens and budgets

- People allocated small plots of land under government urban development projects; most did not pay for land and do not incur costs for land today. However, most households do not have official deeds to their property.
- NHDA provided cheap housing loans to build foundations and some walls; or later provided cash for wooden building materials. Most people are not repaying NHDA loans so housing costs are negligible for many households. However, some who have borrowed from other sources to invest in housing incur monthly repayment costs.
- In some of the neighbourhoods the government has installed infrastructure such as drains, main water pipes, stand pipes and electricity. Households invest in their own water and electricity connections and pay monthly water rates and metered electricity bills.

4.2.2 Social assets

Chapter 2 noted that this research focuses on household social assets relevant to ATP for health care at two levels: neighbourhood groups and community-based organisations that provide financial services; and inter-household relations and social networks that provide financial support at times of illness. This section summarises the CBOs relevant to ATP that exist in the two communities, and provides some background data on the nature of trust and reciprocity that has implications for the extent and nature of people's social networks in urban Colombo.

Neighbourhood groups and CBOs

Several types of traditional CBO were identified in the two communities, such as welfare and religious societies, but the two most relevant to this research are rotating savings groups (RSGs) and funeral societies or death benevolence societies.

Rotating savings groups run a savings practice known as *seetu*. To obtain a large sum of money, for example to pay for an expensive commodity or event (usually a rite of passage) or to repay a loan, the most common savings institution available to poor households in Colombo is the *seetu*. In its simplest form, this consists of a group of people, usually known to each other in the same neighbourhood, and usually women, who pay a sum of money each month (or day, or week), and each month one of the women takes the full amount, until each has taken the lump sum. For some *seetu* groups the saving cycle then starts again. Its advantage is its simplicity, and you get back exactly what you put in. But it relies heavily on group trust because members must be reliable with payments and must continue to pay after they personally receive the lump sum.

Funeral societies or death benevolence societies are a traditional form of insurance against the costs of funerals, and when people join a group they pay a premium each month in return for financial help following a death.

In addition to these traditional groups, since the 1980s CBOs have emerged with a 'developmental' objective, often created by government and NGO agencies. Most relevant to this research was the creation of women's savings and credit groups by the NHDA, based on the *seetu* tradition. In 1989 the NHDA implemented an innovative

community animator programme (the *Praja Sahayaka Sewa*). This trained community workers from low-income areas and sent them back to offer support to CDCs and also promote and establish women's mutual help groups, which had as their main objective savings and credit for poor women. These groups have grown into what is now known as the Women's Bank (*Kantha Bankuwa*) (see Box 4.2). Two similar types of savings and credit group were also encountered in the two settlements, formed by two other NGOs.

Box 4.2: The Women's Bank

The *Praja Sahayake Sewa* and women's mutual help groups broke away from government control due to the attitudes and restrictions of the bureaucracy and adopted NGO status in the early 1990s. This originally state-led initiative has now developed into a large network of women's savings and credit groups, and by 1999 thousands of women in Colombo were members of the Women's Bank, organised on similar lines to the Grameen Bank in Bangladesh.

To start a new group, trained members of the Bank enter a community and encourage women to start small savings groups. Women organise into groups of 7–10 people, with a Treasurer, Chairperson and Secretary, and each member must save a small amount each week (Rs.5). After several weeks, the group can officially register and get training, advice and official savings books from the umbrella NGO organisation. Each group must belong to a 'branch', which consists of about 10–15 groups, and branches are affiliated to the central office in Colombo. A branch of the Women's Bank was established in SSP the year the research started, with 10 groups of women, and in Obe a branch was formed a year earlier with 15–17 groups.

Initially women can take a small loan of Rs.100, and the borrowing limit gradually increases as repayments are made and savings increase. The main motivation to join a group is the low interest rate of 1% per month charged on loans, compared to the 15–20% charged by moneylenders.

Data from the household survey indicated the most popular CBOs in terms of membership by individuals were:

- Women's savings and credit groups: 10% of women over 19 reported membership;
- Community Development Councils (CDCs): 6% of adults over 19 reported active membership of a CDC (attending any meetings);

Funeral societies: 6% of adults over 19 reported membership of a funeral society.

Membership of other groups (religious, welfare, sports, youth) was much more thinly spread, with less than 1% of the adult population involved in each of these societies.

Inter-household relations: neighbours, gossip, trust and reciprocity

Social interaction and 'good neighbours': the role of gossip²

For most women and some men in the community, a trustworthy and 'good' neighbour was defined in terms of their propensity to spread rumour and gossip (*keelam*), and 'the way they talk' (to others). A good and trustworthy neighbour (and friend) is somebody you trust to keep things in confidence, with whom you can talk about sensitive issues and share problems. A bad neighbour is somebody who spreads rumours about people:

"Good neighbours are those who don't talk about things I ask them not to talk about, honest people... To maintain friendships if we are told something personal we do not tell it to others. But many are not like that here" (Amali).

"We consider those who repeat what we tell them to others as bad neighbours" (Nandawathi).

"I trust those from the way they talk – those who don't carry tales. If one gets together with people who carry tales problems will arise" (Selvaraja).

"They are trustworthy if it is possible to even tell them about a problem at home" (Geetha).

These definitions of trustworthiness, of good or bad neighbours, were used by all respondents, irrespective of education, income or gender, although women in particular stressed this 'gossip' criterion. And the qualitative data collected suggests that, in general, there was limited trust among the women who lived along the narrow and densely settled lanes of SSP and Obe. Fear of gossip and rumour, and fear of being labeled a gossip, were significant factors limiting casual daily interaction. People talked about the 'dangers' of 'associating' (*ashraya kerewewa*) with all but a few neighbours, because talk can lead to more talk, fights, broken friendships or trouble in the neighbourhood:

"Trust comes from the way people talk. They talk to me as if they are loyal to me, then they talk about my faults to someone else. Or I hear someone discussing somebody else's faults, and I think they may be like that with me, so I cannot trust them. That's why I never get involved in conversation with people. We hear, no, the things that are said by those in the neighbourhood, and I think if I associate then it will be the same for me... If you go to chat and tell people all your problems and sorrows at home, for example if there is no food to eat, then those things are told to others" (Sumithra).

² The qualitative data presented in this sub-section comes from routine case study household interviews, other specific interviews on trust and reciprocity, and daily events and conversations seen and heard in the two communities.

“If one associates too much it is difficult to live in these villages. Problems arise. I only associate if there is a death, a wedding, or a serious problem, then I go to their houses. At other times I talk but I do not go to houses aimlessly” (Charlotte).

“Good neighbours are those who talk straight but there are no such people here – they speak nicely to your face but later they find fault and talk about these faults to others. So I mind my own business – eat, drink, watch TV, sleep” (Selvarani).

Much of this gossip was explained by ‘jealousy’ (*irshyawa*):

“People don’t like other people doing well also, no. That is why they fight. They look into other people’s business, how much you earn, carry tales about you” (Valli).

“Bad neighbours frequently carry tales and make people jealous ...everyone is against me because they do not like me living well...they can’t stand the fact that I have come from a village outside and am living well” (Pushpa).

Fear of gossip and ‘getting too close’ to people had several implications for the size of social networks, borrowing behaviour and relations of reciprocity:

Network size: People restricted their conversation and network of friends to a small group, a few close neighbours who could be trusted and perhaps a few relatives who lived nearby. This was the case for both women and men, although women appeared to be more active in their daily interactions and conversations with close friends:

“I am close to one neighbour only – I can tell her everything. I am also close to my sister-in-law but I cannot tell her everything because things may leak out. Water is only put into a container if it can be retained. If there are any holes it won’t be put” (Chandini).

Borrowing behaviour: asking for financial or help of other sorts was restricted to these very small groups:

“We smile and talk with everyone but we don’t associate with any one here or visit anybody’s house. I only trust one person here and go to visit her. She is a good person. We can talk about anything and I can ask about money” (Agnes).

“When my brother died my best neighbours helped me a lot in terms of money and work. They also took me to get medicine. They lend money without interest if there is an emergency” (Charlotte).

In addition, the fear that neighbours may find out you are in financial difficulty or asked for help (i.e. charity), and the loss of self esteem resulting from this being made public, meant that borrowing from people outside the community was a preferred option, usually from a relative, the workplace or a moneylender (see Chapter 9). Men particularly used their workplace contacts for loans.

Reciprocity within relationships: although people had neighbours from whom they could ask for help, they usually felt obliged to return the favour. They could not be seen to be 'owing' because this debt could be used against them at a later date by that neighbour, either through rumour and gossip or in other arguments that might arise.

Reciprocity in the neighbourhood therefore leaned towards being *balanced* rather than *generalised* (see Chapter 2). Money is rarely given without expectation of repayment, even among extended family. Box 4.3 summarises the relevance of these social assets for household ability to cope with illness costs. Chapter 9 examines the role of social assets in enabling households to cope with illness costs in more detail.

Box 4.3: Social assets: main features relevant to household ability to cope with illness costs

- ❑ Traditional rotating savings groups (*seetu*) offer a financial service that provides large sums of money to meet 'lumpy' (i.e. large) spending demands.
- ❑ Savings and credit groups such as the Women's Bank, introduced by government agencies and NGOs, offer small loans at low interest.
- ❑ There is limited trust beyond a small group of friends & neighbours, which limits relations of reciprocity and borrowing networks in the community.
- ❑ Due to fears of gossip and losing self esteem, people prefer to borrow outside the community: bridging ties are often more important than bonding ties.
- ❑ Due to fears of gossip and losing self esteem, reciprocity among neighbours tends to be balanced not generalised.

4.2.3 Financial assets

Many of the financial assets available to households (mainly their savings or credit facilities) are closely related to, or synonymous with, the social assets described above. For example a person's access to lump sums or cheap credit will be enhanced if they save through *seetu*, belong to a Women's Bank group or have extensive networks on which claims can be made.

The range of financial assets or institutions available to different households in the research sites is best described and summarised through the household survey data. Figure 4.4 shows that about 20% of households do not borrow money, but that the remaining 80 use a range of financial institutions or credit sources:

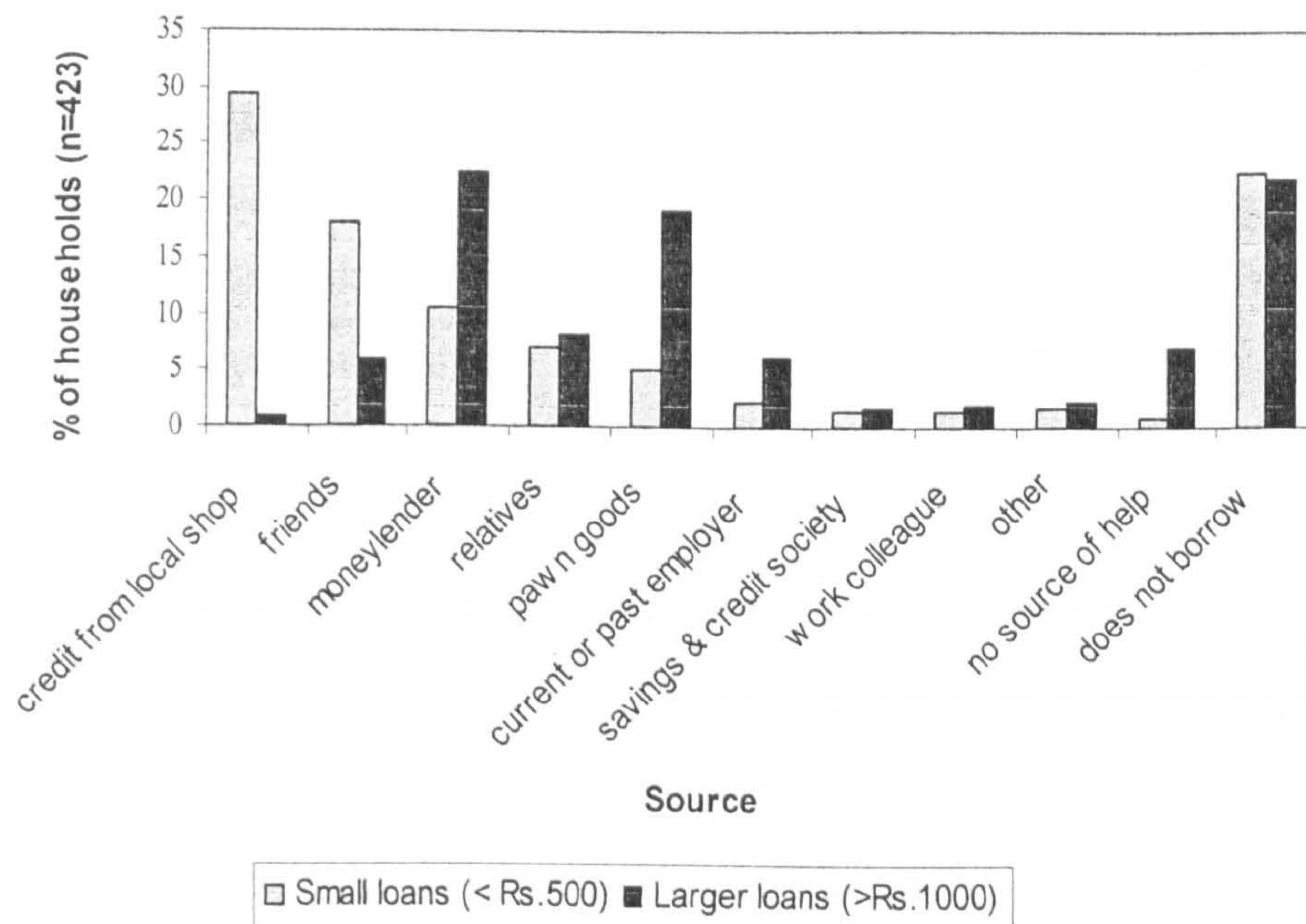
- For small loans of less than Rs.500 buying food on credit from local shops or borrowing from close friends are common strategies, for example when cash shortages arise due to illness costs (loss of a day's wages, extra medical costs). Many households take food and other groceries on credit as a routine activity, and they repay whenever wages arrive (that evening, at the end of the week etc.).
- For larger loans fewer people go to friends and instead resort to moneylenders (who charge 15–20% interest per month), relatives and employers or pawn jewellery. Notably savings and credit societies appear to be used by fewer households in both communities.

In Chapter 7 people's use of these financial assets for coping with illness costs is examined in more detail.

Box 4.4: Financial assets: main features relevant to household ability to cope with illness costs

- For small amounts of credit to purchase daily food needs, many households get credit from local shops or borrow from friends.
- For larger loans many households lack access to formal financial institutions such as banks, and have to resort to moneylenders that charge high interest rates, or pawn jewellery which also incurs interest charges and risks the loss of that asset.
- Savings and credit groups such as the Women's Bank offer loans at low interest, but only a small minority of households currently use this financial institution.

Figure 4.4: Sources of credit among survey households



4.2.4 Building human capital

Since Independence in 1948 the Sri Lankan state has invested in an extensive network of education and health services that are free at the point of delivery. This section focuses on the health services available to the study population in Colombo, and aims to inform understanding of the cost burdens different treatment strategies impose, which is examined in more detail in subsequent chapters. Table 4.1 summarises the diversity of treatment options available to people in Colombo, based on data from secondary sources and the research itself, but this pluralistic medical system is well documented and not examined in detail here (for example see Caldwell et al 1989; Silva et al 1994; Waxler-Morrison 1988).

Table 4.1 Main sources of treatment for Colombo residents

Tradition	Public	Private
Western	<ul style="list-style-type: none"> • Government (tertiary) hospital • Municipal dispensary & clinic 	<ul style="list-style-type: none"> • local shop • pharmacy • doctor/clinic • laboratory • nursing home / hospital
Formal Ayurvedic	<ul style="list-style-type: none"> • ayurvedic hospital • ayurvedic dispensaries 	<ul style="list-style-type: none"> • ayurvedic doctor • ayurvedic dispensaries
Informal Ayurvedic & “Sinhala medicine”		<ul style="list-style-type: none"> • traditional practitioner – <i>Veda mahattaya</i> • traditional specialists (e.g. fracture) • other local healers
Magico-religious		<ul style="list-style-type: none"> • exorcist (<i>adura</i>) • priest • puja, prayer, vow at temple / church • fortune teller / astrologer
Home treatment		<ul style="list-style-type: none"> • traditional herbal remedy (<i>at-behet</i>) • western medicine at home

The two most institutionalised and professionalised systems are the western and formal Ayurvedic, which have been developed through extensive government intervention. Both have government ministries and government service delivery networks (including the National Ayurvedic Hospital in Colombo). However, there has been a continuing trend towards the use of western medicine since the 1940s, particularly in urban centres (Caldwell et al. 1989; Liyanage 1997; Silva et al. 1994).

Western medicine

Colombo is the apex of the government referral system, with 6 of the country's 12 teaching (tertiary) hospitals and specialist facilities. These hospitals provide free health

services, which include a substantial package of inpatient (IP) and outpatient (OP) services. People in Colombo therefore have small distances to travel to the best government services (see Figure 4.1).

The structure of the government health system in Colombo differs from the rest of the country in that there are no lower level district or rural hospitals or health centres. Below the teaching hospitals is a municipal system of preventive and curative health service provision, also free at the point of delivery. These services are managed by the Colombo MC, and although the MC's preventive services are important to urban communities, the curative services are of greatest relevance to the study. There is a *municipal dispensary* in most of the 47 wards of Colombo, staffed by a doctor and pharmacist and offering basic curative care (standard antibiotics, antihistamines, ventolin, vitamins, dressings etc.). A *municipal clinic*, staffed by a nurse and Public Health Midwives (PHMWs) who provide maternal and child health (MCH) services³, is usually also available. Although the municipal system can be a patient's first point of contact with the health system, there is no official referral system and people can visit either the municipal dispensary or a tertiary hospital OP department. Municipal doctors refer patients to one of the hospitals if a condition is serious or they cannot treat the patient.

The excellent geographical access to health services enjoyed by people in both communities is shown in Figure 4.1:

- People in SSP only have to walk for 5 minutes to visit the Kirulapone municipal dispensary or clinic; the Southern Colombo Teaching Hospital (Kalubovila) is only 15 minutes by bus or taxi; the General Children's Hospital (Lady Ridgeway) is only 20–25 minutes travel; and the General (National) Hospital, about 30 minutes. Travel by 3-wheeler taxis is quicker but much more expensive than going by bus, for example a return three wheeler journey from SSP to the General Hospital is about Rs.120-150 (an average daily wage), compared to about Rs.8 by bus.
- People in Obe have good access to municipal services, despite being outside the Colombo MC area: there is a small municipal clinic in Obesekerapura itself (managed by Kotte Municipal Council); the area is so close to the Colombo border

³ PHMWs go out to communities on a weekly basis to register and examine pregnant mothers, offer advice on maternal and child health matters, and encourage women to use the ante-natal services offered at the municipal clinic.

that people have access to the Borella municipal dispensary and clinic; and there is also a municipal dispensary in Rajagiriya. They are also very close to the National Children's Hospital (Lady Ridgeway), Women's Hospital and the National Ayurvedic Hospital.

The private sector in Colombo is large and growing. Throughout the city there are hundreds of private pharmacies, doctors' surgeries, diagnostic laboratories and over 23 nursing homes and hospitals (Russell & Attanayake 1997). These private providers play a significant role in the health system, accounting for about 50% of OP spending in urban areas and serving about 50% of outpatient load (Ernst and Young 1994; PTF 1992). A private doctor's fee for a consultation is about Rs.80–100, and a course of basic antibiotics from a private doctor or pharmacy is about Rs.75. All of a household's daily wage may therefore be spent on a visit to a private doctor and pharmacy.

Most private clinics or hospitals are staffed by government doctors or specialists working privately outside duty hours. This link between public and private sectors is made more complex because doctors often refer patients from their private clinic to their public hospital departments, a process known as *channelling*. This system is a popular one and there are several private 'channelling centres' in Colombo where government specialists work and refer their patients to the nearby government hospital. The patient is willing to pay for this service because it personalises the doctor-patient relationship once they enter hospital and ensures they are seen by the specialist of their choice.

Other traditions of medicine

Other important systems of medicine in Sri Lanka are summarised in Table 4.1. As well as the formal Ayurvedic system, a rich diversity of practices exists which incorporates Ayurvedic and local healing traditions, and magico-religious rituals. Within the Ayurveda tradition people often distinguish between formal, university-trained Ayurvedic practitioners, and traditional practitioners of Sinhala medicine (*Sinhala behet*) known as the *veda mahattaya* (male) or *veda hamini* (female), who are apprentice-trained or said to have acquired their skills through inheritance (*paramparaven*) and training from family members. The *veda* are usually general Ayurvedic practitioners who work with herbal-based remedies, and there are also traditional specialists who deal with fractures, snake-bites and other common ailments

in the community. There are various other locally reputed healers, often working from home, who treat specific illnesses or act as general practitioners, and who may use one or more of the herbal, western and ritual strands of medicine. All these types of practitioner charge for their services.

Religious and ritual-based practices are also common, and can also incur relatively high financial costs. People pay for chants to protect against misfortune and inauspicious illness, to seek a god's protection or healing if illness has struck, or to treat conditions which have arisen from malign influences and demonic possession. Practitioners in these areas include priests and exorcists (*adura*). If a family member or friend is sick people also make vows to gods (*bara wenewa*), promising a material or financial offering in the future if the sick person recovers.

Box 4.5: Health services: main features relevant to household ability to cope with illness costs.

- People have access to the best public health services in Colombo, and these services are 'free' at the point of delivery.
- The private sector is growing rapidly and many people use it for outpatient care. Private doctors' fees are similar to a daily wage and will have serious implications for the budget of many households on that day.
- People face increasing financial costs even if they go public due to creeping privatisation. For example resource shortages in the public sector cause people to finance their own drug costs; and the practice of channelling also increases the financial costs of accessing government services.
- Other medical traditions also incur financial costs.

4.3 Livelihood strategies and vulnerability to sudden shocks

This section reviews how people make a living in the two communities, focusing on how they use their most important asset, labour, to generate income, and the implications of their position in the labour market for income and vulnerability.

4.3.1 Work

In both communities households make a living from a huge diversity of jobs or small businesses – formal and informal, part-time and full-time. Jobs identified by the household survey are summarised in Table 4.2, which also places them into categories designed to differentiate jobs by the incomes they command and their income security.

Figure 4.5 shows the proportion of households with members working in these job categories, distinguishing between the first job households rely on (the largest income source for the household) and second job (the second income source). The proportions were similar for both communities so the graph is for households in both areas (n=423).

Only 2.5% of the sampled households were in the position of having no members who brought in income (the no workers category), either from paid work or other means. The vast majority (97.5%) had at least one member with an income source, either from paid work, business, pensions or savings. More than half the households (61%) had at least two income-earners (Figure 4.5 – which shows that 39% had no second job).

Table 4.2: Making a living: the types of work people do

Types of work identified in the survey	Occupational category	Income and income security
manual labourer (<i>kuli weda; kamkaru</i>); domestic service ^a ; factory labourer / shelf stacker; contract work; painter; cleaner	Manual labourer – daily	<ul style="list-style-type: none"> • Low to medium income • Insecure work & income • Vulnerable to illness: no income if cannot work
driver, waiter, dealer, private security guard, shop assistant, cook, paper and bottle business, data entry, salesman, bus conductor, bar keeper, looks after people in hospital, hospital attendant/assistant, driving instructor, selling lotteries, bakery worker, embassy peon, lift operator, 3 wheel driver	Service – daily	
chickpea seller, string hoppers, fruit and veg, making rice packets, small kade, umbrella repair, betting centre, saloon	Micro-enterprise	
electrician, electrical goods, jeweller, tailor, mechanic, machine operator, welder, cobbler, carpenter, mason, press worker, engineer, plumber	Artisan / semi-skilled labour	<ul style="list-style-type: none"> • Medium pay • More secure work & income • Vulnerable to illness: no income if cannot work
municipal council labourer / peon; harbour authority	Manual labourer – permanent	<ul style="list-style-type: none"> • Low to medium income • Secure work and income • Less vulnerable to losing income due to illness
government cooperative, peon/clerk, auditing and accounts, watcher, postman, railways	Service – permanent	
teacher, nurse, middle ranking government officer, professional singer, ayurvedic doctor, lecturer, actress, lawyer, NGO manager, airline purchasing officer, policeman, photographer	Professional	
factory owner, wholesale, lorry owner, mill	Large business	<ul style="list-style-type: none"> • High and secure income
	work in Middle East	<ul style="list-style-type: none"> • Variable
	Retired / live from savings	<ul style="list-style-type: none"> • Variable
soldier, gambling, renting part of house, scholarship, cattle farming, student living from father's remittances	Other	<ul style="list-style-type: none"> • Variable

^a domestic service, or 'bungalow work' (*bungalawa waeda*), is included in the daily *manual* labourer category because of the physical nature of the work: washing clothes, cleaning, polishing, carrying shopping, walking to market, gardening. Women often stated they were physically tired by the end of the day. Source: Household survey (1998)

The most common jobs on which households rely for their main income source are daily manual labour (28%), daily service jobs (21%) and micro-enterprises (18%). This means 67% of households in the study sites rely on jobs classified as low paid and insecure, and which make the worker and household vulnerable to wage losses caused by incapacitating illness (Table 4.2):

- low paid: on average a male daily worker earns between Rs.100–200 per day; a female worker, usually in domestic service, is likely to earn less (Rs.100–150 per day). Micro-enterprises usually earn similar amounts of money per day, although some businesses can earn more.
- insecure work and income: daily labourers often find themselves without work because they are not needed every day, are out of work when a contract ends, or can easily be dismissed by an employer. Manual labourers, particularly in the building trade, are often prevented from working when it rains. If these people cannot work due to illness they do not get paid, and risk being replaced or losing their job.

A second group of households (8.5%) rely on more skilled labour as a first job (masons, carpenters, electricians). These workers (mostly male) can command higher wages (Rs.300-400) and are in higher demand so work is more reliable. However, they still suffer from job insecurity and vulnerability to sickness because they are employed on an informal and daily basis (Table 4.2).

A third group of households (13.2%) rely on permanent manual or service work, or work classified as professional (e.g. teachers). These workers are usually government employees, and although their monthly salary can be low, and often lower than the earnings of casual labourers, they enjoy permanent contracts and fringe benefits, which include sick leave so that wages are not lost due to illness. Some government positions also include health insurance. For these reasons one 'permanent job' (*steera rasawa*) in the household, meaning a government job, is highly valued in these communities because it is a guarantee of money every month.

Figure 4.5: The use of household labour: first and second income sources in the household

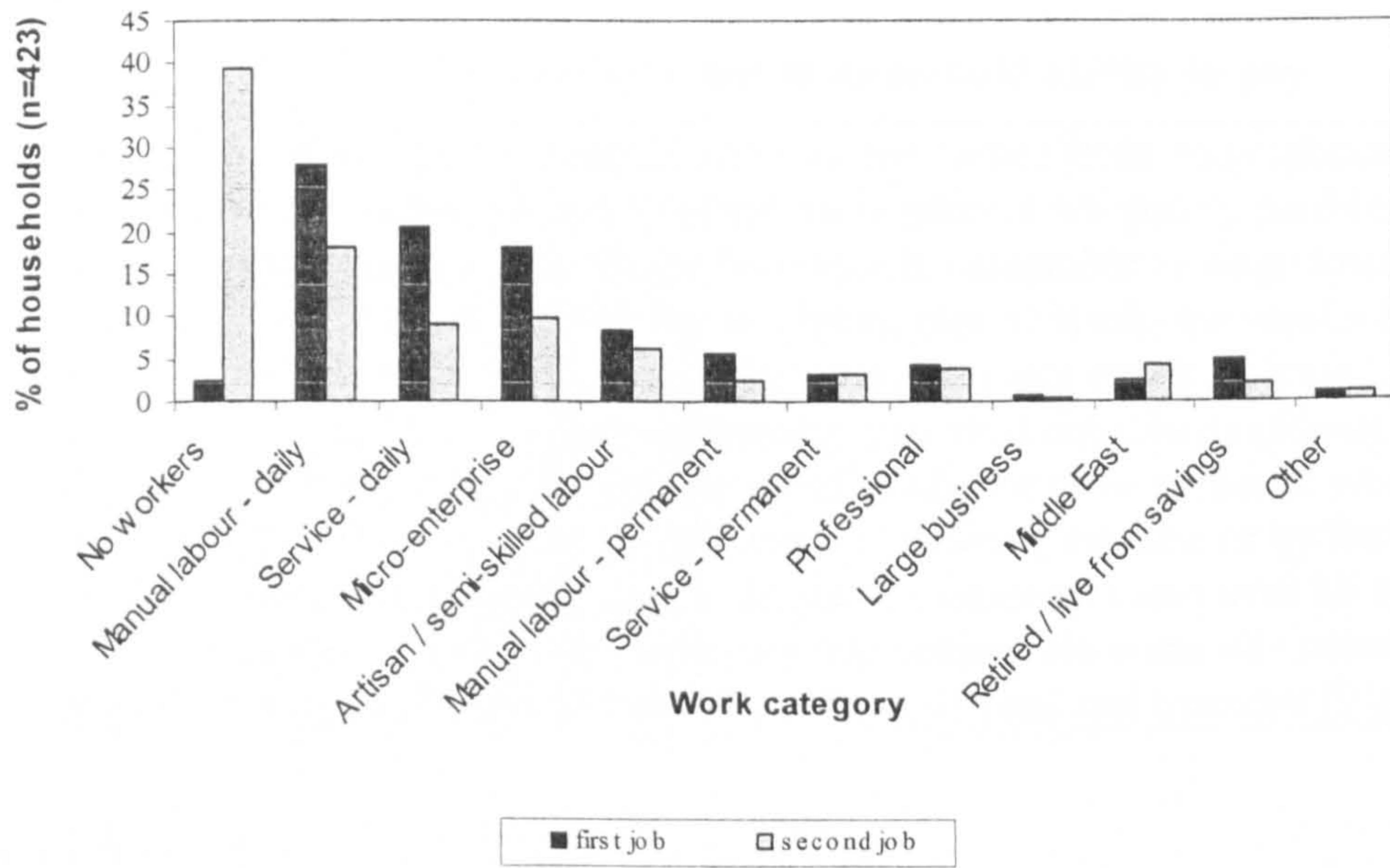


Figure: 4.6 Work by gender

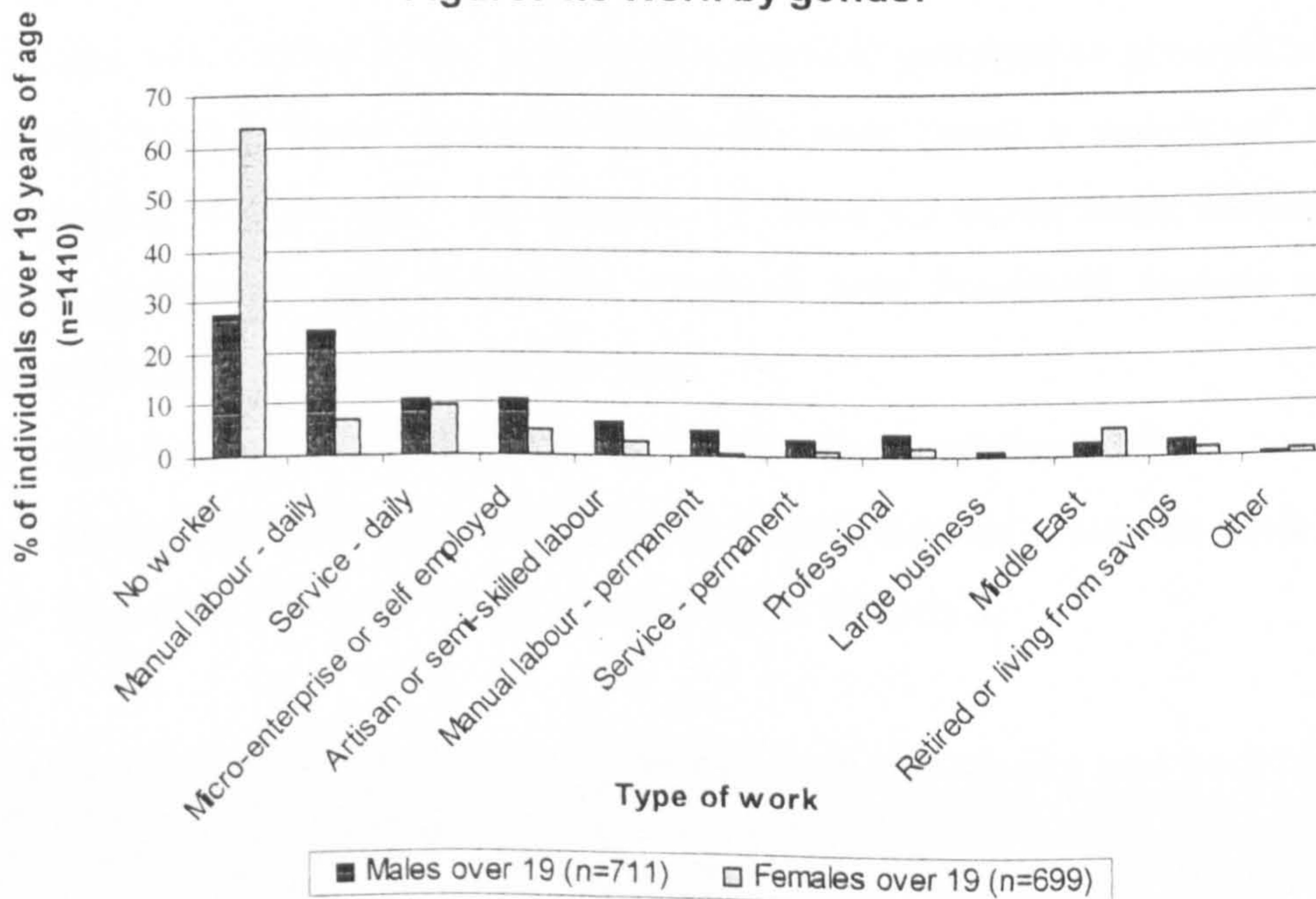


Figure 4.6 illustrates gender divisions within the labour market for households in both communities. Nearly two thirds (64%) of women do not perform any income-earning activities, compared to 27% of men. These figures show that although only a small proportion of households lacked an income earner, unemployment rates among individual male adults over 19 years old were high, and much higher for women.

Box 4.5: Work: main features relevant to household ability to pay

- Most households' (67%) main income source comes from daily labour, service work or micro-enterprise activities which in general are poorly paid (especially for women) and insecure. This makes households vulnerable to wage losses on days the main worker cannot work, due to illness, lack of work, the weather etc.
- About 39% of households are dependent on one wage earner, who is likely to have a low paid job with insecure income paid on a daily basis (Figure 4.5).
- 61% of households have diversified livelihoods and have at least 2 workers (Figure 4.5), either by female participation in labour markets or by their children leaving school and entering the labour market (in most cases over 16 years old). This makes these households relatively less vulnerable when one breadwinner falls ill, but these second jobs are also often low paid and insecure (Figure 4.5).

4.3.2 Income

Averages

The survey measured household income through expenditure data. Total household income was divided by the number of household members to generate a household per capita income figure (children under ten were given a weight of less than one, depending on their age – see Chapter 3). Table 4.3 shows mean household income in each community and overall, in terms of total household income and per capita household income. The data show that:

- Obe has marginally higher household income levels than SSP;
- average per capita income levels are higher than the minimum basic needs poverty line of Rs.1354 per month, constructed in Chapter 3.

Table 4.3: Average household income in each community and both communities

	SSP (n=207)	Obe ^a (n=215)	Both ^a (n=422)
Mean HH income per month (Rs.) (median)	9263 (8465)	9622 (8697)	9446 (8571)
Mean per capita HH income per month (Rs.) (median)	2080 (1852)	2193 (1891)	2137 (1880)

^a one extreme outlier removed

Source: Household survey (1998)

Distribution

Figure 4.7 gives a broad view of income distribution in the two communities, and shows that most households fall within a broad income group of Rs.1,000–2,000 per capita. However, the figure also reveals a great range of income levels, and although both communities are considered ‘poor’ by government authorities, they are heterogeneous in terms of household income and command over commodities.

The per capita income distribution can also be represented by quartile groups (Table 4.4). For example the poorest households in both communities have per capita incomes of Rs.1352 per month or less (the lower quartile). If the households from each community are fitted into these overall quartile groups, SSP has disproportionately more households that fall into the poorest group (26.1%) and fewer households in the upper quartile group (19.8%). In contrast Obe has a disproportionately high number of households that fall into the upper quartile (30.1%).

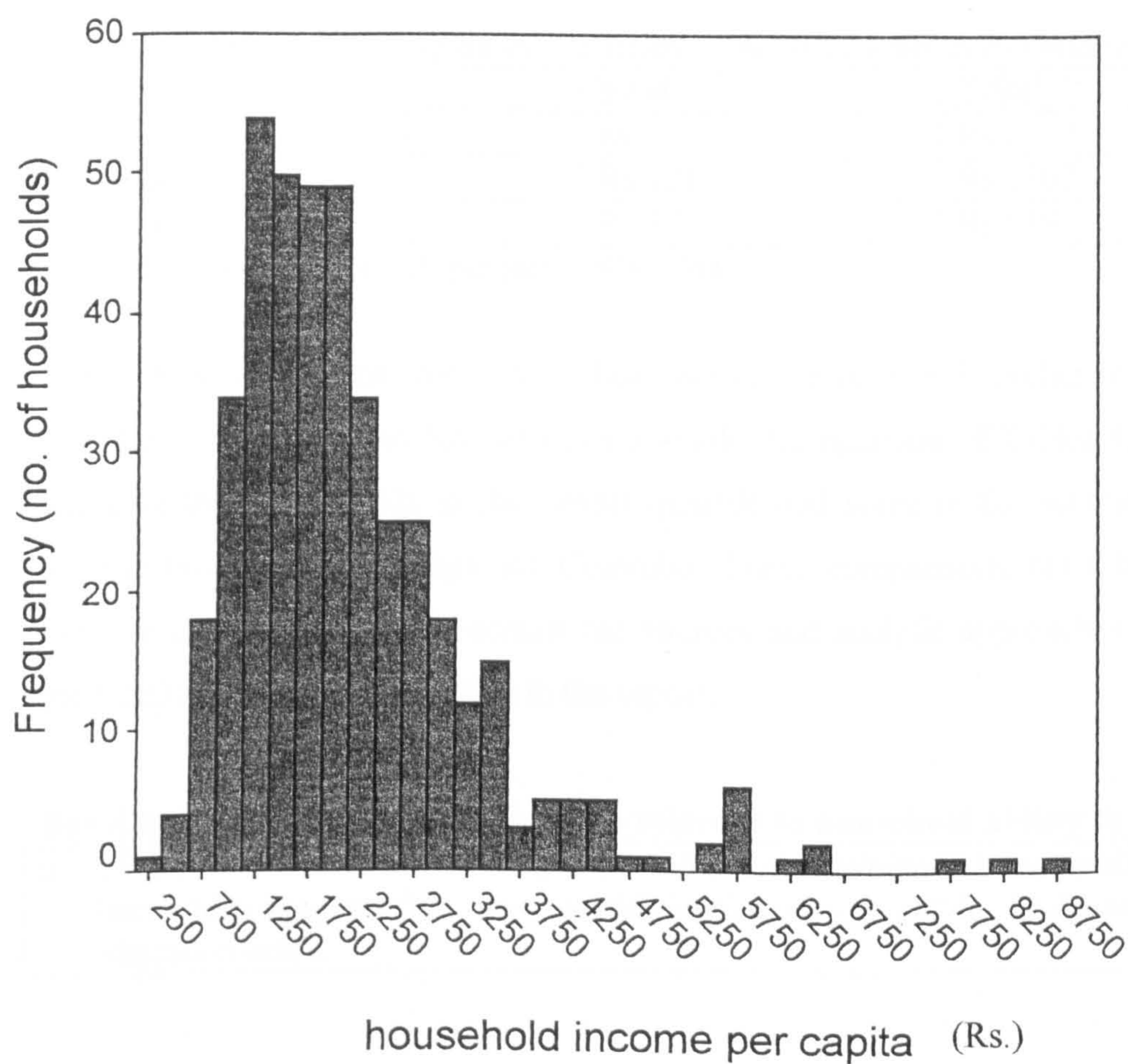
Table 4.4: Income quartile groups

Income per capita quartile groups for both communities		% of households that fit into these groups in each community	
	Monthly income per capita ranges	SSP	Obe
Lower quartile	Rs. 0–1352	26.1	23.6
2	Rs. 1353–1880	25.6	24.5
3	Rs. 1881–2609	28.5	21.8
Upper quartile	Rs. 2610+	19.8	30.1

Source: Household survey (1998)

Table 4.4 shows that the lowest quartile group – or 25% of households in both communities – lie below the minimum basic needs poverty line of Rs.1354 per month. These figures suggest that 25% of households do not have enough cash to meet minimum basic needs, and no extra cash for the additional basic needs of health and education. However households in the second quartile group (Rs.1352-1879) and upwards are likely to have additional cash available for health and education costs after minimum basic needs have been met. The 25% poverty figure (a ‘headcount index’) is comparable to the most recent (but still old) World Bank analysis, which estimated that 28% of the urban population in Sri Lanka were below a poverty line set in 1990/1 (World Bank 1995).

Figure 4.7: Distribution of household per capita income in SSP and Obe(n=422)



Comparisons with the rest of Colombo and Sri Lanka

It is difficult to compare the above income data with income levels of the wider Colombo or Sri Lankan populations, because no comparable household survey figures are available. The closest comparison possible is with figures from the 1998 National Human Development Report for Sri Lanka (UNDP 1998), which provides 1994 GDP per capita data in Rupees for each region. The average annual GDP growth rate quoted in the report was used to estimate a figure for 1998 (Table 4.6).

Table 4.5: Income per capita in the study sites compared to the wider population

Area	1994	1998 ^a
SSP and Obe	na	Rs.2137
Colombo	Rs.1212	Rs.1502
Sri Lanka	Rs.742	Rs.919

^a assumes a growth rate of 5.5% per year (UNDP 1998)

These data suggest that mean household per capita income is higher in the two study sites than in Colombo or Sri Lanka as a whole. Comparison of Tables 4.4 and 4.5 also indicates that households in the lowest quartile and some in the second quartile have income levels below average for Colombo. These comparisons must be viewed with extreme caution, however, because the sources and analytic approaches that generated the UNDP data are not specified in the report.

Box 4.6: Income levels: main features relevant to household ability to pay.

- 25% of households in the study areas fall below a minimum basic needs poverty line, which suggests they have no additional money to pay for health and education costs.

4.4 The case study households

4.4.1 Income and health

As noted in Chapter 3, 16 primary case study households were selected for analysis in subsequent chapters. They represent the mix of household types originally intended in the selection procedure: poor and better off; 'healthy' and 'sickly'. This mix is shown when the case study households are located in the income profile of the community described in the previous section, and when they are classified as households with illness or without illness (Table 4.6). In addition, these households cover a mix of

household sizes (from 2 to 9 members) and structures (from standard nuclear families to complex 3 generation households). Appendix B1 provides more detailed information about each household's size and structure.

Table 4.6: Comparison of case study households with the community income profile^a

Income profile from HH survey >>	Income quartile groups			
	lower quartile	2	3	upper quartile
Income range (Rs. per month)	0-1352	1353-1880	1881-2609	2610+
Households with illness	Nimal Jayasinghe Valli	Nishanthi Sumithra	Raja Rani	Dilani
Households without illness	Geetha Kumudu Selvaraja	Amali	Pushpa Mayori	Mary Renuka

Source: Household survey (1998)

^a Case study households have been given pseudonyms for confidentiality

Table 4.6 shows there are 9 case study households that fall in the lower half of the overall community income distribution, and 7 in the upper half. A disproportionate number were selected from the poorest quartile (6 out of 16 households) because it was assumed the poorest would face more acute ATP problems and reveal richer information about how people cope with payment difficulties.

Households classified as having illness had the following serious complaints:

- Long term illness that had caused the main breadwinner to give up work: Nimal had a very serious condition of the bone marrow (aplastic anaemia) that required regular blood transfusions; Jayasinghe had undergone operations on intestinal tumors.
- Chronic conditions requiring regular treatment: Dilani's husband had diabetes and her mother high blood pressure; Nishanthi had diabetes; Rani's mother had diabetes and her daughter had asthma.
- Acute illness that had caused temporary incapacitation and the person was still recovering: Nishanthi's husband had had a kidney operation and was still resting when research started.
- Chronic illness that caused regular incapacitation and loss of work: Valli had arthritis and often missed work; Raja and his wife had asthma.
- Accidents that had incurred heavy financial costs in the past, that continued to affect the household budget when research started: Sumithra's household was still paying off debts caused by borrowing to pay for treatment.

Details of these illnesses and how households manage them are presented in subsequent chapters.

4.4.2 Households assets, vulnerability and robustness

Using the asset framework in Chapter 2, Table 4.7 summarises household assets and locates them on a very basic vulnerability–robustness spectrum, based on their asset portfolios when research started in 1998. The criteria used in this initial categorisation were the more tangible and obvious assets that could be recorded when research started. The resulting categories in Table 4.7 allow the main characteristics of each household type to be quickly reviewed. The Table also provides a rough baseline for Chapter 6 which analyses how case study household livelihoods changed over the eight months of research (for example see Table 6.5 in Chapter 6). A brief summary of each vulnerability category, with descriptions of specific households, is set out below. Appendix B provides a description of other socio-economic characteristics for each household.

Highly vulnerable households

Three of the 4 households in this group were already on a path of livelihood decline when research started, manifested in declining income levels and asset depletion. The reasons for this decline are complex, but for two of the households illness had been a key factor.

Jayasinghe: Jayasinghe had undergone two operations on his lower intestine to remove tumors in 1995 and 1997. Following the second operation he was unable to return to work (manual labour), and because he had been the main breadwinner the household had to face the permanent loss of a worker and a reduction in income. When research started in 1998 the household was reliant on his sister's job (domestic service) and his elderly mother's part-time job (domestic service) (see Appendix B, and Box 6.1 in Chapter 6).

Table 4.7: Location of case study households on the vulnerability-robustness spectrum

	Highly vulnerable	Vulnerable	Robust	Highly robust
	Selvaraja Sumithra Valli Jayasinghe	Nishanthi Renuka Geetha Nimal	Pushpa Mayori Amali Kumudu Raja	Dilani Rani Mary
Human capital, labour and income security	<ul style="list-style-type: none"> • 1 daily worker & high dependency ratios • some have low wages • insecure work & income 	<ul style="list-style-type: none"> • most have 1 daily worker & high dependency ratios • no workers in Nimal's HH • some have low wages 	<ul style="list-style-type: none"> • most have 2 or more workers & low dependency ratios • more skilled labour & higher wages 	<ul style="list-style-type: none"> • at least 2 workers & low dependency ratios • and / or • high and secure income
Physical capital	<ul style="list-style-type: none"> • wooden housing or • poorly maintained brick housing with holes in roof etc. • no water or electricity • a few items of old furniture 	<ul style="list-style-type: none"> • with the exception of Nimal these HHs have: • brick housing with tiled roof • water and electricity • basic and old furniture 	<ul style="list-style-type: none"> • some have brick house and tiled roof • some have water and electricity • some have productive assets • basic and old furniture • some have modern electrical goods 	<ul style="list-style-type: none"> • brick house and tiled roof • water and electricity • some have productive assets • good furniture and modern electrical goods
Social capital ^a				
Financial capital	<ul style="list-style-type: none"> • depleted all or most of their stores, often due to illness 	<ul style="list-style-type: none"> • mixed, but some depleted all or most of their stores • some doing seetu • Geetha has savings 	<ul style="list-style-type: none"> • stores of jewellery • savings • most doing seetu 	<ul style="list-style-type: none"> • large store of jewellery • savings • doing seetu
Debts	<ul style="list-style-type: none"> • some low, but some high due to stress borrowing 	<ul style="list-style-type: none"> • in general low debts 	<ul style="list-style-type: none"> • low and well managed debts 	<ul style="list-style-type: none"> • high but due to investment

^a When research started there was limited data on the social asset endowments of these households. This data was collected over the 8 months of research.

Sumithra: Due to a sequence of serious accidents that incurred high financial costs of illness (partly because they sought private western and ayurvedic treatment), Sumithra's household had pawned all of its stores of jewellery and other valuable items (e.g. saris), handed over 75% of their land plot to a relative in return for money, and was heavily in debt (see Box 6.2, Chapter 6). Fortunately her husband, the only worker in a household of 9 people, had a secure job at a bank (Appendix B), which meant most of the debt was low interest. However, monthly debt repayments had still cut his monthly salary to below the minimum basic needs poverty line and the household had no assets remaining.

Valli: Valli's household was also on a path of livelihood decline and increasing vulnerability, and while the causes were complex three key factors were illness, legal costs and heavy spending on alcohol by her husband (see Box 6.3, Chapter 6). Due to her arthritis Valli had left a well paid and permanent cleaning job at an international NGO office. At the start of the research she did domestic service work but the pay was low (Rs.75 per day) and she frequently could not go to work due to her arthritis. Her husband was also a daily labourer but his work was insecure and he spent a high proportion of his income on alcohol and cigarettes. When the research started the household had depleted its stores of jewellery, its debts were accumulating, and the threat of losing their house hung over them.

Selvaraja: This household was not on a path of livelihood decline but was highly vulnerable at the point research started because of its dependence on the husband's daily labouring job, which was insecure and did not provide enough income to meet minimum basic needs (see Chapter 7).

Vulnerable households

With the exception of Nimal this group had not been on a path of livelihood decline when the research started, but they remained vulnerable for a variety of reasons:

Nimal: As a direct result of illness Nimal's household (just him and his wife) had undergone the most extreme decline from a position of relative wealth to extreme poverty at the start of research (see Box 6.1, Chapter 6). Nimal could not work and they had sold all their assets. They were obtaining enough money to eat from their relatives.

Due to the strength of his social networks Nimal was not allocated to the highly vulnerable group (See Chapter 9).

Geetha: Geetha spent two periods working in Taiwan and with the money they built and furnished their house. She also saved Rs.25,000. However, after her return they had been dependent on the earnings of her husband, who had a low paid (Rs.100 per day) and insecure job as a kitchen helper at a restaurant, and they had started to deplete these savings.

Renuka: This household earned one of the highest per capita incomes (Appendix B) from the husband's vegetable wholesale business, but falls in the vulnerable category because the husband spent most of this money on heroin each day. This left Renuka with about Rs.200 per day to feed the family (4 children) and manage the household, and over the years she pawned all her jewellery.

Nishanthi: This household was the least vulnerable in the group because one of Nishanthi's sons had a regular income from a job with a private sector finance company and Nishanthi still had most of her jewellery. However, the household was classified as vulnerable for several reasons: the husband had been forced to stop work due to a kidney operation and the prognosis was unclear; Nishanthi had diabetes; and two of her sons had a heroin problem.

Robust households

In general these households' livelihoods were developing through saving and small investments, for example in house improvements and electrical goods. With the exception of Amali they had higher incomes than the vulnerable households (Appendix B) because they had more workers, diverse income sources and more secure work. Two examples in this group are:

Raja: Despite the husband and wife suffering from asthma, which frequently caused one of them to miss a day's work, the household's robustness stems from the fact that they have 3 workers and a low dependency ratio.

Mayori: This household was robust because it had three workers and even more income streams, because Mayori (wife) is a teacher at an NGO pre-school but also earns money from private tuition and sewing.

Highly robust households

These households had multiple income streams and / or well paid workers with secure jobs, and were on paths of livelihood development through high levels of investment (see Appendix B).

4.5 Summary and conclusion

This chapter has described the communities in which the research took place, and the 16 case study households that are the foci of analysis in Chapters 5–9, in terms of livelihood assets and strategies. In doing so it has identified features of:

- *livelihood context* that influence household asset portfolios, cost burdens, vulnerability and ultimately ATP for health care (e.g. government settlement upgrading policy, the nature of social interaction in the community, health policy);
- *livelihood assets and strategies* that influence work, income levels and security, and access to additional resources when financial contingencies arise (e.g. human capital, social assets).

These features of livelihood context, assets and strategies fall into two broad categories: those that are likely to increase household vulnerability when faced with illness, and those likely to decrease vulnerability or make households more robust.

Policy and community contexts that increase household financial vulnerability when faced with illness include: government failures to improve the physical environment, water and sanitation and housing in some areas; weak social networks and lack of access to cheap credit for many households that consequently resort to moneylenders who charge high interest; health service weaknesses that push people to the private sector or increase the financial costs of seeking public treatment; the prevalence of daily work which generates low and insecure income; and finally an increasing drug problem among males in the two communities (especially alcohol and heroin), which, among the

many social problems it creates, drains household income and hinders savings and investment.

Policy and community-based efforts relevant to increasing household robustness when faced with illness include: of particular importance is government health service provision for a wide range of acute and chronic illnesses free at the point of delivery; government interventions to improve the physical environment that provided free land and cheap housing; traditional rotating savings groups (RSGs) that enable households to build up savings; innovative policy initiatives to develop CBOs that provide cheap financial services for the poor (savings and credit societies); and subsequent NGO and community-based efforts to extend and strengthen these credit societies.

These variables are analysed in more detail in subsequent chapters. The next chapter provides an overview of treatment strategies, illness costs and cost management strategies in the two communities using survey data; Chapter 7 analyses how material assets (income, income security, financial stores) mediate case study households' ability to manage illness costs or ATP; Chapter 8 examines how the health system mediates illness costs and ATP; and Chapter 9 examines how social assets (social networks, rotating savings groups) mediate ATP.

In Chapter 10 the aforementioned variables influencing vulnerability are revisited (particularly in section 10.2), because they are components of livelihood likely to mediate household ATP that policy-makers can build on.

Chapter 5: Illness patterns, cost burdens and coping strategies: an overview

5.1 Introduction

This chapter presents a descriptive overview of the main variables relevant to ATP that were set out in the conceptual framework in Figure 1.2, using data primarily from the household survey. The chapter answers four main questions:

- what were the main patterns of illness?
- what types of treatment strategy did households adopt?
- what were the financial (direct) and wage (indirect) costs of illness, and what burden did these costs impose on household budgets?
- how did households cope with or manage these costs?

The chapter therefore addresses objectives 1 and 2, measuring the household costs of illness and the financial burden these impose on household budgets, and exploring the strategies adopted by households to cope with these costs. Community-wide data from the household survey are presented at this stage of the thesis because they provide a broad profile of illness, treatment seeking behaviour, illness costs and coping in the two communities. This analysis provides the context and foundation for more in-depth analysis of case study households in Chapters 6–9 (see the summary of this chapter).

Although survey data are primarily used to answer these questions, case study data are also drawn on to enrich the analysis, in particular by adding a longitudinal perspective to illness and cost patterns over an eight month period.

5.2 The household survey data

The household survey, carried out in April and May 1998, covered 423 households (2197 individuals) and collected data using a systematic sampling strategy (1 in 3 households in SSP and 1 in 7 in Obe). Overall five households could not be contacted after two visits, and only two refused to be interviewed, in which case the adjoining household was selected for interview.

The main unit of analysis for illness cost data is the household because (a) illness cost burdens fall upon a household's budget; (b) a household perspective is necessary to capture a combination of costs when several members suffer illness, and; (c) it incorporates costs incurred by healthy members who care for the sick.

Analysis of cost data distinguishes between financial (direct) costs and wage (indirect) costs, and combines these to produce a total illness cost figure. Financial illness costs are defined as *all expenditure linked with seeking care* (including transport, puja or prayer), and wage costs as *wages lost as a result of days off paid work due to illness*. As explained in Chapter 3, *unpaid* activity days lost due to illness (household work or school days missed) can impose considerable burdens on households or have serious implications for child care and education, but these are not included in indirect cost calculations because they are not directly relevant to ability to pay.

Financial, wage and total illness costs are translated into corresponding cost burden figures:

- financial illness cost burden, defined as *expenditure linked with seeking care as a percentage of household income*;
- wage cost burden, defined as *lost income due to illness as a percentage of normal household income*;
- total cost burden, which is the sum of these two burdens.

Cost and cost burden figures are expressed as a figure per month.

Both mean and median cost and cost burden figures are used as measures of central tendency. Mean costs are always higher than the median because cost distributions are positively skewed and extreme values push the mean upwards. Because the mean is inflated by extreme values the median cost figure is always closer to the experience of a larger proportion of households and a better measure of central tendency.

Section 5.6.3 compares cost burden data across four household income groups, derived from household income per capita quartiles. The survey measured household income through expenditure data, and divided this by the number of household members (weighted for age) to generate a household per capita income figure (see Chapter 3).

While presentation of illness cost and cost burden data obviously entails quantitative analysis, a descriptive rather than inferential approach is adopted because the thesis is not testing hypotheses related to illness cost burdens. Instead the chapter aims to describe the main cost burden patterns in the community that are relevant to subsequent analysis of factors influencing ability to pay.

5.3 Illness patterns

5.3.1 Illness patterns reported in the household survey

The number of individuals reporting illness in the two communities is set out in Table 5.1. A higher proportion of people reported chronic conditions¹ (15%) than acute illness in the previous 2 weeks (12%), and far fewer people had been hospitalised in the previous year (6.7%).

For each category of illness more individuals reported illness in SSP than Obe, particularly for chronic conditions. A simple chi square test showed the difference in chronic illness prevalence between SSP and Obe was statistically significant at a 99% confidence limit (with only a 0.3% chance that the difference was due to random factors). In contrast the higher levels of acute illness and hospitalisation in SSP were not statistically significant, even at a 95% confidence level, although with respect to acute illness there was only a 7.7% chance that the differences were random.

¹ A reported illness was defined as chronic: (a) if the illness was reported as a 'chronic' condition (*nidangat rogiya*) by the respondent; (b) if the reported illness is a clinically defined chronic condition (diabetes, arthritis, asthma), or; (c) if the reported illness had persisted for over 1 month. Acute conditions were sudden or temporary conditions.

Table 5.1: Number and proportion of individuals reporting illness

	Individuals reporting:			Total individuals reporting illness	Total sample
	a chronic condition	an acute illness in last 2 weeks	Hospital admission in last year		
Area	no. (%)	no. (%)	no. (%)	no. (%)	no. (%)
SSP	194 (17.9)	145 (13.4)	78 (7.2)	335 (30.8)	1086 (100.0)
Obe	148 (13.3)	121 (10.9)	70 (6.3)	278 (25.0)	1111 (100.0)
Total	342 ^a (15.6)	266 ^b (12.1)	148 ^c (6.7)	613 ^d (27.9)	2197 (100.0)

^a out of 342 individuals, 33 had a second chronic condition.

^b one person had two acute episodes in the recall period, making 267 acute episodes in total.

^c of the 148 individuals hospitalised 23 had been admitted a second time, and then 6 of these people had been admitted for a third time. In total there were 177 admissions for 148 individuals.

^d the total is less than the sum of the three categories because some individuals suffered from a combination of these three.

Source: Household survey (March/April 1998).

Significantly higher levels of reported chronic illness in SSP were related to higher levels of reported respiratory conditions in that community (79 people or 7.3% of the sample) compared to Obe (44 or 4.0%) (see Table C1 in Appendix C). Respiratory conditions were reported as *hathiya* (asthma causing shortness of breath, wheezing, cough and phlegm) or less frequently as asthma itself (*aduma*).

Widespread reporting of *hathiya* in SSP confirmed earlier findings from community-based focus group discussions and health problem ranking exercises conducted during phase 1 of the research. In these activities respondents considered asthma and related breathing problems to be the most common illness problem in SSP, but not in Obe. In key informant interviews during phase 1 of the research municipal government health staff in the SSP area also said respiratory problems were very common, and were caused by the damp conditions associated with proximity to the canal and poor drainage, with many people sleeping on damp floors or beds.

In both communities respiratory problems were the most common chronic condition. High blood pressure, diabetes and arthritic or rheumatic problems were also relatively common (see Table A2.1 in Appendix 2). The most commonly reported acute illness in both communities was “fever” (*una*)², often in conjunction with other problems such as

² The survey was conducted at a time of year (rainy season) when fever is more prevalent.

a cough, cold, flu, or vomiting. Colds, coughs and flu (with no fever) were other common ailments (see Table C2 in Appendix C).

Rates of reported illness did not differ significantly between males and females, but did with age. Hospitalisation and prevalence of chronic conditions were higher among older sections of the population (Figure 5.1), and notably 57% of people aged 60 or over reported a chronic condition. Acute illness and accidents were most prevalent among the youngest age group: over 25% of children between 0 and 9 years old had been ill within the two week recall period compared to less than 10% for most other age groups (Figure 5.1). The youngest age group, particularly under 5 year olds, suffered 41.2% of the colds and coughs reported, 38.2% of flu cases and most notably 51.0% of reported fever cases (53 out of 104).

Illness was not spread evenly across households, and a minority of households suffered high concentrations of illness. With respect to chronic illness (Table 5.2) 190 out of 423 households (45%) had no members with a chronic or long term illness, but 34% had one chronically ill member and 21% (88 households) had to cope with two or more members with chronic illness. The burden of chronic illness (in terms of individuals per household) also fell disproportionately on the poorest group of households (quartile 1 – see Table 5.2), compared to the highest income group:

- 65% of the poorest households had at least 1 member with a chronic illness, compared to 50% of the highest income quartile group;
- 29% of households in the poorest group (31 households) had at least two members with a chronic illness, compared to only 17% in the highest income quartile group (18 households).

However, a chi square test showed that the different distribution of chronic illness across poor households compared to the better off household group was not statistically significant.

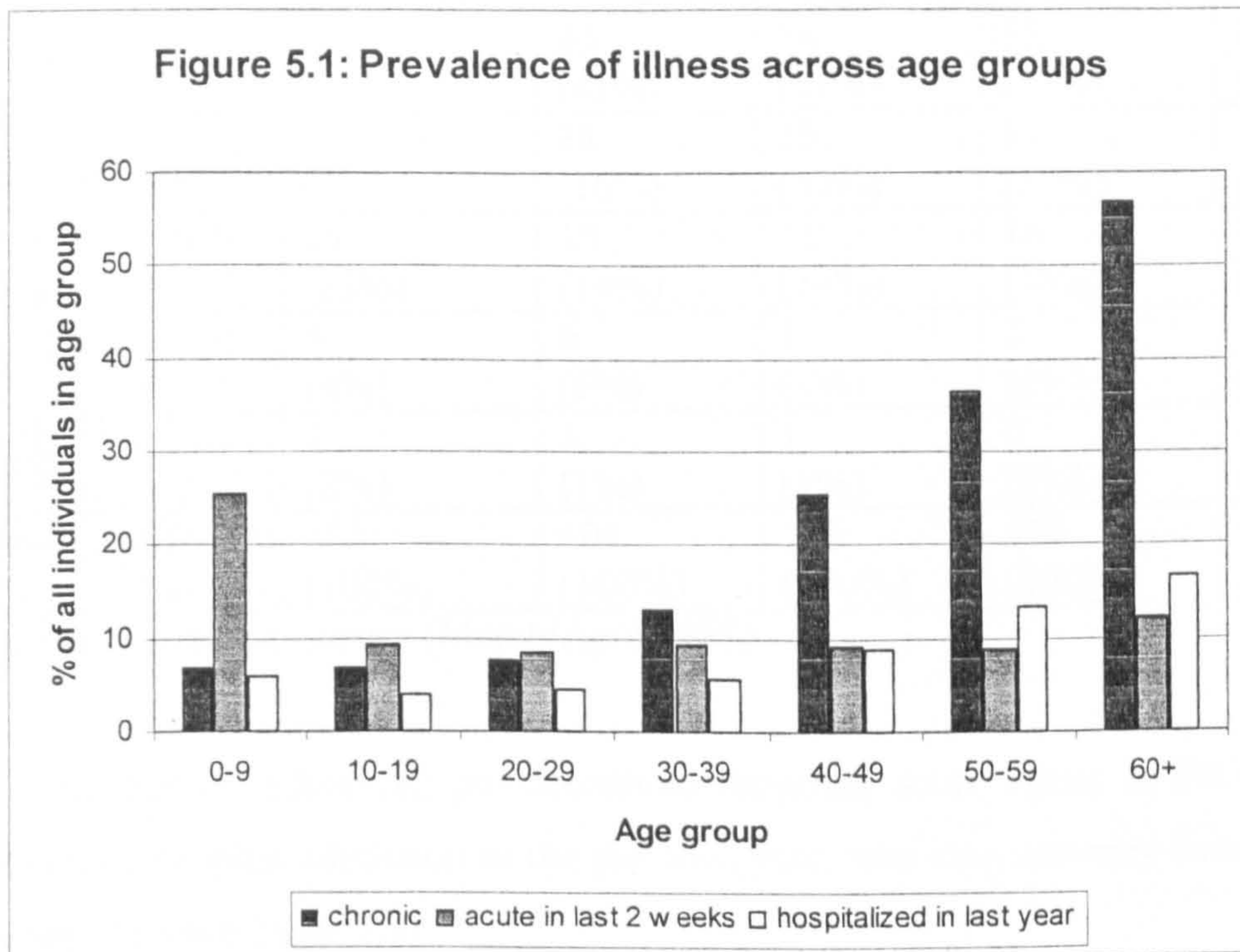


Table 5.2: Distribution of chronic illness across households

		Household income per capita quartile group				All households
		1 (lowest)	2	3	4 (highest)	
no. of individuals per HH with a chronic illness	none	37 (35%)	46 (43%)	54 (51%)	53 (50%)	190 (45%)
	1	37 (35%)	38 (36%)	35 (33%)	35 (33%)	145 (34%)
	2	25 (23%)	15 (14%)	15 (14%)	16 (15%)	71 (17%)
	3	4 (4%)	6 (6%)	1 (1%)	2 (2%)	13 (3%)
	4	2 (2%)	1 (1%)	1 (1%)	0 (0%)	4 (1%)
Total households		105 (100%)	106 (100%)	106 (100%)	106 (100%)	423 (100%)

Source: Household survey (March/April 1988)

The number of individuals per household reporting acute illness in the previous two weeks, or hospital admission in the previous year, was also unevenly distributed across households (see Table 5.3):

Table 5.3: Distribution of acute illness and hospitalisation across 423 households

		acute illness in last 2 weeks	hospitalised in last year
no. of individuals per HH	none	213 (50%)	288 (68%)
	1	164 (39%)	123 (29%)
	2	38 (9%)	11 (2.5%)
	3	6 (1.5%)	1 (0.5%)
	4	2 (0.5%)	0 (0%)
Total households		423 (100%)	423 (100%)

Source: Household survey (March/April 1998)

- Just over 50% of households experienced no acute illness, 39% had one ill member, and just over 11% of households had to manage two or more acutely ill individuals. In contrast to chronic conditions, however, acute conditions were spread relatively evenly across income quartile groups so the breakdown by quartile is not included in Table 5.3.
- Most households (68%) did not experience a hospital admission in the previous year, but 29% had one member hospitalised and a small minority (3%) had two or more members hospitalised (Table 5.3). As with acute illness,

people admitted to hospital were spread relatively evenly across income groups so these data are not included in Table 5.3.

Households also experienced combinations of chronic illness, acute illness, and hospitalisation. Table 5.4 cross-tabulates the number of individuals per household with a chronic and an acute illness, and the shaded area shows households that experienced both types of illness. In the shaded area 115 households (27%) had at least one chronically ill member and experienced at least one acute illness. The two cells containing most of these households show that:

- 57 households (13%) had one chronically ill member and suffered an acute illness;
 - 31 households (7.3%) had two chronically ill members and suffered an acute illness.
- Only 95 households (23%) were free from both chronic and acute illness.

A minority of households suffered even higher illness burdens once hospitalisation is included. For example out of the 57 households with one chronic illness and one acute illness, 18 also experienced at least one hospital admission. And out of the 31 households that had 2 chronically ill members and one acute illness, 16 households also experienced at least one hospital admission. Two case studies from the survey presented in Boxes 5.1 and 5.2 provide examples of households that experienced high levels of illness.

Table 5.4: Distribution of chronic and acute illness across households

		no. of individuals per HH with an acute illness in the previous 2 weeks					Total
		none	1	2	3	4	
no. of individuals per HH with a chronic illness	none	95 (23%)	68 (16%)	23 (5%)	3 (1%)	1 (*%)	190 (45%)
	1	77 (18%)	57 (14%)	7 (2%)	3 (1%)	1 (*%)	145 (34%)
	2	34 (8%)	31 (7%)	6 (2%)			71 (17%)
	3	5 (1%)	5 (1%)	3 (1%)			13 (3%)
	4	2 (*%)		2 (*%)			4 (1%)
Total households		213 (50%)	163 (39%)	39 (9%)	6 (2%)	2 (*%)	423 (100%)

* = less than 1%

Source: household survey (March/April 1988)

Case study box 5.1: Jiva

Jiva and his family live on the poorest edge of SSP (beyond section E), in one of 20 small wooden houses built illegally on unused, private land beyond the official border of the government development site. The household is large with nine members: Jiva (aged 30) is married with 3 young daughters (aged 6, 4 and 2); his mother, father, younger sister and her daughter (aged 5) also live in the house. The household's income per capita is low and falls in the lowest income quartile. There are two workers in the household: during the day Jiva does labouring jobs and in the evenings he sells chick peas as snacks; and his mother works as a domestic servant.

The household reported 6 illnesses:

- * 2 chronic conditions: the two youngest daughters have *hathiya* or a tight chest and they go regularly to an asthma clinic at the government children's hospital to get ventolin tablets.
- * 2 acute conditions: in the last 2 weeks one of the daughters had a fever, which was treated with *koththamalli* (boiled coriander) and paracetamol, and the other had a cold.
- * 2 hospital admissions: the daughter with a cold had an asthma attack and in an emergency at night they had to rush to the government children's hospital where she was given 'steam' (inhaler) and then admitted for a few days. Earlier in the year Jiva was admitted to the government hospital for 2 days due to an accident (knee injury).

This high level of illness incurred a high total illness cost burden (37%). See this chapter's introduction for a definition of total illness cost burden, and Box. 5.3 for details of Jiva's cost burdens.

Case study box 5.2: Maheshwari

Maheshwari's household lives on the poor side of Obe in the Arunodaya Road area, and has six members: Maheshwari (aged 35), her husband and two young sons (aged 3 and 1), and her mother and father. Her husband does not have work at the moment and the household is dependent on her father's small enterprise collecting used paper and bottles for recycling. Its income per capita is relatively low and the household falls in the second lowest income per capita quartile group. The household reported 5 illnesses:

- * 2 chronic conditions: Maheshwari's mother and her husband suffer from asthma, which in her husband's condition causes the constant problem of '*sema*' – a build up of phlegm in the lungs which causes him to cough a lot.
- * 2 acute conditions needing OP care: both her young sons had fever in the last 2 weeks, and she took them to see a private doctor who they consider to be their family doctor, where they got medicine and advice.
- * The youngest son was admitted to the government children's hospital for 10 days, several months ago, because he had very bad diarrhea and became seriously ill and dehydrated.

Despite reporting a high level of illness, the household incurred a low cost burden of 0.75% (see Box 5.5).

5.3.2 Illness patterns among the case study households

Reported illness in the 16 case study households was recorded every two weeks over an 8 month period. Three general findings about illness experience from the case study households reflected findings from the household survey data:

- households with elderly members experienced more chronic illness;
- households with young children experienced more acute illness;
- illness was not spread evenly across households.

In addition, the detailed and longitudinal nature of the case study data identified a feature of illness experience which the household survey could not pick up:

- illness was not distributed evenly over time, and several households, particularly those with elderly members and young children, faced the problem of concurrent illness among members.

Chronic or long term illness affected older people and was concentrated in a few households. Chronic illness patterns are summarized in Table 5.5. Eighteen of the 19 individuals reporting a chronic or long term illness were adults and 11 were over 40 years old. The three main types of illness were aches and pains in joints or muscles (among adults aged between 30-39), diabetes and high blood pressure (among adults aged 40 or over). Other reported conditions were asthma, thyroid deficiency, and a rare blood condition called aplastic anaemia.

Chronically ill people were not spread evenly across households: five households were free of chronic illness, and five households had two or three members with a chronic condition. The table also highlights households with chronic conditions that caused permanent loss of work or occasional inability to work. The implications of these chronic illnesses for household livelihoods is examined in more detail in subsequent chapters.

Table 5.5: Chronic illness and ‘chronically ill households’

Household	Member (age) reported to have illness	Reported illness
Valli	▪ wife (39)	▪ aches & pains
Selvaraja	▪ wife (33) ▪ husband (35) ▪ wife’s mother (60)	▪ thyroid deficiency ▪ ache & pains ▪ high blood pressure
Jayasinghe	▪ husband (43)	▪ intestinal tumors
Sumithra	NONE	NONE
Ranjini	▪ mother (60) ▪ daughter (12)	▪ diabetes ▪ asthma
Rupa	▪ wife (36)	▪ aches & pains
Nimal	▪ husband (49)	▪ aplastic anaemia
Amali	NONE	NONE
Nishanthi	▪ wife (52) ▪ husband (57)	▪ diabetes ▪ kidney operation
Raja	▪ husband (36) ▪ wife (37)	▪ asthma ▪ asthma
Geetha	▪ wife (40)	▪ diabetes
Pushpa	NONE	NONE
Dilani	▪ wife (42) ▪ husband (44) ▪ wife’s mother (83)	▪ high blood pressure ▪ diabetes ▪ high blood pressure
Kumudu	NONE	NONE
Mayori	NONE	NONE
Mary	▪ wife (52)	▪ high blood pressure

Source: case study household data

Note: shading denotes households with chronic conditions that caused permanent loss of work or occasional inability to work

Acute illness disproportionately affected small children and households with small children. Five households contained a child under 5 years old, and in all these there were other children of school age. In four of these households, reported illness patterns indicated that children suffered from more acute illnesses than adults (Table 5.6), normally fever, flu and coughs. A baby under 1 year of age accounted for 50% of illness episodes in Sumithra’s household, 38% in Kumudu’s household, and 31% in Amali’s. The one exception was Pushpa’s household, in which the two parents suffered more illness than their two children.

Table 5.6: Concentration of illness among small children

Household	Number of episodes during 8 months among:			Total episodes in the household
	under 5s	other school age children (6- 16)	adults	
Sumithra	4	3	1	8
Kumudu	5	5	3	13
Amali	4	3	6	13
Selvaraja	5	3	4	12
Puspha	3	2	10	15

Several households, primarily those with more children, faced the problem of concurrent illness among members. Households which had a high frequency of acute illness, often those with small children, on occasions had to deal with more than one sick person at the same time (in particular Selvaraja, Pushpa, Dilani and Kumudu). For example months 5 and 6 were difficult ones for Selvaraja's household because her two children suffered from serious fever concurrently (with vomiting in month 5) and at the same time her nephew had an accident (breaking his teeth), her mother was also sick, and Selvaraja's swollen neck (due to thyroid deficiency) was giving her a lot of pain (Table 5.7).

Table 5.7: Concurrent illness in Selvaraja's household

Month	1	2	3	4	5	6	7	8
Selvaraja	thyroid deficiency					thyroid painful		
husband	rheumatic pains					eye infect.		
son					fever with vomit.	fever		
daughter		fever		flu	fever with vomit.	fever cough		
nephew					accident			
mother	high blood pressure				toothache	cough & vomit.		

Note: light grey shading indicates chronic illness; dark grey shading indicates acute illness episodes.

Dilani's household experienced concurrent illness in 4 months, in particular months 2 and 6 (Table 5.8) and in each month at least one of her children experienced illness, including a serious urinary tract infection for her second son involving "blood in the urine, headaches and fever".

Table 5.8: Concurrent illness in Dilani's household

Month	1	2	3	4	5	6	7	8
Dilani	high blood pressure				stomach	cough		
husband	diabetes			fever				
son		fever	fever	cough		cough		
son		fever	accident				urinary	
daughter		fever			fever	cough		fever
mother	high bld pressure	fever						

Note: light grey shading indicates chronic illness; dark grey shading indicates acute illness episodes.

The problem of clustered or concurrent illness among household members has implications for ability to pay because it is likely to concentrate illness costs into a

particular week or month and contribute to the 'lumpy' nature of cost burdens (see section 5.7.2).

5.4 Overview of treatment responses identified in the survey

Chapter 4 described the main types of health care provider available to households in Colombo. This section briefly describes the treatment responses of individuals identified by the household survey, but does not consider their role in cost management, which is analysed in more detail in Chapter 8.

Table 5.9 shows first and second responses for acute OP care. The most common first response to acute illness was self-treatment (58% of cases), especially for common or minor illnesses such as coughs, colds and flu. Three types of self treatment were recorded: traditional herbal remedy (*at behet*), the most common first response to coughs and colds, especially use of boiled coriander (*koththamalli*); western medicine already in the home, usually paracetamol or cough syrup; and western medicine bought from a local shop, usually paracetamol.

Private western providers, either pharmacies or doctors, were the second most common first treatment response (22%), more frequently used than public western providers (13%). Traditional herbal remedies and western medicine were far more common than use of Ayurvedic medicine: in only 4 cases (1.5%) did people use an Ayurvedic practitioner as a first response. Forms of magico-religious remedy for acute illness, such as puja and exorcism, were also rare and reported by only 3 people (1%).

A second action was not taken in 50% of the acute cases for which treatment was sought (128/256). Most second actions followed self-treatment as a first response (Table 5.9). Overall, the most common second responses were to seek treatment from a private pharmacy (12% of cases treated) or self treatment (11%). A third action was taken in 36 out of 256 cases (14%).

These responses indicate people usually treated acute illness (in only 10 cases (3.9%) did they not) and that a considerable proportion (50%) were persistent in their search for treatment, choosing different treatment sources if the first response failed. They also

show that western medicine dominated people's choice of formal provider compared to Ayurvedic medicine, and that private providers were more frequently used than public providers.

Table 5.9: First and second treatment responses to acute illness

First response	# (%)	Second response							
		no 2nd action	self treatment	private doctor / clinic	private pharmacy	municipal dispensary	public hospital OPD	other	TOTAL
no treatment	10 (4%)								0
Self treatment	153 (58%)	→ 55 (36%)	27 (18%)	22 (14%)	17 (11%)	16 (11%)	14 (9%)	2 (1%)	153 (100%)
private doctor / clinic	41 (15%)	→ 25 (61%)			13 (32%)		3 (7%)		41 (100%)
private pharmacy	18 (7%)	→ 16 (89%)					1 (5%)	1 (5%)	18 (100%)
municipal dispensary	19 (7%)	→ 13 (70%)	1 (5%)				5 (25%)		19 (100%)
public hospital OPD	17 (6%)	→ 14 (82%)			1 (6%)			2 (12%)	17 (100%)
other ^a	8 (3%)	→ 5 (63%)		2 (25%)			1 (12%)		8 (100%)
TOTAL	266 (100%)	→ 128 (50%)	28 (11%)	24 (9%)	31 (12%)	16 (6%)	24 (9%)	5 (2%)	256 (100%)

^a public or private ayurvedic treatment, puja and use of an exorcist.

Source: Household survey (March/April 1998)

For chronic conditions and IP care public western providers were the most common source of treatment. For chronic or long term conditions 194 out of 342 people (56%) sought regular treatment, and the most common action was to go to a public provider (Table 5.10), usually once per month at OP clinics held at one of the general hospitals. The second most common response was to use a private provider (28%), either a private doctor for regular consultations and drugs, or simply a pharmacy. Others adopted a mixed strategy (14%), attending government hospital clinics but also purchasing drugs from a pharmacy and / or tests at a private laboratory.

Table 5.10: Chronic illness: treatment responses of those seeking regular care

Response	Individuals seeking regular chronic care
traditional herbal remedy	1 (0.5%)
public provider(s)	93 (47.9%)
private provider(s)	55 (28.4%)
public/private mix of providers	28 (14.4%)
public ayurvedic	6 (3.1%)
NGO provider	6 (3.1%)
other combinations	5 (2.6%)
Total	194 (100.0%)

Source: Household survey (March/April 1998)

For serious conditions requiring IP care, the vast majority of people (141 out of 148 or 95%) used one of the public tertiary hospitals in Colombo. These hospitals were seen as the ultimate source of care, with the best specialist doctors and most advanced equipment, and households which usually used private providers for acute OP care resorted to a government hospital for admissions.

5.5 Summary of illness costs

5.5.1 Household spending on illness by type of illness and cost item

Household spending on illness per month was highest for acute OP care, which accounted for 67.2% of total spending, lower for chronic illness (22.4%) and lowest for hospital IP care which accounted for only 10.4% of total spending³ (Table 5.11). These spending patterns in general reflect the different treatment strategies used for different types of illness (examined in detail in Chapter 8).

Table 5.11 shows that the highest levels of total spending went on consultations (39.8%), drugs (32.6%) and transport costs (13.6%). Broken down by type of illness, the three highest cost items (shaded in the table) were drugs and consultations for acute OP care, and drugs for chronic care (making up 66.2% of all costs).

³ Spending on hospitalisation would have been even lower if 5 people admitted to private hospitals had been excluded from analysis, as they accounted for 3.5% of people hospitalised but 33% (Rs.5345) of total hospital spending (see Chapter 8). If excluded, monthly spending on government hospital care would have accounted for only 7.2% of total illness-related spending.

Table 5.11: Total spending on illness per month by all survey households (n=423), by illness type (all figures Rupees per month)

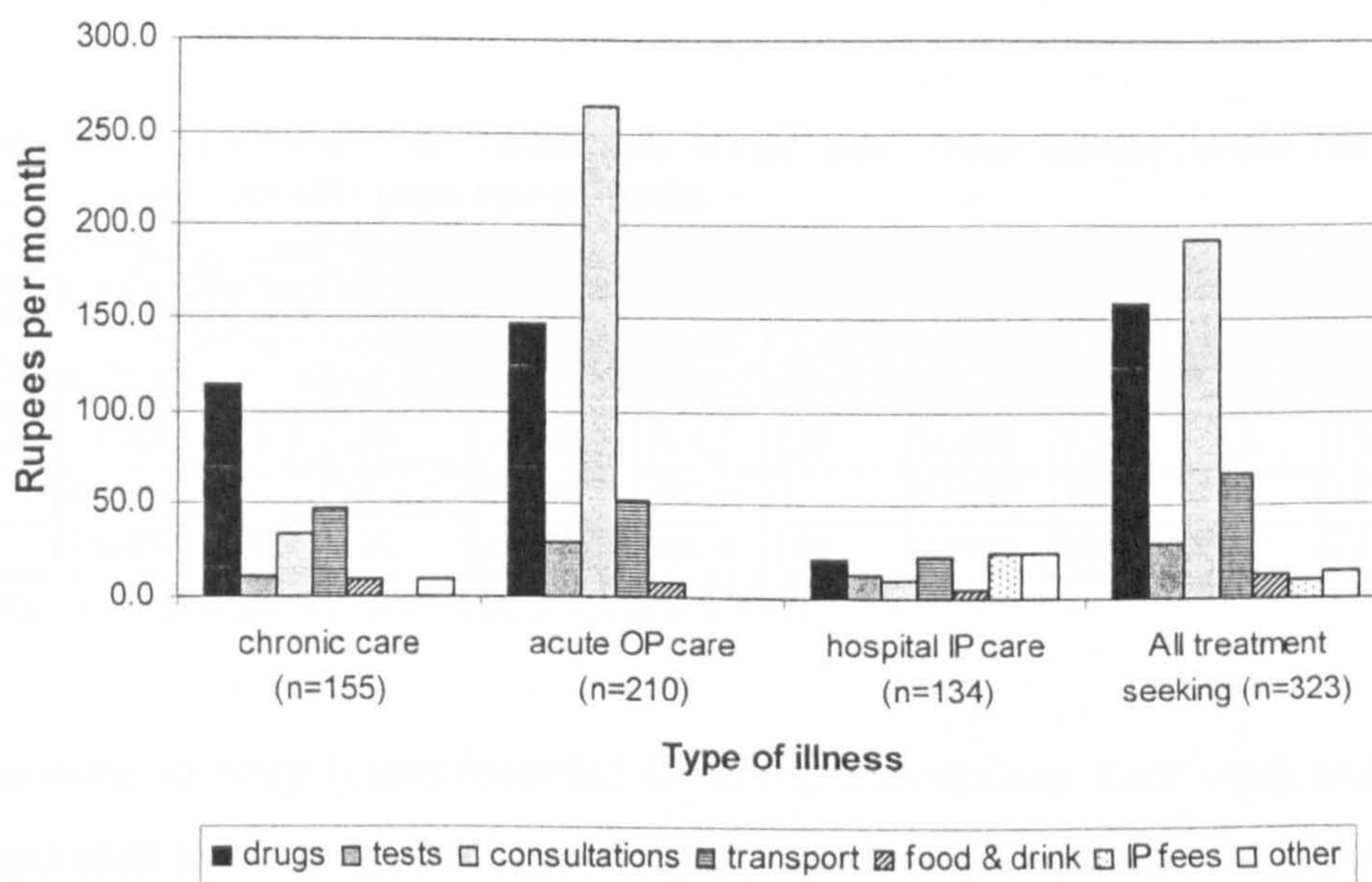
Category	Chronic care		Acute OP care		Hospital IP care		Total spending	
	<i>total</i>	<i>% of total spending</i>	<i>total</i>	<i>% of total spending</i>	<i>total</i>	<i>% of total spending</i>	<i>total</i>	<i>% of total spending</i>
IP fees	0	0.0	0	0.0	3238	2.1	3238	2.1
drugs	17585	11.2	30688	19.6	2849	1.8	51122	32.6
consultations	5430	3.5	55450	35.4	1413	0.9	62293	39.8
tests	1798	1.1	6180	3.9	1643	1.0	9621	6.1
surgery	0	0.0	0	0.0	442	0.3	442	0.3
transport	7408	4.7	10954	7.0	3020	1.9	21382	13.6
bribes/gifts	0	0.0	80	0.1	38	0	118	0.1
food & drink	1446	0.9	1850	1.2	752	0.5	4048	2.6
alms & prayer	1430	0.9	0	0.0	0	0.0	1430	0.9
other	48	0	30	0	2879	1.8	2957	1.9
TOTAL	35145	22.4	105232	67.2	16274	10.4	156651	100.0

Source: Household survey (March/April 1998)

Figure 5.2 summarises mean household spending per month⁴ on different cost items for different types of illness. The most striking feature of the graph is the higher mean level of spending on acute OP care compared to hospital IP care, and that on average households spent more on consultation fees for acute OP treatment (Rs.264 per month) than they did on hospital IP fees (Rs.24 per month). Mean household spending on drugs was also higher for acute OP treatment (Rs.146) than chronic treatment (Rs.114), and much higher than spending on drugs received at hospitals (Rs.26).

⁴ Mean figures for cost items within each illness category were calculated by taking total spending on the cost item and dividing by the number of households that experienced that type of illness and sought care: 155 households had one or more chronically ill member that sought care; 210 households had one or more acutely ill member that sought care; and 134 households had one or more member admitted to hospital. In total 323 households experienced at least one type of illness and sought care. One hundred households did not seek any care (74 had no illness, 26 had illness but did not seek care).

Figure 5.2: Mean spending by households on different cost items, by type of illness



5.5.2 Average financial costs, wage costs and total costs of illness

For each type of illness, Table 5.12 summarises household financial costs, wage costs and total costs of illness, in terms of total, mean and median costs per month. Wage costs were calculated by taking lost days of pay and multiplying by an average daily wage of Rs.150 (see Chapter 3 on why this figure was used).

Table 5.12: Summary of financial, wage and total illness costs for households seeking treatment (Rupees per month)

	Chronic care / illness (n=155)			Acute OP care / illness (n=210)			Hospital IP care / illness (n=134)			All treatment / illness (n=323)		
	total costs	mean	median	total costs	mean	median	total costs	mean	median	total costs	mean	median
Financial costs	35145	228.2	100	105232	503.5	120	16274	121.4	12.5	156651	487.4	138
Wage costs	na	Na	na	82500	392.9	0	24688	184.2	0	107188	331.9	0
Total costs	35145	228.2	100	192232	896.4	190	40962	305.6	53.5	269226	819.3	240

Source: Household survey (March/April 1998)

There were no wage losses recorded for chronic conditions. Lost work and wages were incorporated into the acute illness category because it was hard to distinguish between an acute condition and a deteriorated chronic condition. If the chronic condition deteriorated and required hospital IP care, wage losses came under the hospital IP category. In fact lost wages due to chronic illness appeared to be minimal, because the majority of people with a chronic condition were either elderly and did not work, or their work was not affected by their condition.

For all illnesses taken together, mean financial costs for households (Rs.487) were higher than mean wage costs (Rs.332). With respect to financial costs, mean and median costs were highest for acute OP care, lower for chronic care and lowest for hospital IP care. Median spending on hospital IP, for example, was only Rs.12.5 per month (about 10 pence), compared to median spending on chronic care of Rs.100 and Rs.120 for acute OP care. With respect to wage costs, median costs were zero for all types of illness, showing that at least 50% of all those who were sick did not lose any paid work days.

Mean or median total illness costs (bottom row) were much lower for hospital IP care and chronic illness than for acute OP care. The low costs for chronic illness were partly the result of no wage costs being allocated to this type of illness, and the low costs for

hospital IP care were largely because of low financial costs. Overall the mean total cost of illness was Rs.819 per month, compared to a mean household income of Rs.9446 in the two communities. And the median total cost of illness was Rs.240 per month, compared to median household income of Rs.8572 in the two communities.

5.6 Illness cost burdens

5.6.1 Average cost burdens

Financial and wage cost burden levels for each household were generated by expressing spending on illness per month, or wages lost per month due to illness, as a percentage of monthly household income. Figure 5.3 shows that for different types of illness, median wage cost burdens were zero and median financial cost burdens were very low, especially for hospital IP care for which the median financial cost burden was only 0.18% of monthly income. For all treatment the median financial cost burden for households was only 1.32%.

Figure 5.4 shows that corresponding mean cost burdens were higher, and notably acute OP care imposed a much higher financial cost burden (7.61%) than chronic care (2.16%) or hospital IP care (1.17%). For all treatment the mean household financial cost burden (6.46%) was higher than the mean wage cost burden (4.56%).

Figure 5.3: Median financial and wage cost burden, by type of illness

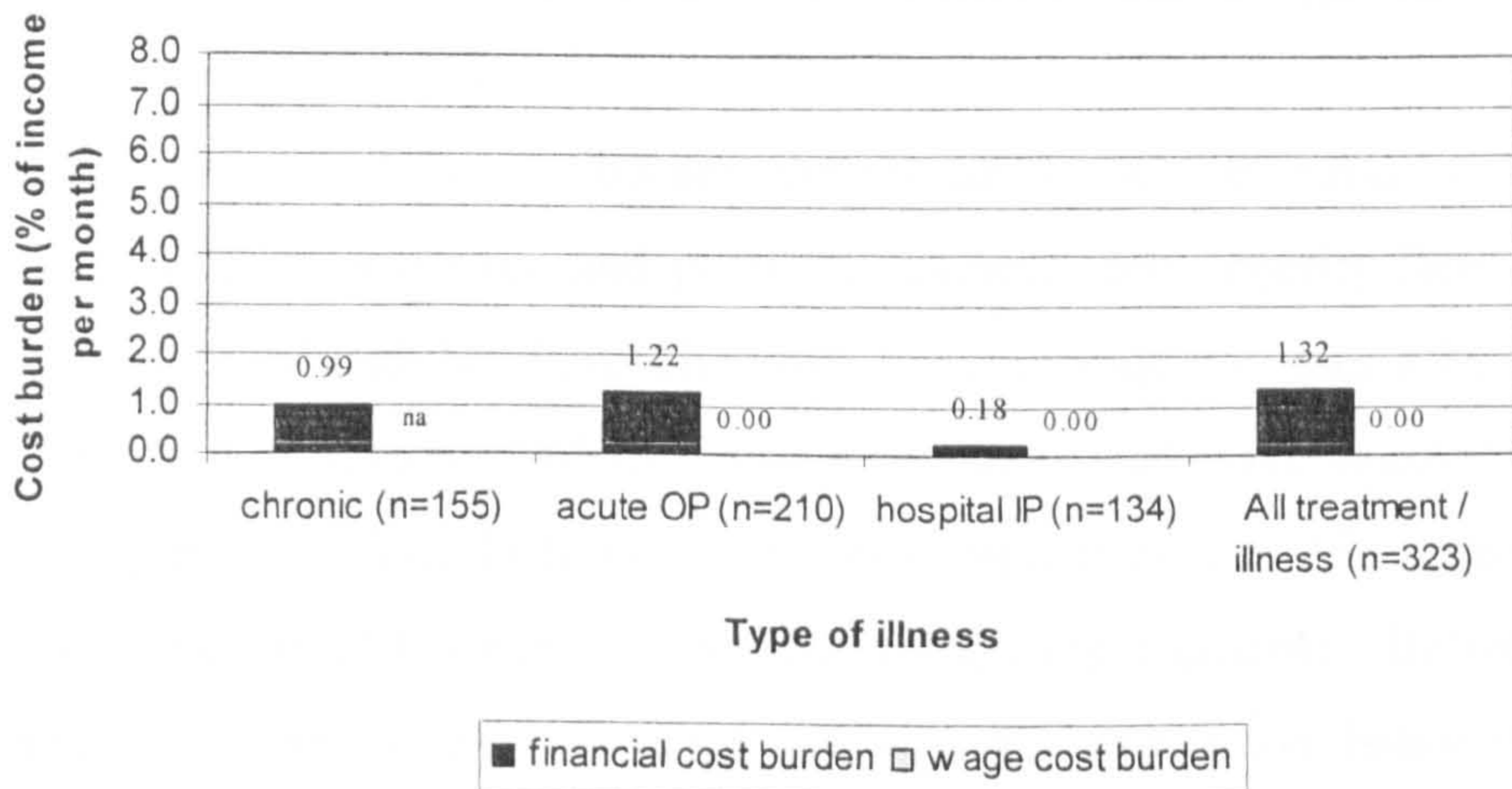


Figure 5.4: Mean financial and wage cost burden, by type of illness

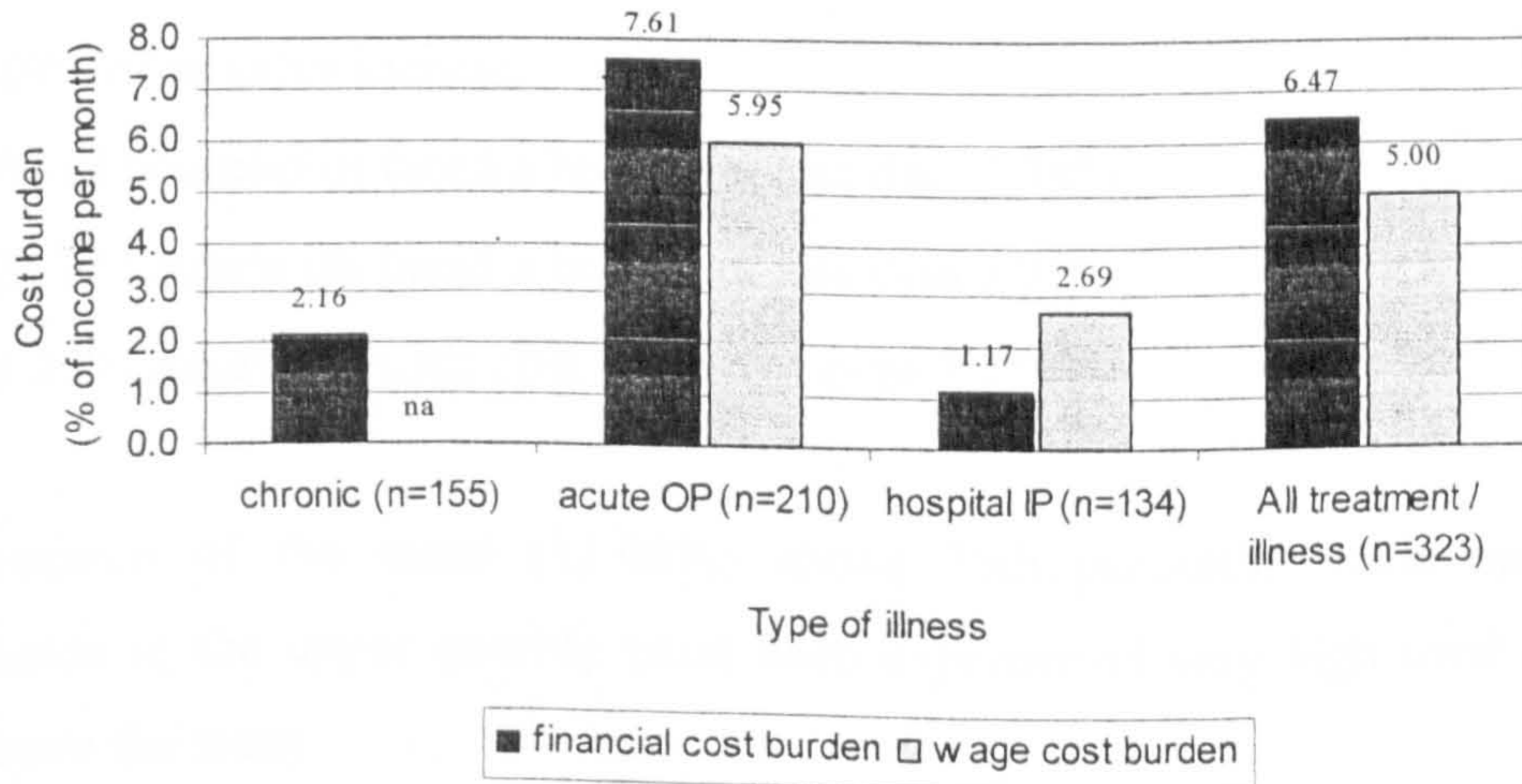


Figure 5.5 shows that when wage and financial cost burdens are added together this generates a high mean total cost burden of 11.03% for the 323 households that sought care, but the median total cost burden was much lower at 2.7%. Again the main feature of total cost burdens is that they are much higher for illnesses requiring acute OP care than for chronic illness or hospital IP care.

5.6.2 Distribution of costs burdens across households that sought care

Higher mean than median cost burden figures show the distribution of cost burdens across households was uneven and positively skewed: the majority faced low burdens but a minority faced high burdens. The inter quartile range provides a basic measure of the distribution of total cost burdens across households, and is represented by the shaded boxes in Figure 5.6. The bottom of the box represents the 25th percentile (lower quartile) and the top of the box the 75th percentile (upper quartile). Between these two values and within the box lie 50% of the values in the distribution; below the box lie the lowest 25% of the values; and above the box lie the top 25% of values. The median value is the central value in the series – 50% of values lie above it and 50% below. The values of the 25th, 50th (median) and 75th percentiles have been placed on the graph.

For all illnesses:

- 25% of households that were ill incurred a total illness cost burden of less than 0.49% of monthly income;
- 50% of households faced a burden of less than 2.74%;
- 75% of households faced a burden of less than 7.75%;
- but 25% incurred a total cost burden of over 7.75%.

The position of the mean (11.03%) above 75th percentile value indicates some households in the upper quartile must have experienced very high total cost burdens well above the mean.

Figure 5.5: Average total cost burdens (mean and median), by type of illness

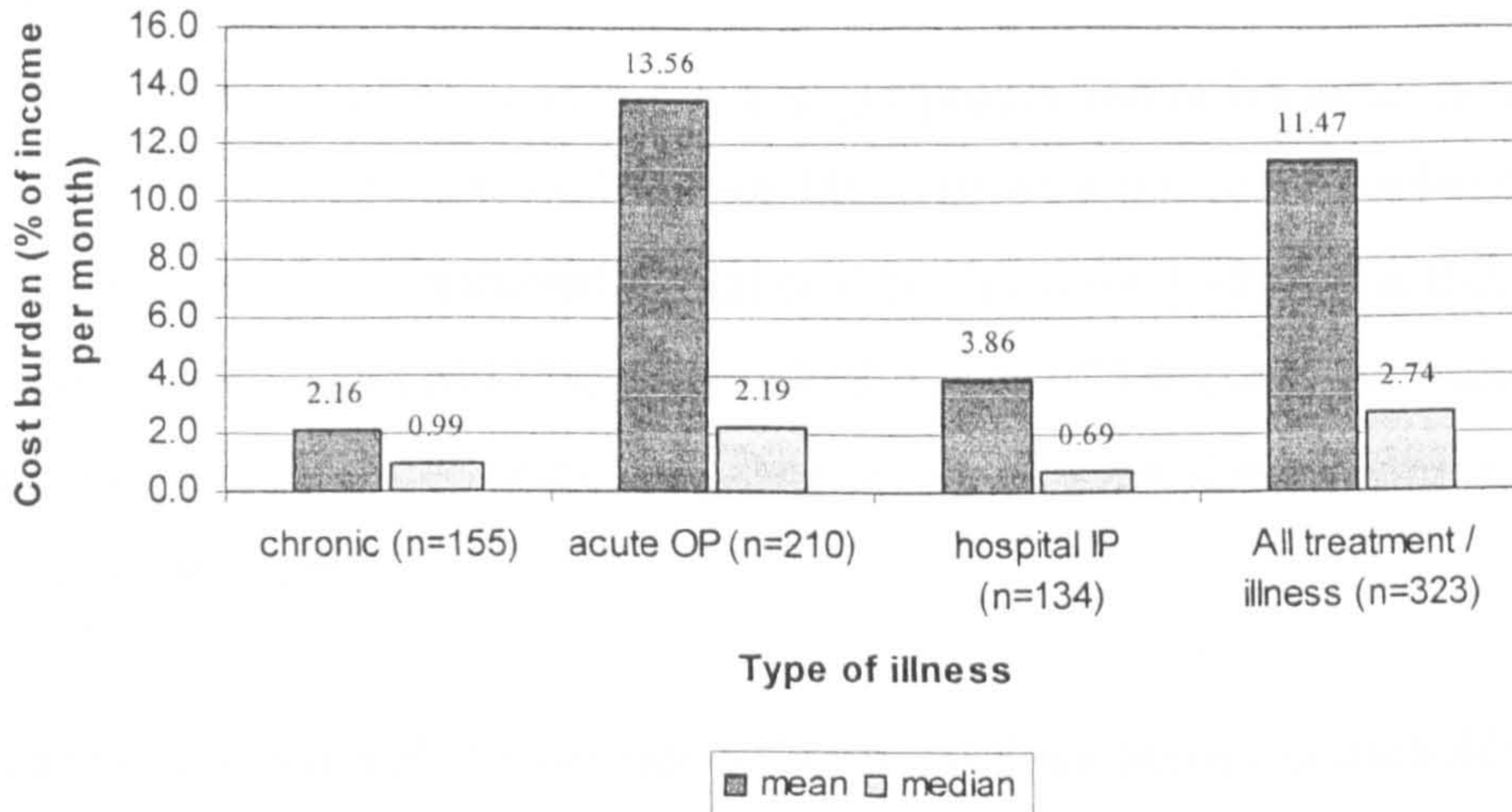
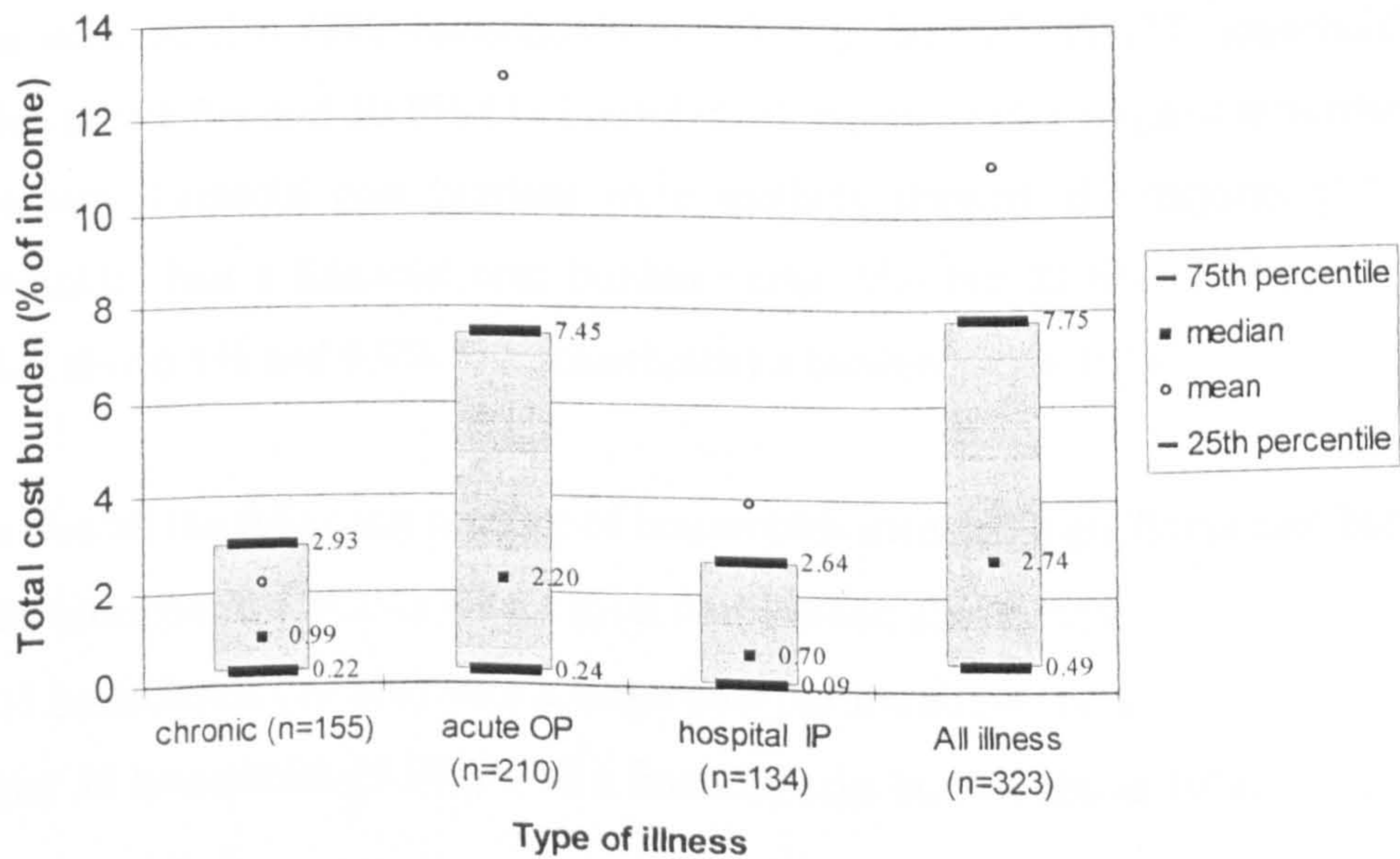


Figure 5.6: Distribution of total illness cost burden across households: interquartile range of values by type of illness



Breaking down this analysis by type of illness, Figure 5.6 shows the spread of total cost burden values was much lower for chronic or hospital IP care than for acute conditions, with the majority of values concentrated below 3%:

- for hospital IP care 75% of households incurred a total cost burden of less than 2.64%, and 50% of households a burden less than 0.7% of income;
- for chronic conditions 75% of households also incurred a low total cost burden of less than 2.93%;
- in contrast for acute OP conditions a larger proportion of households suffered higher burdens, for example 25% of households incurred a total cost burden between 2.2% and 7.45%, and 25% incurred a total cost burden over 7.45%. The fact that the mean figure is very high (12.88%) and well above the 75th percentile value also shows that the distribution of acute cost burdens was highly skewed with extreme values inflating the mean.

The uneven and skewed distribution of cost burdens across households is shown in more detail in Figure 5.7. The majority (65.3% or 211 households) faced a total cost burden of 5% or less, 34.7% (112 households) faced a total cost burden over 5%, but a considerable minority – 62 households or 19.2% – faced a total cost burden over 10%.

Figure 5.8 breaks down the total cost burden distribution into financial and wage cost burden components. The vast majority of households that were sick did not incur any wage cost burden (228 households or 70.6%), but 17.6% (57 households) faced a burden above 5% and 10.8% (35 households) experienced a wage cost burden over 10% of income. Financial cost burdens were similarly skewed: the majority (77.4% or 250 households) had a financial cost burden under 5%, but 22.6% (73 households) had a burden above 5% and 9.9% (32 households) a burden above 10%.

Thus overall the following number of households incurred high illness cost burdens:

- 62 households (19.2%) with a total cost burden above 10%
- 35 households (10.8%) with a wage cost burden above 10%
- and 32 households (9.9%) with a financial cost burden above 10%.

Figure 5.7: Distribution of total illness cost burden across households

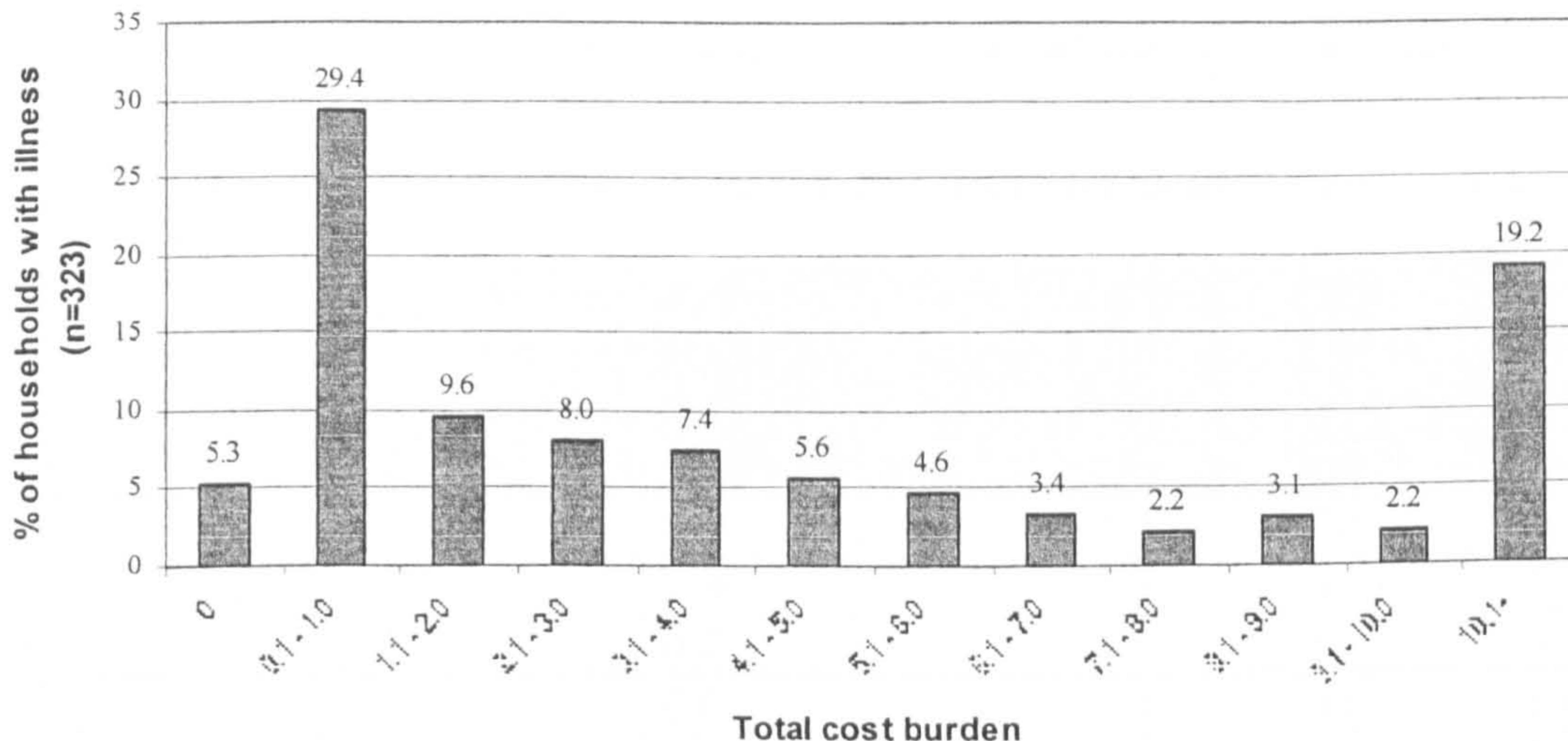
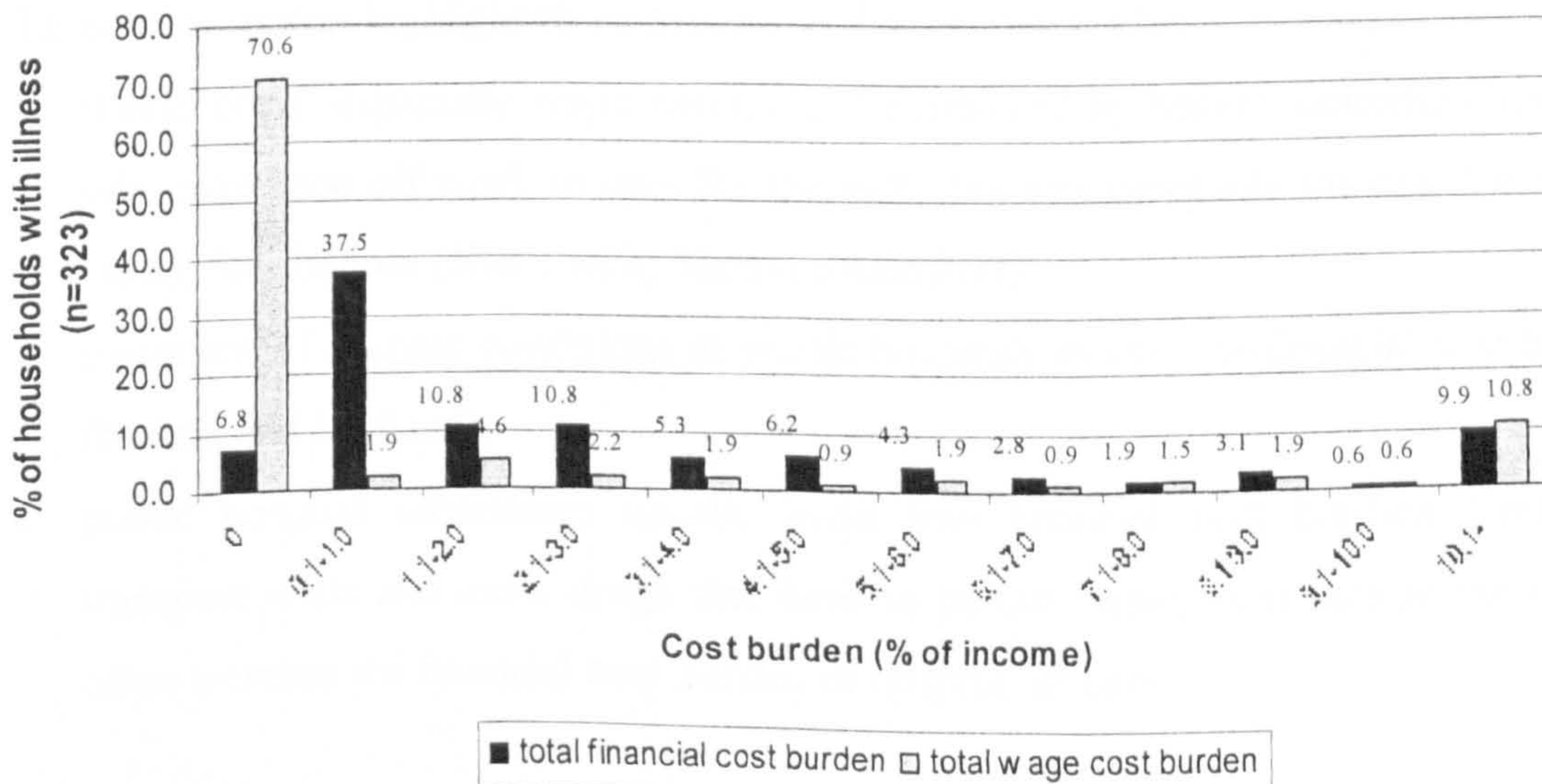


Figure 5.8: Distribution of financial illness cost burdens and wage cost burdens across households



For these three groups, Table 5.13 provides more information about the distribution of cost burdens above 10%. Most households with a financial cost burden above 10% (23 out of 32) incurred a burden between 10.1% and 20%; in contrast most households with a wage cost burden above 10% (21 out of 35) incurred higher burdens over 20%, and 11 of these households (3.4%) incurred wage cost burdens above 40%. Overall 15 households (4.6%) incurred a total illness cost burden above 40% of income.

Table 5.13: Distribution of high illness cost burdens (above 10%) across households

Cost burden	Financial cost burden above 10% (n=32)		Wage cost burden above 10% (n=35)		Total cost burden above 10% (n=62)	
	no.	%	no.	%	no.	%
10.1–20.0%	23	7.1	14	4.3	30	9.3
20.1–30.0%	6	1.9	5	1.5	8	2.5
30.1–40.0%	1	0.3	5	1.5	9	2.8
40.0–100.0%	0	0.0	11	3.4	11	3.4
over 100%	2	0.6	0	0.0	4	1.2
Total households	32	9.9	35	10.8	62	19.2

Source: Household survey (March/April 1998)

It is these high cost burden groups that are likely to be most vulnerable to ability to pay problems, and two of the 62 households that incurred a high cost burden are described in more detail in Boxes 5.3 and 5.4.

These case studies highlight three aspects of illness cost burdens:

- illness costs, especially wage costs, can be incurred by healthy household members who take time off work to care for the sick; this was especially the case for women caring for children (Jiva's wife, Malani's daughter);
- treatment of chronic conditions at public hospitals incurs low financial cost burdens (Malani and husband);
- public hospital admissions usually incur low financial cost burdens (Jiva), but transport costs and extra drugs that have to be purchased from outside the hospital often increase the financial cost burden of hospital IP care.

Case study box 5.3: Jiva (see Box 5.1)

The household reported 6 illnesses (see Box 5.1) and incurred a high illness cost burden:

Financial cost burden: 14.8%
 Wage cost burden: 22.2%
 Total cost burden: 37.0%:

The high wage cost burden was due to Jiva's wife losing 7 days work to care for the sick daughter when she was admitted to hospital with serious asthma. Jiva also lost wages when he was admitted to hospital for 2 days. Total financial costs of illness were high at Rs.830:

* for the 2 chronic conditions: the household spends Rs.200 per month on transport and food and drink when they take the two youngest daughters to an asthma clinic at the government children's hospital to get ventoilin tablets.

* for the 2 acute conditions: the household spent Rs.30 in the last 2 weeks: the two daughters' fever and cold were treated with *koththamalli* and paracetamol from a local shop (Rs.30).

* for the 2 hospital admissions: Jiva spent no money when he was in hospital for 2 days with a knee injury (and got a free lift to the hospital from a friend). When the daughter was admitted to hospital suffering from an asthma attack no financial costs were incurred from the hospital stay itself (free IP care), but the household had to spend Rs.300 on transport and Rs.300 was later spent at a pharmacy on tablets for asthma, which the doctor had recommended but the government hospital did not have at the time.

The household had to adopt cost management strategies to cope with these high cost burdens: Jiva's wife pawned jewellery, and they twice borrowed money from a neighbour.

Case study box 5.4: Malani

This household suffered from 4 illness (2 chronic and 2 acute) and incurred a high illness cost burden:

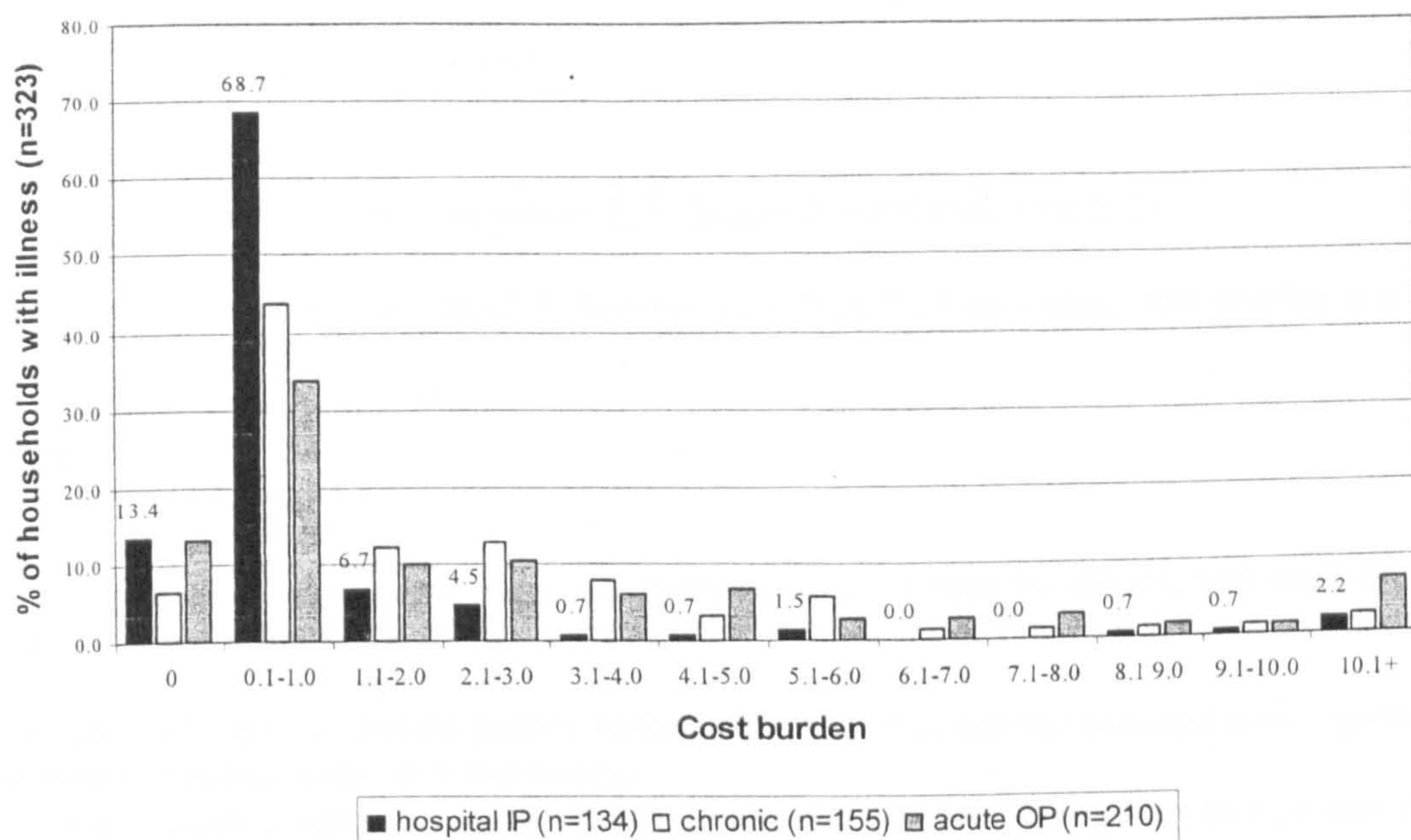
Financial cost burden: 2.0%
 Wage cost burden: 24.0%
 Total cost burden: 26.0%:

Malani (aged 58) and her husband live with their daughter and her husband and three children (aged 9, 9 and 7). They both have mild asthma (the husband also had a cataract problem), which they treat through regular monthly visits to the government hospital to obtain medicine. This incurred costs of only Rs.14 per month for transport.

In the previous 2 weeks two of their grandchildren developed a skin rash due to the heat and humidity of the pre-monsoon period, and one also developed a fever. The fever became quite serious, the rashes spread to the girls' faces and lasted for 14 days, so their mother (Malani's daughter) took 2 weeks off work to care for the two girls, losing half her month's pay and a quarter of the household's income.

Survey data show that public hospitals protect the vast majority of households from high financial cost burdens for IP care (Figure 5.9): 82.1% of households faced a financial cost burden between zero and 1.0%, and only 5.2% had a burden above 5%. In contrast a higher percentage of households incurred a financial cost burden above 5% for chronic or acute illness requiring OP care (13.5% and 19.5% respectively).

Figure 5.9: Breakdown of financial cost burden distribution across households, by type of illness



Finally, households with a high illness cost burden did not necessarily experience a high level of illness. Out of 62 households with a total cost burden above 10%, only 15 reported 4 or more illnesses, whereas 39 reported only 1 or 2 illnesses that incurred high costs. The case of Maheshwari in Case study box 5.6 illustrates how a low cost burden can be incurred despite a high number of reported illnesses, and highlights the importance of seriousness of illness to costs, and again the financial protection offered to poor households from free IP care.

Case study box 5.5: Maheshwari (see box 5.2)

Although the household reported 5 illnesses (see Box 5.2) its illness cost burden was very low:

Financial cost burden: 0.75%

Wage cost burden: nil

Total cost burden: 0.75%

Wage costs were nil because no wage earners were affected by illness, and total financial costs of illness were low at Rs.110 per month:

* for the 2 chronic conditions neither Maheshwari's mother nor her husband seek regular care for their asthma because '*it is not serious*'.

* for the 2 acute conditions needing OP care, she took both her young sons to a private doctor who charged Rs.100 for a consultation and medicine.

* when the youngest son was admitted to the government children's hospital for 10 days, they spent Rs.120 on transport, and this averaged out to Rs.10 per month.

5.6.3 Distribution of cost burdens across income groups

Figure 5.10 compares the average (mean and median) illness cost burden experienced by households in each income quartile. Both mean and median figures are used because the values are substantially different. Households in the poorest income quartile incurred the *lowest median* total cost burden (2.2%), and for all income groups the median total cost burden was below 4%. In contrast the poorest households incurred the *highest mean* total cost burden (24.4%), three or four times higher than the burden experienced by higher income groups (Figure 5.10).

When the mean total cost burden is broken down into financial and wage cost components (Figure 5.11), the source of the higher mean cost burden for the poorest is shown to be from both types of cost: the poorest households incurred a higher mean financial cost burden (15.2%) and a higher mean wage cost burden (9.1%) than the other three income quartile groups.

The poorest group of households had a high mean illness cost burden compared to other groups because a higher number of households in the poorest group faced extremely high cost burdens. Table 5.14 shows that out of the 62 households that incurred a total cost burden over 10% (see above section), more were from the poorest income quartile group than any other (20 households). Converted to percentages, 24.4% of households in the poorest group that suffered illness incurred a burden over 10%, compared to 18.2% for the highest income group and 19.2% for all households.

Table 5.14: Distribution of total cost burdens that were over 10% of income, by income quartile group

Cost burden	Household income per capita quartile group				Total
	1	2	3	4	
No. of households with a total cost burden over 10%	20	12	16	14	62
No. of households that suffered illness	82	90	74	77	323
% of ill households with a total cost burden over 10%	24.4%	13.3%	21.6%	18.2%	19.2%

Acute illness requiring OP care was the source of these extreme cost burdens for the poorest households, rather than chronic care or hospital IP care. Table 5.15 shows that for acute illness more households in the poorest group incurred a wage cost burden over 10% than in other income groups (in the shaded cells 12 out of the 53 poorest households or 22% of poorest households). And 5 households in the poorest quartile incurred a wage cost burden between 50–100% (Table 5.15). With respect to financial cost burden, Table 5.16 also shows that for acute illness a higher proportion of households in the poorest quartile incurred a burden over 10% (in the shaded cells 8 out of 53 or 15% of poorest households). And 2 households in the poorest quartile faced a financial cost burden over 100%.

Table 5.15: Distribution of wage cost burdens across income quartile groups for acute illness requiring OP care (no. of households)

Cost burden	Household income per capita quartile group				Total
	1	2	3	4	
0	37	45	38	39	159
0.1-10	4	6	9	6	25
10.1-20	1	2	4	2	9
20.1-30.0	2	0	0	1	3
31.1-40.0	2	0	2	0	4
41.1-50.0	2	0	1	0	3
50.1-100.0	5	1	1	0	7
Total	53	54	55	58	210

Figure 5.10: Average total illness cost burden by income group

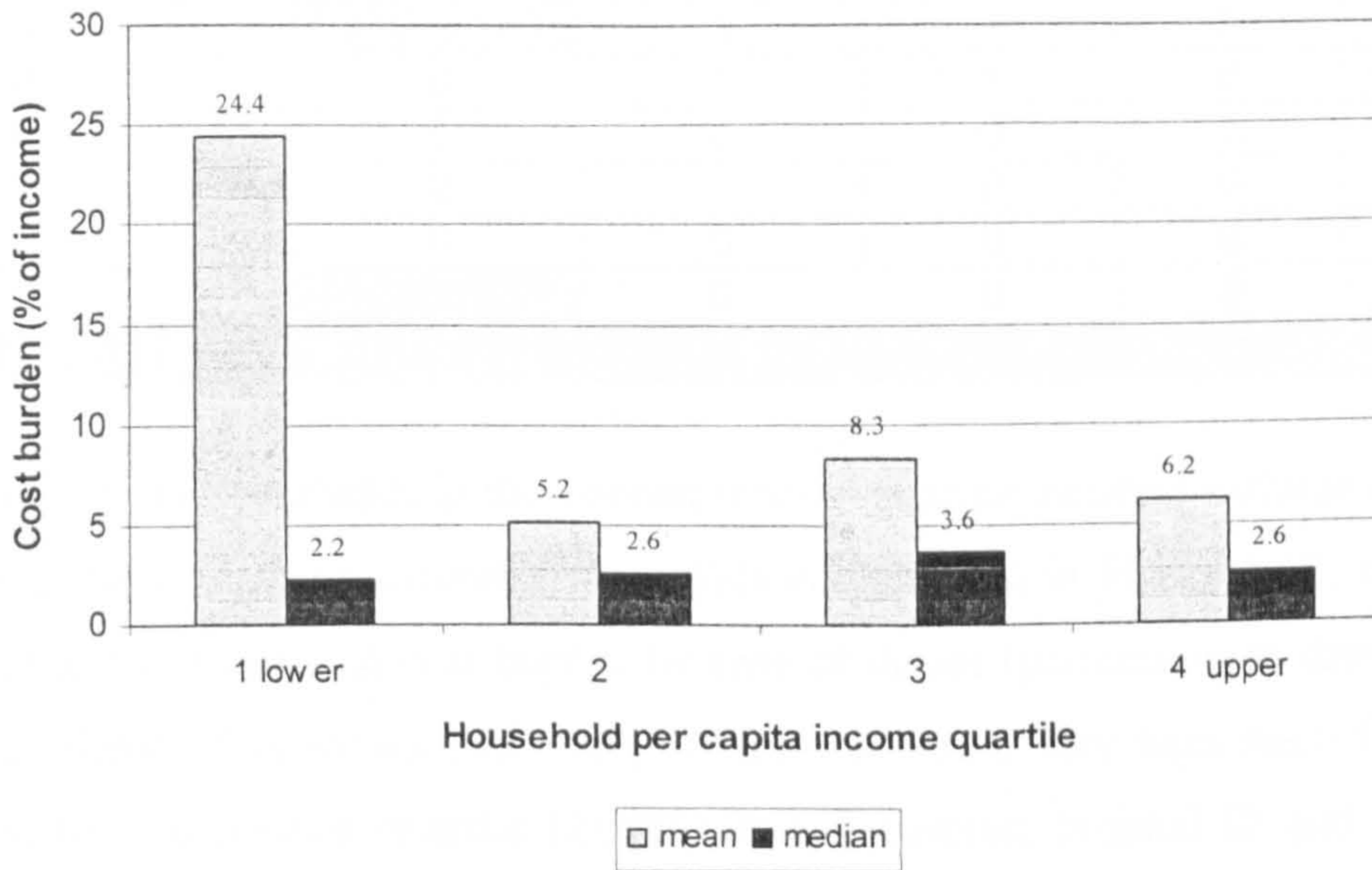


Figure 5.11: Mean financial and wage cost burdens by income group

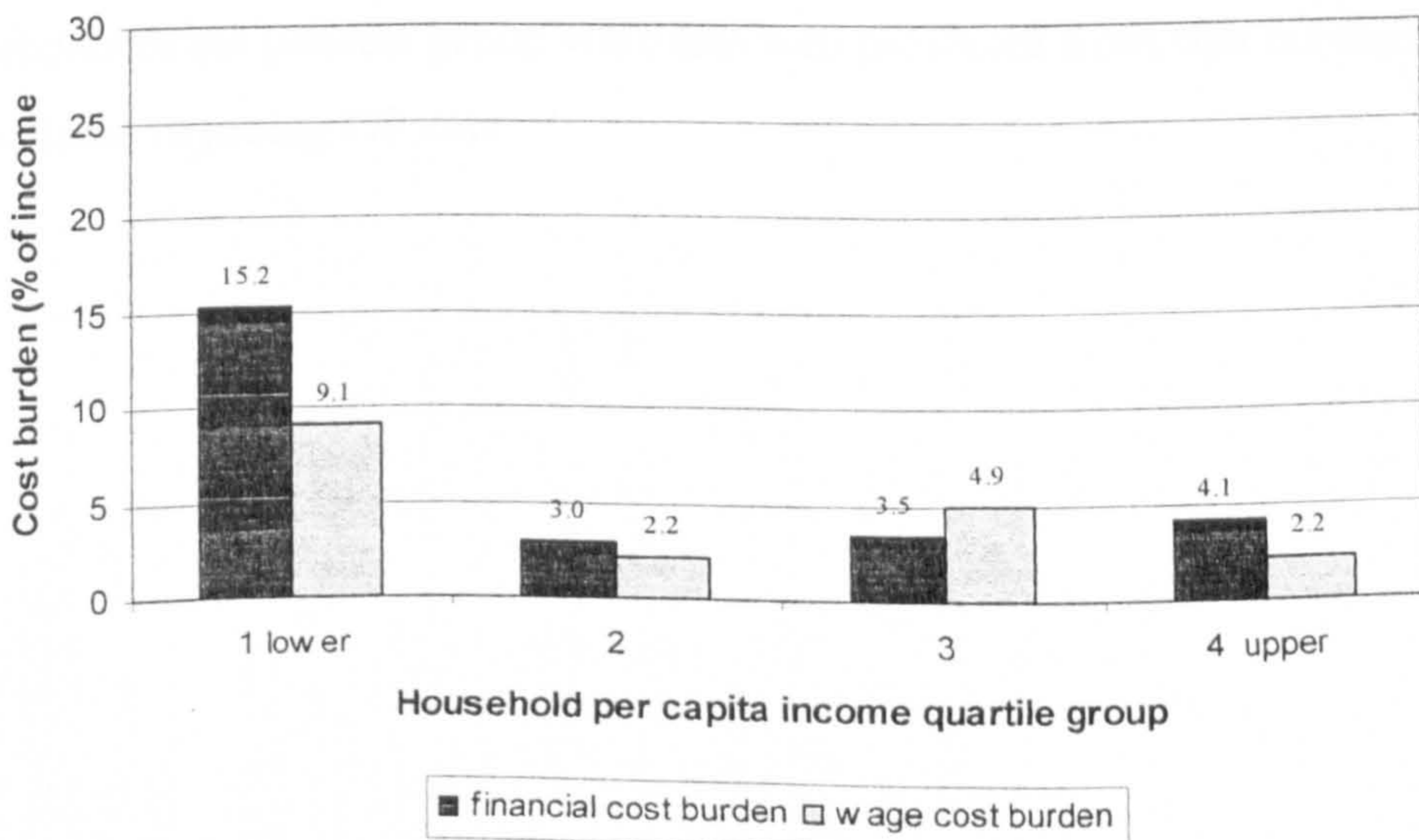


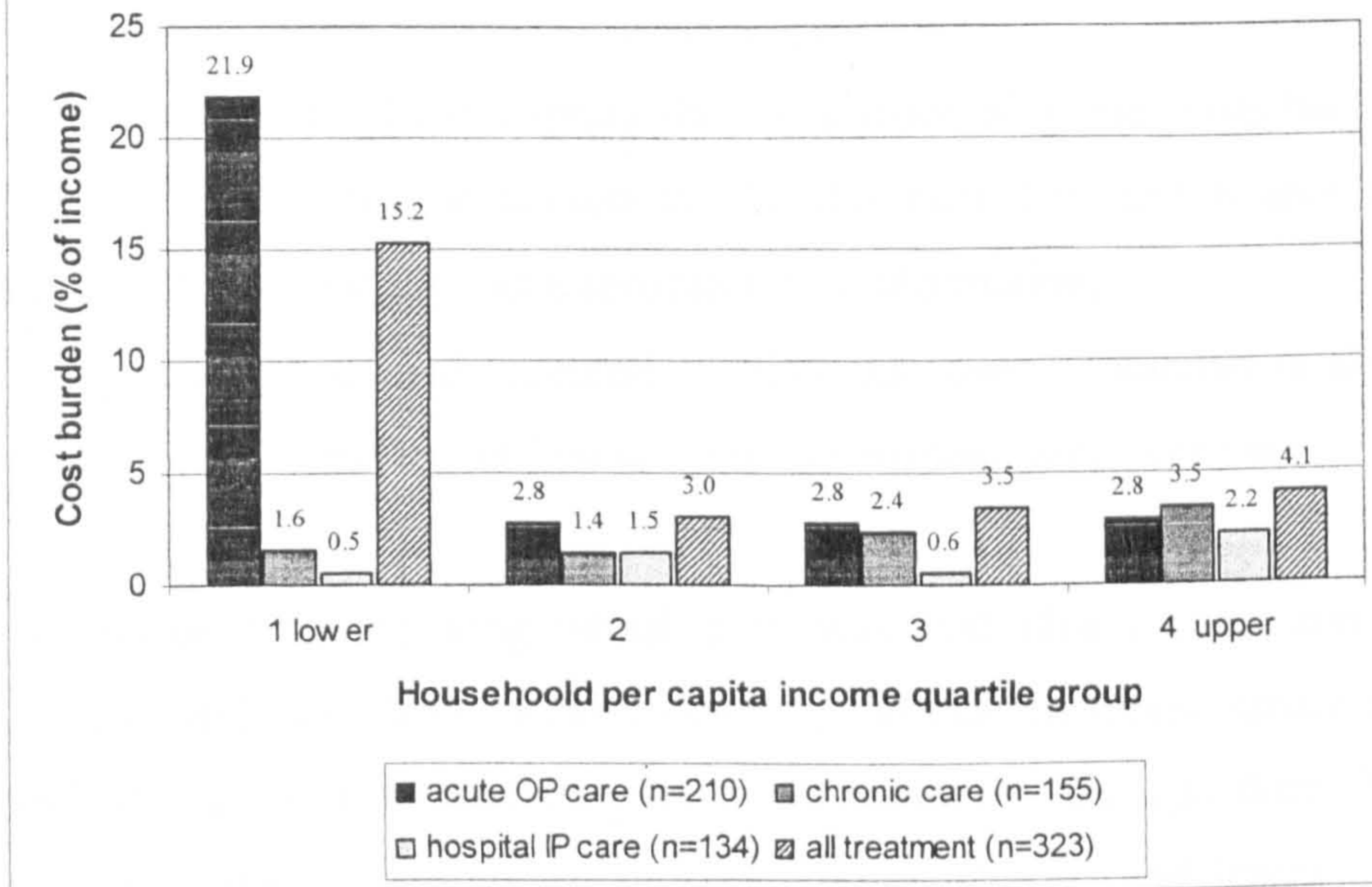
Table 5.16: Distribution of financial cost burdens for acute OP care across income quartile groups (no. of households)

Cost burden	Household income per capita quartile group				Total
	1	2	3	4	
0	11	7	6	4	28
0.1–10	34	45	47	41	167
10.1–20	6	1	1	3	11
20.1–30.0	0	1	1	0	2
31.1–40.0	0	0	0	0	0
41.1–50.0	0	0	0	0	0
50.1–100.0	0	0	0	0	0
101.0+	2	0	0	0	2
Total	53	54	55	48	210

In contrast, no households in the poorest income quartile incurred extreme cost burdens for hospital IP care or chronic illness. This is illustrated in Figure 5.12, which breaks down the mean financial cost burden by type of illness (patterns were similar for wage cost burdens). This shows that acute OP care caused a very high mean financial cost burden for the poorest quartile (21.9%), but in contrast hospital IP and chronic care generated much lower mean financial cost burdens of only 0.5% and 1.6% respectively.

This section has shown that households in the poorest income quartile had the lowest median total illness cost burden, and were protected from the potentially serious financial costs of hospital IP care and chronic illness. However, a minority of households in the poorest group were less well protected from cost burdens arising from acute illness requiring OP care.

Figure 5.12: Mean financial cost burden by type of illness and income group



5.7 The complexity of cost burdens and their distribution over time

This section describes two additional characteristics of illness costs identified by case study methods that are relevant to ability to pay, and which cannot be easily captured through household survey methods. In so doing it therefore highlights a methodological point relevant to ability to pay studies, namely that longitudinal case study data can enrich household survey data in two main ways:

- a case study method can capture the complexity of illness costs because it focuses on a limited number of households (in this case 16), and is able to elicit more detailed (and potentially more accurate) cost information;
- a longitudinal case study method (in this case over 8 months) is able to measure whether and to what extent illness costs and burdens vary over time.

A key finding from the longitudinal data was that illness costs and cost burdens fluctuated considerably from month to month, and that the lumpy nature of illness costs was an important factor influencing household ability to manage them. The household survey was unable to capture these lumpy cost patterns, and instead smoothed out variations in cost burden over time.

5.7.1 The complex nature of illness costs

Use of several providers and multiple cost sources

The case study methodology allowed better rapport to develop between the researcher and respondent, better understanding of a household's illnesses and usual treatment seeking behaviour patterns, and enabled longer and less structured interviews. This allowed collection of more detailed and potentially more accurate cost data in complex illness situations, for example: when several household members had been ill and each person had adopted a sequence of treatment responses; or when a person took a long time to recover from illness and used multiple providers over an extended period.

One of several incidents during the case study research that illustrates this point was the case of Nimal's knee injury (Case study box 5.6).

**Case study box 5.6 : Use of several providers and multiple cost sources
Nimal's knee injury**

Nimal and his wife live in a small wooden house in the Arunodaya area of Obe. Nimal (aged 50) had an accident in the fourth month of the study, when he slipped on a wet stone on the way to the public tap behind his house and badly injured his knee. The knee injury was complicated by the fact that he suffers from a serious disease of the bone marrow called aplastic anaemia (see Table 5.5), which meant the injury took a long time to heal and his leg became swollen and painful. A complex treatment strategy was adopted in response to this serious leg injury:

1. On the day of the injury he went to Accident and Emergency at the General Hospital. They took an x-ray, put the leg in plaster and admitted him to the accident ward, but there were no beds available and he said he could not sleep on the floor so he discharged himself and returned home.
2. The following day his leg was very swollen and painful and a friend recommended a private Ayurvedic practitioner who was good with bones or fractures. Over the next 3 days he visited this doctor three times and had to pay for consultations, ayurvedic medicine and transport (3 wheeler).
3. The leg did not improve, so he then tried a different private ayurvedic practitioner also recommended to him (*"by this time I was desperate and took advice about any doctor who might help me"*). Over the next 4 days he visited the doctor 3 times. This doctor lived closer to home, so transport costs were lower but still high, and again he had to pay for consultations and a variety of medicines, some of which he had to go and buy himself from the ayurvedic pharmacy.
4. By this time Nimal looked very ill, was having breathing problems and found it difficult to eat. He was admitted to the main government Ayurvedic hospital, which is close to his home, and stayed there for two weeks. His wife brought him special foods each day. After 2 weeks his leg had not improved and he felt terrible so he discharged himself.
5. Nimal was desperate at this stage so went to see a private (western) specialist at one of the main private hospitals in Colombo (Asiri), and then at a different private hospital (Central). He incurred costs for transport, consultations, tests and drugs.
6. Finally, he returned to where treatment had started at the government General Hospital and stayed there for 2 weeks, where he recovered. Every day his wife took the bus to visit him and brought food and sometimes medicine.

The financial costs arising from this injury were incurred for a multitude of goods and services, extended over 7–8 weeks (6 December – 26 January) and were difficult to measure. Even after 3 detailed interviews it was doubtful whether all costs, often incurred on a daily basis for items such as transport and special foods, had been picked up. But after piecing together these items Table 5.17 summarises the costs that were captured.

Hidden financial costs related to illness

The case study research often encountered illness-related costs that are less likely to be picked up by a household survey unless carefully designed and implemented. For example households spent money on religious and ritual-based therapies for illness, but were often unwilling or embarrassed to mention these costs until trust and rapport had been developed. For example the research identified spending on the services of exorcists (*adura*) to treat people with conditions arising from malign influences and demonic possession, such as psychological problems or children with persistent fever. People also visited temples when a family member was sick and performed puja to seek

religious therapy, which required spending on special fruits and also cash donations. They also made vows to a god (*bara wenewa*), promising a material or financial offering in the future if the sick person recovered.

Table 5.17: Summary of financial costs for treating Nimal's leg injury

Response	Drugs & consult.	Tests	Transport	Total
General Hospital Accident & Emergency ^a	0	0	0	0
Private Ayurvedic doctor (3 times)	525	0	600	1125 (20.4%)
Private Ayurvedic doctor (3 times)	300	0	300	600 (10.9%)
Government Ayurvedic hospital ^b	0	0	0	0
Private hospital OP department (twice)	2360	300	630	3290 (59.7%)
General Hospital	272	0	220	492 (8.9%)
TOTAL	3457 (62.8%)	300 (5.4%)	1750 (31.8%)	5507 (100.0%)

^a Nimal was taken to the government hospital by a friend and incurred no costs for this visit.

^b the government Ayurvedic hospital is in Obe so Nimal's wife could walk to visit him in hospital with no cost.

In addition to financial costs associated with magico-religious rituals, costs can also stem from social obligations of visiting the sick. The case of Geetha provides an example of this type of financial cost (and again the complex nature of treatment seeking and costs), when in months 6 and 7 she was admitted to hospital for a hysterectomy operation, and was then diagnosed as a diabetic and admitted to hospital again (see Box 5.7).

Case study box 5.7: Hidden illness-related costs The case of Geetha

For her hysterectomy operation Geetha first consulted a government specialist working at a private clinic, who then 'channelled' her to be admitted to the government hospital department where he worked. After the operation her diabetes was diagnosed and she went back to the same clinic to see a diabetic specialist for advice, and was again 'channelled' to this specialist's department in the government hospital for an assessment of her diabetes and for a post-operative check.

For these two medical conditions Geetha's treatment strategy lasted for one month, and included two admissions to the South Colombo government general hospital (Kalubovila) which provided free consultations with specialist doctors, free blood and urine tests, and free drugs such as powerful antibiotics following her operation.

The main cost item for Geetha over these two months was neither for medical nor transport items, but arose because after being discharged from hospital a large number of friends and relatives descended on her house over several days to visit her, and she had to spend Rs.3000 on food and drink to feed them all. This accounted for 56.4% of costs related to her hysterectomy and diabetes (Table 5.18).

Table 5.18: Breakdown of financial costs for Geetha's hysterectomy and diabetes

Response	Drugs & consult.	Tests	Transp.	Other (food)	Total
Private clinic (channelling centre) for womb problem	545	0	0		545 (10.3%)
Admitted to government hospital for 8 days: tests, hysterectomy	0	0	1100	3000	4100 (77.1%)
Private clinic (channelling centre) for advice on diabetes	335	50	150	0	535 (10.1%)
Admitted to government general hospital for assessment of diabetes	0	0	85	0	85 (1.6%)
Pharmacy – tablets for diabetes	50	0	0	0	50 (0.9%)
TOTAL	930 (17.5%)	50 (0.1)	1335 (25.1%)	3000 (56.4%)	5315 (100.0%)

5.7.2 Lumpiness of costs over time

Illness costs and cost burdens for all case study households fluctuated from month to month, and for most households high cost burdens were concentrated into one or two days or months. Even cost burdens expressed as a monthly figure smooth over high illness cost burdens incurred on a particular day, particularly for those on daily wages, because a visit to a doctor can incur costs equal to a day's wage.

In particular survey data may conceal the lumpy nature of hospital IP care costs. In sections 5.4 and 5.5, household IP costs are expressed per month, but to arrive at this figure hospital IP cost data were collected for the whole year and divided by 12. Median financial cost per month per household was only Rs.12.5 per month (mean was Rs.121), but the median cost for the year was Rs.150 (mean was Rs.1457) and these actual costs would have been concentrated on a particular day or week.

Lumpy financial cost burdens

Several case study households had a high financial cost burden per month if an average over the eight months was calculated (see Chapter 6), for example Nimal (132.6% per month), Geetha (31.1%) and Pushpa (8.1%). But households with high financial cost burdens also faced lumpy financial costs, concentrated into one or two months, as illustrated by the cases of Nimal and Geetha in Figure 5.13 (see Boxes 5.7 and 5.8 for details of these costs).

Figure 5.13: Lumpy financial illness costs over time

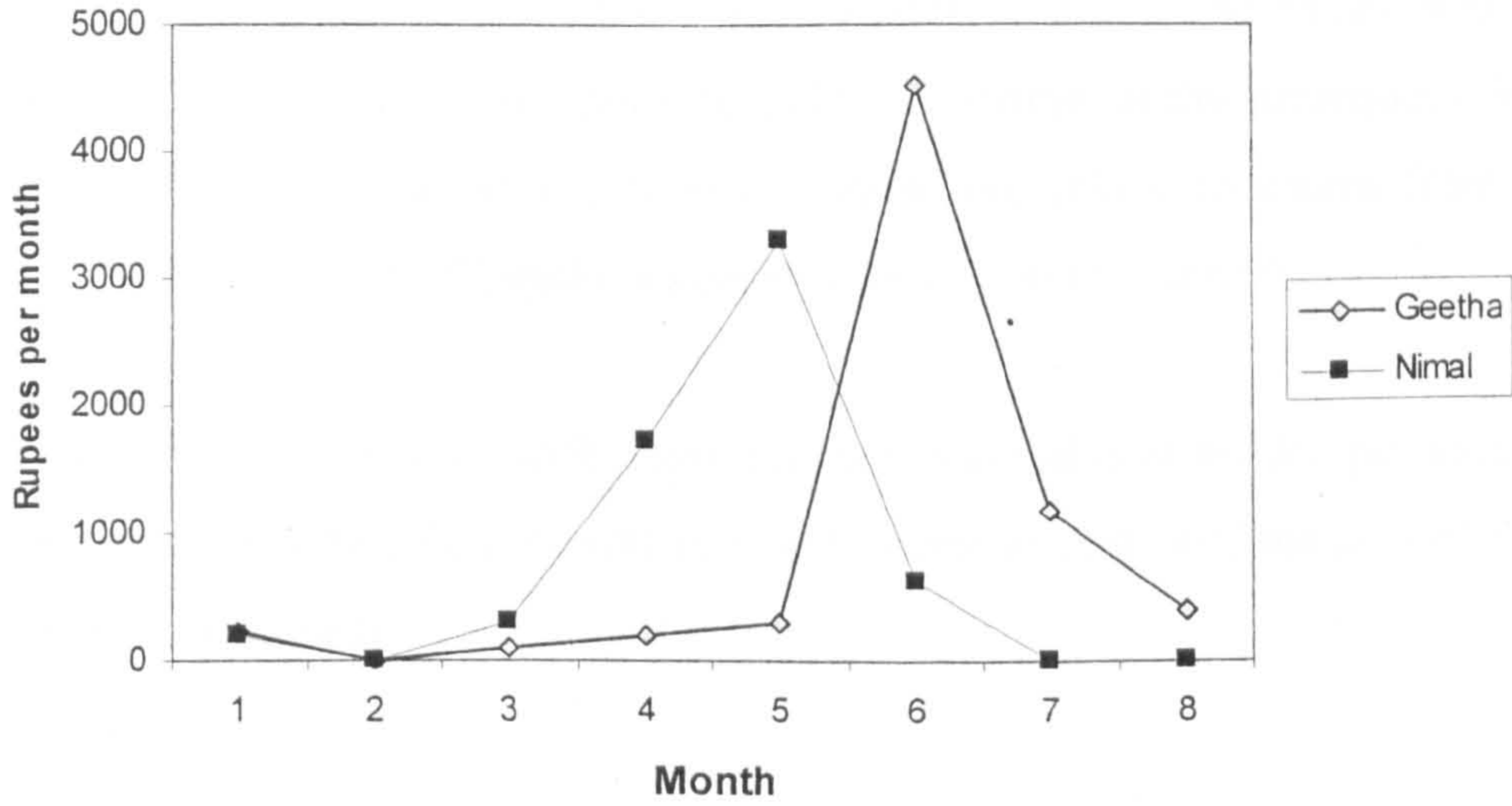
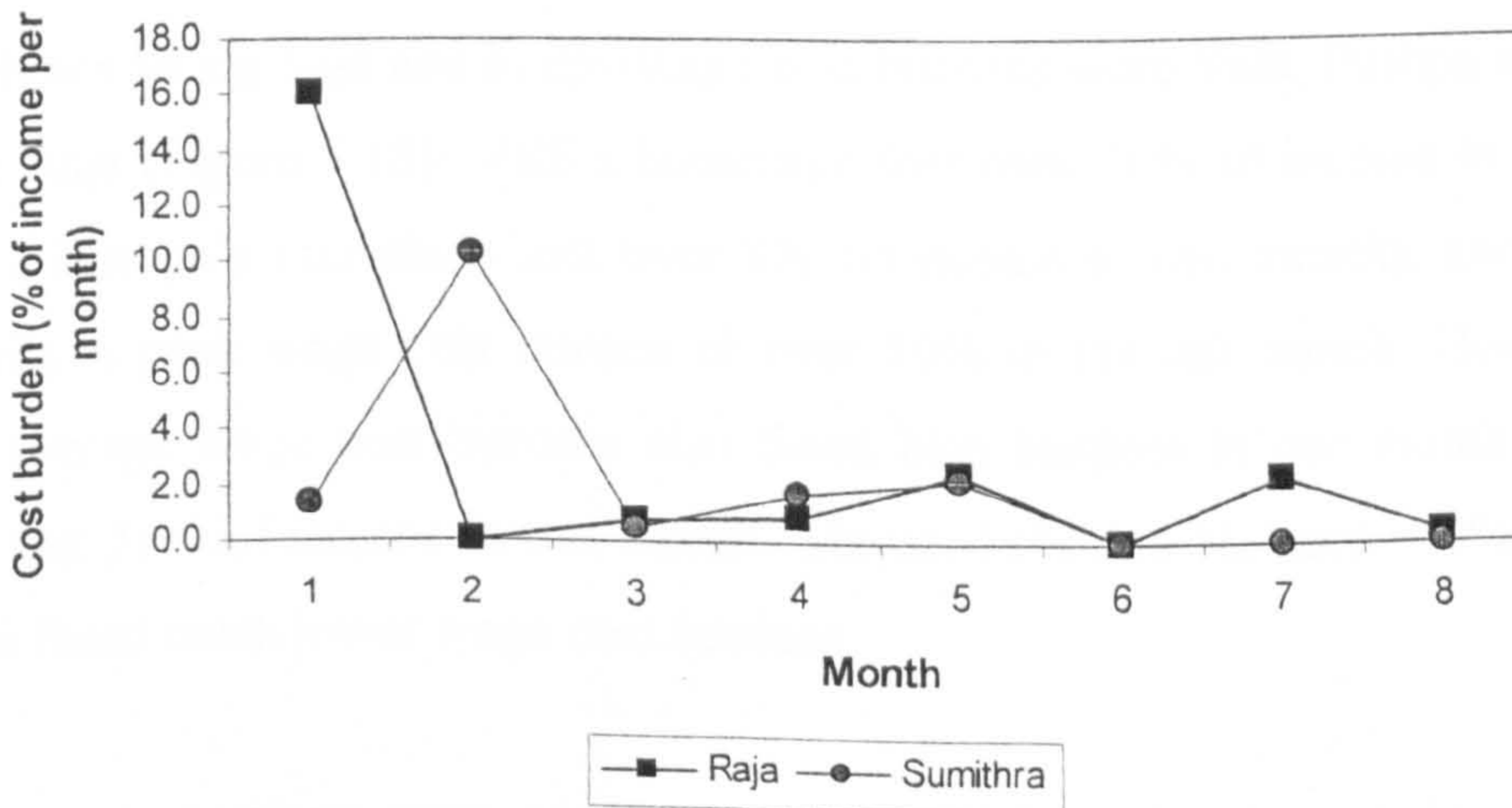


Figure 5.14: Lumpy financial illness cost burdens over time



Nimal and his wife had no source of income except government welfare and gifts from relatives, so the high financial costs shown in months 4, 5 and 6 translated into financial cost burdens of 863%, 940% and 55% respectively. At this time Nimal and his wife had to make substantial claims on their social networks (see Chapter 9). For Geetha high spending on illness in months 6, 7 and 8 also translated into high financial cost burdens in those months. In month 6 when she had a hysterectomy operation and was diagnosed as diabetic the financial cost burden was 141% of income; in the subsequent two months it remained high at 47%. At this time the household relied on claims from her social networks and used most of Geetha's savings (see Chapters 7 and 9).

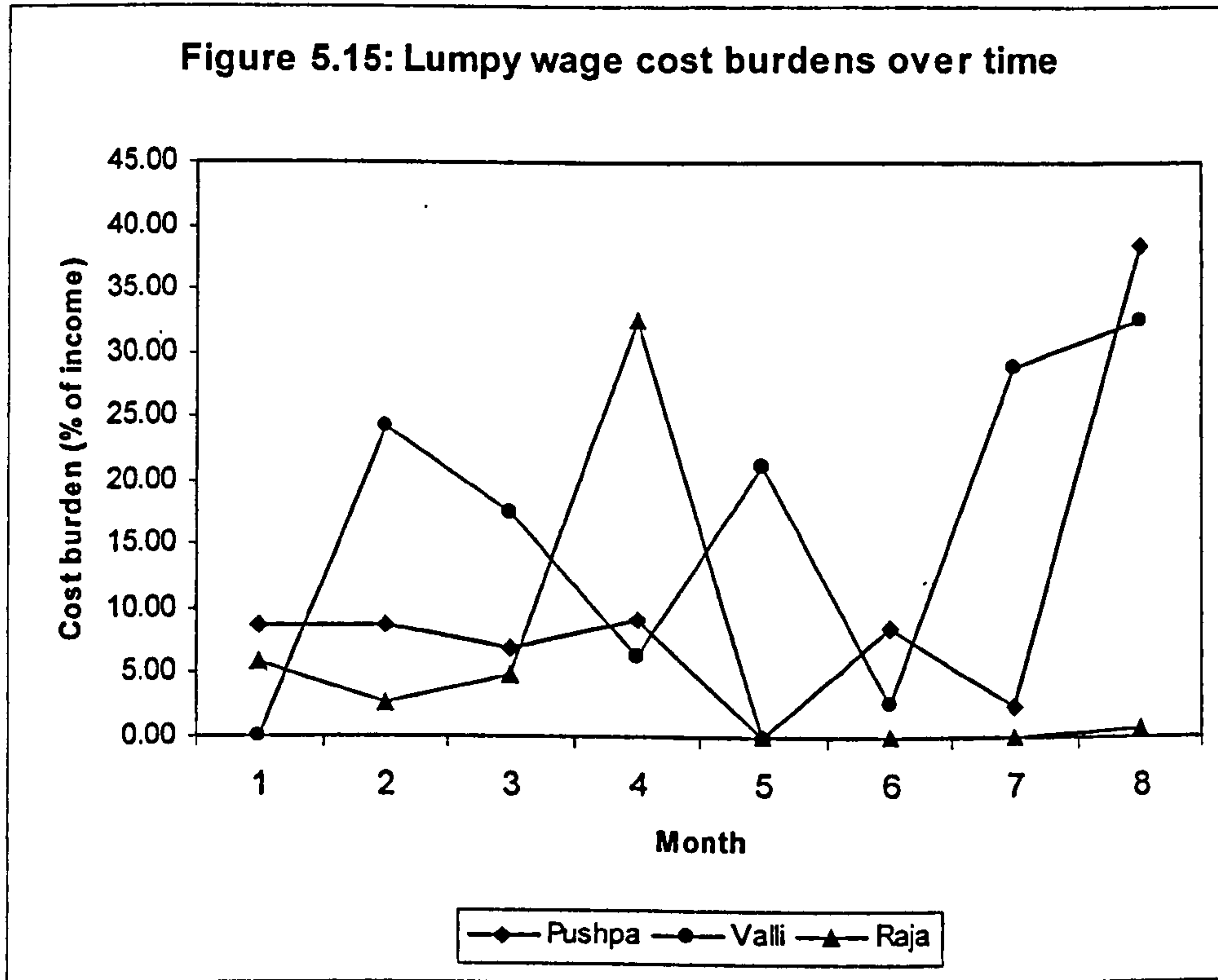
Some case study households with a low average financial cost burden per month over an eight month period also had months in which financial cost burdens peaked (see Figure 5.14 for two examples).

Lumpy wage costs

Households also had to deal with wage losses due to illness that were concentrated in one or two months, for example Kumudu's household lost 29% of income in the first month due to her father's cataract operation, but no wages were lost due to illness in the subsequent 7 months.

Households facing high and lumpy wage cost burdens were Valli, Pushpa and to a lesser degree Raja (Figure 5.15): Valli's household lost over 20% of income in four different months; Pushpa's household lost over 8% of income in five months; and both had to deal with a peak wage cost burden of over 30% in the last month. Households with lower average wage cost burdens also faced high burdens in one month, for example Amali lost 31% of income in one month, Mayori 11% and Nishanthi 10%, but in other months faced much lower wage cost burdens.

Because cost burdens were concentrated into high peaks, households faced greater difficulties in managing costs.



5.8 Overview of coping strategies

5.8.1 Cost prevention strategies

When a respondent reported illness, but no treatment was used, they were asked the reason for not seeking care. Deterrence due to lack of money was rarely explicitly cited as a reason for not seeking care:

- * 10 out of 266 individuals (3.8%) did not seek care for acute illness (see Table 5.9), and all stated this was because the illness was “not serious”. Lack of cash was never explicitly given as a reason for not seeking acute OP care, although people’s lack of cash may have influenced their decision to deem the illness ‘not serious enough’ for treatment.
- * 148 out of 342 individuals reporting a chronic condition did not seek regular care, and the majority stated this was because the condition was “not serious” (60%) or there was “no effective treatment available” for the condition (20%). Again only a minority stated they were deterred by cost barriers: 11 people (7.4%) said they had no time to seek regular care, and 5 people (3.4%) said they did not have enough money (3 from the poorest group of households and 2 from the second poorest group).
- * nobody stated they had been deterred from seeking hospital admission due to lack of cash or time.

Thus, unlike the experience reported in sub Saharan Africa (see Chapter 2), lack of cash was not identified as a significant factor deterring treatment. If households did lack cash for treatment the preferred coping strategy was to obtain cash to pay for care rather than not seek care at all: people preferred to manage costs rather than prevent them in the case of illness, which suggests treatment of illness is a high priority.

5.8.2 Cost management strategies

Respondents were asked if they had enough money close to hand or in the household to pay for the expenses they incurred when seeking treatment. Table 5.19 shows the number and percentage of households that had a member who sought care and did not have cash available to pay for treatment. Cash availability problems were highest for hospital IP care (47%), probably because although hospital costs per month were low, all costs for a year would have been concentrated at one time and caused payment problems (as noted at the start of section 5.6.2). Although acute OP care incurred higher

financial costs per household, the costs incurred for many cases would probably have been more easily met through cash at hand (especially for the cheap option of self treatment).

Table 5.19: Cash availability within the household to pay for care (no. of households)

Type of illness	Was there enough cash to hand to pay for care?			Total
	Yes	No	Don't know	
Chronic care	95 (60.6%)	58 (37.4%)	3 (1.9%)	155 (100.0%)
Acute OP care	141 (67.1%)	69 (32.9%)	0 (0.0%)	210 (100.0%)
Hospital IP care	69 (51.5%)	63 (47.0%)	2 (1.5%)	134 (100.0%)

Source: Household survey (March / April 1998)

Cash availability problems were most common among the poorest household income group (Table 5.20), particularly for acute OP care: 41% of households that lacked cash for this care came from the poorest group.

Table 5.20: Lack of cash to pay for care by income group

Type of illness	Households with no cash to pay for care				
	Income quartile group				Total
	1	2	3	4	
Chronic care	18 (31%)	13 (22%)	15 (26%)	12 (21%)	58 (100.0%)
Acute OP care	28 (41%)	14 (20%)	18 (26%)	9 (13%)	69 (100.0%)
Hospital IP care	22 (35%)	19 (30%)	12 (19%)	10 (16%)	63 (100.0%)

Source: Household survey (March / April 1998)

If respondents stated they lacked cash to pay for care they were asked how they obtained money or managed these costs. Table 5.21 indicates that financial help from relatives, borrowing from a variety of sources, and pawning jewellery were the most common cost management strategies used by households facing payment difficulties.

Whether these responses had adverse effects on household livelihoods in the medium term could not be evaluated using the survey instrument. The potentially highest risk strategies were delaying treatment, borrowing from a moneylender at high interest, pawning assets such as jewellery, and reducing food consumption. The proportion of households using these potentially risky strategies to help finance hospital IP care,

chronic care and acute OP care was 21%, 24% and 15% respectively, but no conclusions about their impact can be drawn. They may have been short term or small scale strategies with no significant adverse effects. The impact of cost burdens and coping strategies on household livelihoods is examined in more detail in Chapters 6–9 using the longitudinal case study data.

Table 5.21: Household cost management strategies

Coping strategy	No. of households using the strategy to cope with costs of:		
	Hospital IP care	Chronic care	Acute OP care
Change treatment			
Stop treatment	0	0	0
Delay treatment	0	3 (5%)	4 (6%)
Use cheaper provider	0	1 (2%)	0
Financial help / credit			
Help (gift) from relative	25 (40%)	28 (48%)	32 (46%)
Borrow from relative	11 (18%)	6 (10%)	17 (25%)
Borrow from friend / neighbour	12 (19%)	16 (27%)	11 (16%)
Borrow from moneylender	5 (8%)	6 (10%)	2 (3%)
Help / borrow from employer	2 (3%)	5 (9%)	1 (1%)
Borrow from work colleague	2 (3%)	1 (2%)	2 (3%)
Credit from shop	0	2 (3%)	6 (9%)
Use stores – pawn jewellery	6 (10%)	5 (9%)	4 (6%)
Reduce spending – on food	2 (3%)	0	0
Other	1 (2%)	1 (2%)	0
Don't know	3 (5%)	0	0
TOTAL^a	63 (111%)	74 (127%)	79 (115%)

^a totals add up to more than 100% because some households cited more than one response

Source: Household survey (March / April 1998)

5.9 Summary and conclusion

This chapter has presented a broad profile of illness, treatment seeking behaviour, illness costs and coping strategies in the two communities, focusing in particular on the level and distribution of household illness cost burdens in the two areas. It therefore covered several variables relevant to ATP that were set out in the conceptual framework in Figure 1.2. This analysis of several variables using community-wide data provides the context and foundation for more in-depth analysis of particular variables and case study households in subsequent chapters. This section summarises the main findings and the way these feed into subsequent chapters.

Illness was not distributed evenly across households, and was concentrated in households with elderly or young members.

Median total illness cost burdens across all households were relatively low. Among households that sought treatment (n=323), the median total illness cost burden was 2.7% of income per month, indicating that at least 50% of households that sought care did not incur a high cost burden. This informs analysis in Chapter 8, which examines in more detail whether free public health care provision protects households from high illness costs. It also informs the conclusion in Chapter 10 that the health system protects the majority of households from high illness cost burdens. However the mean total cost burden was much higher at 11.0% (financial cost burden 6.5%, wage cost burden 4.5%), which suggests some households fall outside the protection offered by the public system.

Average household illness cost burdens were higher for acute OP care than chronic care or hospital IP care. This is because more people used private providers than public providers for acute OP care. In contrast for regular treatment of chronic conditions or hospital IP care more people went to public providers. This finding informs analysis in Chapter 8, which examines how free public provision for treatment of chronic illness or hospital IP care protects households from high illness costs and damaging borrowing or asset strategies.

The distribution of illness cost burdens was highly uneven among households: 65% of households that sought care faced a total cost burden of 5% or less; but a large minority of 19% faced a total illness cost burden over 10%. These data on the distribution of illness costs across all households in the two communities inform analysis of case study household illness cost burdens in Chapter 6, because they can be ‘nested’ within the wider distribution to assess whether their illness cost burdens are low, medium or high relative to other households in the community. The data also inform an overall thesis conclusion in Chapter 10, that high illness costs burdens exist in Sri Lanka despite free public health care provision, and these potentially damaging burdens are experienced by a significant minority of households.

Free care at public hospitals protected the majority of households against high financial cost burdens for IP care: the majority of households (82.1%) with a member

admitted to hospital faced a financial cost burden of less than 1% of income per month. Notably the median total cost burden for hospital IP care was only 0.69%. These data provide a context for more detailed analysis of the way free public IP care protects people from potentially catastrophic illness costs (see Chapter 8).

Illness costs and cost burdens are lumpy over time. The longitudinal case study data showed that illness costs and cost burdens fluctuated considerably from month to month, coming in peaks that make it harder for households to manage cost burdens. Chapter 7 examines the implications of these lumpy illness cost burdens for household budgets.

Lack of cash was not a significant factor deterring treatment. The proportion of cases deterred from seeking medical care due to financial or time cost barriers was very low (3.8% for acute OP care and 4.7% for regular treatment of chronic illness). Nobody stated they had been deterred from seeking hospital admission due to lack of cash or time.

If households lacked cash their priority was to seek treatment and adopt cost management strategies. The main strategies adopted to obtain cash were to ask a relative for help, borrow money or pawn jewellery. These social and material assets are likely to be important factors mediating households' ability to obtain cash and manage illness costs, and are examined in more detail in subsequent chapters. Chapter 7 analyses how households' access to and use of material assets influences ability to pay for health care. Chapter 9 analyses households' social asset endowments and how these mediate access to resources and ATP.

People's preference to manage illness costs, rather than avoid them, suggests illness costs have implications for household debt levels and assets. The survey data suggest that when people lack money their preference is to seek treatment and manage the illness costs incurred, rather than avoid them. Borrowing or pawning strategies are likely to have implications for households. The implications of these strategies over 8 months are reviewed for case study households in Chapter 6, and re-visited in Chapters 7, 8 and 9 which present data on household asset strategies. The priority given to cost management also informs the conclusions in Chapter 10, since it suggests that ATP is more complex than WTP.

Chapter 6: Illness cost burdens and changes to household livelihoods

6.1 Introduction

This chapter traces the links between illness cost burdens and changes to household livelihoods, using data from the 16 case study households. The chapter therefore addresses objective 3 (Box 1.1) by evaluating the impact of illness cost burdens and coping strategies on household assets, income and expenditure patterns in the medium term. It answers three main questions:

- how did illness costs influence households' economic development and livelihood situations in earlier periods, and therefore how did illness influence livelihoods at the point when research started (section 6.2)?;
- what were the illness cost burdens experienced by case study households over the 8 month research period, and what were the main links between these cost burdens and the livelihood changes experienced by case study households over 8 months (section 6.3)?;
- what were the main processes or mechanisms that led to livelihood decline, stability or improvement, and what role did illness costs play in these changes (section 6.4)?

Referring back to the conceptual framework in Chapter 1, this chapter preempts a detailed analysis of treatment or cost management strategies (Chapters 7, 8 and 9), to consider the overall impact of illness cost burdens and cost management strategies on case study household livelihoods. In other words it has followed the logic of the framework round to its end point to look at how all the variables in the framework have fed through to influence livelihoods (see Figure 1.2 in Chapter 1).

An assessment of the implications of illness cost burdens and coping strategies for livelihoods at this stage of the thesis is critical to the study. It establishes which households' livelihoods declined, remained stable, or improved over the 8 month research period. This provides an important foundation for subsequent analysis of the factors that mediated these livelihood impacts, with respect to material assets (Chapter 7), the health system (Chapter 8), and social assets (Chapter 9).

The asset framework used to evaluate livelihood change was described and justified in Chapter 3. It basically involves comparison of a household's assets over a given time period, primarily human capital (number of workers, work security), physical capital (for example housing), financial capital and stores (savings, jewellery), levels of debt, income patterns, and expenditure and consumption patterns. It then examines to what extent illness cost burdens caused these asset, income and debt patterns to change.

Analysis of the links between illness costs and livelihood change is undertaken for two different periods. Firstly, section 6.2 analyses how illness costs influenced households' livelihoods and vulnerability before the point when research started in July 1988. This retrospective analysis is important because a household's vulnerability or robustness before the research started will have been a key factor influencing its ability to manage illness costs over the 8 month research period. Secondly, sections 6.3 and 6.4 assess the links between illness cost burdens over the 8 month research period and the livelihood changes experienced by households over these 8 months.

6.2 Household livelihood situations at the start of research: illness and impoverishment (and health and improvement)

Chapter 4 described case study household livelihoods, in terms of different types of asset and income levels, and placed them on a spectrum of vulnerability or robustness when case study research started in July 1998 (Figure 6.1).

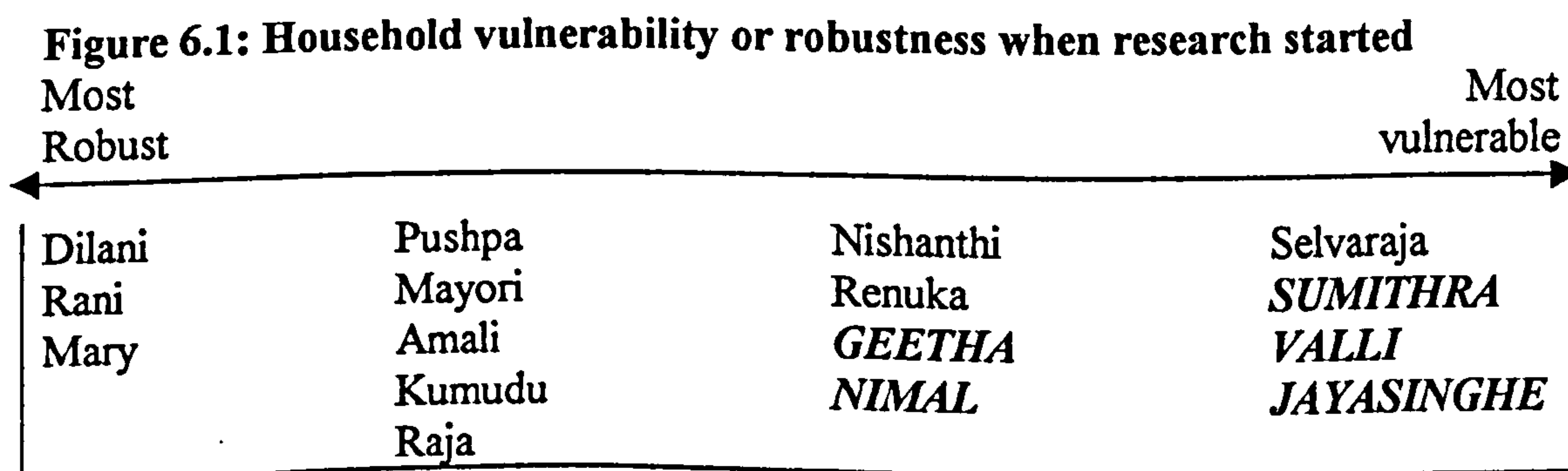


Figure 6.1 also highlights (bold italics) households that were in a vulnerable livelihood situation *due to previous illness experiences*, and this section provides a retrospective overview of the impact of illness cost burdens on these households' impoverishment. Table 6.1 provides basic information about these households. Households for which

chronic or crisis illness had been the main cause of impoverishment are shaded in the Table and described in Boxes 6.1 and 6.2. In these three households high direct or indirect illness cost burdens had caused households to deplete financial stores such as jewellery, sell other assets, and in some cases become heavily indebted. As a result these households were highly vulnerable when research started, with depleted financial stores and / or high and accumulating debts.

Table 6.1: Households impoverished and / or made vulnerable due to serious illness before research started

Household (member)	Type of illness	Effects on household	see Box
Nimal (Nimal)	chronic illness: aplastic anaemia	long term inability to work permanent income decline asset depletion	6.1
Jayasinghe (Jayasinghe)	chronic illness: tumors on intestine	long term inability to work permanent income decline asset depletion	6.1
Sumithra (son 3, son 4, husband)	serious accidents	high financial cost burdens asset depletion heavy debt burden	6.2
Valli (Valli)	chronic illness: arthritis	loss of well paid and secure job frequent inability to work and loss of income from subsequent jobs	6.3
Geetha (Geetha)	long term womb problem	she cannot work so household dependent on husband's very low and unreliable daily wages	6.4

Note: shading denotes households for which illness had been the main cause of impoverishment.

In the case of Valli the relationship between ill-health and impoverishment was less direct because numerous events and processes had shaped the household's decline in addition to chronic illness (case study box 6.3). Geetha's household was an example in which illness had reduced income but not yet affected consumption or asset levels, and the household was vulnerable for the future (Geetha – see case study box 6.4).

Case study box 6.1: Chronic illness and impoverishment

The case of Nimal

As a direct result of his illness Nimal's household has undergone the most extreme decline from a position of relative wealth to extreme poverty. Before a road accident in 1994 Nihal was earning a good salary and owned two three wheeler vehicles which he hired out for additional income.

He described the accident as *"the worst experience of my life and the beginning of our financial problems and difficult life we face today"*. He was admitted to hospital for one month where they took many x-rays. Although his broken bones began to heal he became very sick and at the end of the year doctors diagnosed a disease of the bone marrow called 'aplastic anaemia', which Nimal believes was caused by the x-rays.

Since 1994 Nimal has not been able to work, and he needs to raise a substantial sum of money to finance a bone marrow transplant which needs to be done privately in India because the Sri Lankan health system (public or private) cannot provide it. When research started he and his wife had already gone through a sequence of asset strategies which had left them impoverished and vulnerable:

- sold his brick house and moved to a small wooden house
- sold productive assets – the two three wheelers
- used all savings
- pawned all wife's jewellery worth Rs.20,000 (£200), plus some friends jewellery.

Fortunately the household has strong social networks (see Chapter 9), and although the couple do not earn money they eat well (meat every day as recommended by doctors). They rely on gifts of food and money from Nimal's daughter, and in particular from his wife's younger sister in Matale (about 3.5 hours travel away) whose husband runs a successful business.

The case of Jayasinghe

In 1995 tests at the general hospital revealed a tumor on Jayasinghe's lower intestine. Following an operation at the government hospital he was told not to work and to go to Maharagama cancer hospital every month, which he did for a year, where they gave him injections and took blood samples for tests. He stopped regular treatment after a year and began working again at a private assembly company, but in 1997 he became sick again and had to have a second operation at the Maharagama hospital, where he stayed for 6 weeks.

By the time he left hospital the household had pawned most of its jewellery, borrowed Rs.3000 from a money lender at 20% interest per month, and Jayasinghe had lost his job with no prospect of returning to manual work with his condition:

"It was the second operation that really cost a lot. We spent money and I lost my job. Since then we have been very poor".

When the research started about 7 months later in July 1998 the household's income was much lower, his mother and sister had not redeemed jewellery, and they still owed Rs.3000 to the moneylender, paying Rs.600 per month in interest.

Case study box 6.2: Crisis illness and impoverishment

The case of Sumithra

When research started Sumithra's household had already sold assets and was heavily indebted due to serious illness and high illness costs. Three serious accidents had struck the household and incurred high illness costs:

1. In 1983 the third son drank kerosene when he was a young boy. The government hospital said they could not save the baby so Sumithra took him to a private doctor. In total the household incurred financial costs of Rs.20,000, financed by:
 - selling saris
 - taking Rs.20,000 from Sumithra's elder brother, in exchange for 75% of their land plot.
2. In 1996 the fourth son suffered a serious leg fracture in a road accident. The government hospital said they could not fix the bone so they went to a private Ayurvedic fracture specialist. In total the household incurred financial costs of Rs.30,000, financed by:
 - pawning jewellery
 - borrowing Rs.30,000 from the bank where the husband works.
3. In 1997 Sumithra's husband suffered serious (life-threatening) burns. Financial costs of Rs.30,000 and wage costs of Rs.12,000 were financed by:
 - a distress loan of Rs.38,000 from bank
 - borrowing Rs.12,000 from friends
 - the 2 son's were forced to leave school to find a job
 - borrowing Rs.5,000 from local shops (food on credit)
 - pawning last saris, the cassette player and the TV (for which they were still paying a monthly hire purchase bill).

When research started Sumithra's household had depleted financial stores, sold assets and had debts of about Rs.80,000 due to illness, in addition to other large debts at the bank. The husband's job at the bank had made the household relatively robust against adversity through cheap and extensive credit facilities, but critical incidents, combined with costly treatment strategies and heavy borrowing had pulled the household into decline.

Case study box 6.3: Illness combined with other contingencies causes impoverishment: the case of Valli

Both illness and financial contingencies linked to legal costs had struck this household. In 1995 Valli had been forced to give up a well paid and permanent cleaning job for an international NGO (Save the Children Fund) because of her arthritis. Her knee had been badly affected, preventing her from standing for long periods of time or climbing the stairs. This caused a big drop in income, and even though she started daily housework elsewhere the wages were much lower and the loss of a *secure* monthly income was a blow to their livelihood.

Then in 1997 Valli's second son (who did not live with them) was arrested for not possessing an ID card, and later the police accused him of selling heroin. The authorities held the son in remand for two weeks until they paid a bail of Rs.15,000. The lawyer representing them agreed to lend them the money for the bail and for early consultations (Rs.15,000 at 15% interest per month). Krishna had to guarantee the

Case study box 6.3 continued....

loan by agreeing to hand over his house and land if payment was not forthcoming, effectively 'mortgaging' the house.

A few months later in April 1998 the local police came to his house and found the husband drinking arrack (coconut whisky). They accused him of selling arrack without a license, he was arrested, and charged a Rs.15,000 fine. He could only pay Rs.7500 so was held in prison for 1 month, and as a result lost his job as a cleaner. He was then released on condition he would pay the other Rs.7500, but he refused to pay because he claimed he was innocent. His court case was pending when research began and every month he had to see his lawyer who was charging Rs.100 or Rs.200 a time (*"the lawyers are taking our money"*).

In the months preceding research Valli continued to suffer from aches and pains and had regularly to take days off work, imposing additional illness (wage) cost burdens on the household's already stretched budget. Due to these past illness and legal events, and the continuing burden of illness and legal costs, the household had adopted asset and borrowing strategies which had left it impoverished and vulnerable at the time research began:

- a debt burden that was accumulating at a rate of Rs.2250 per month due to interest, coupled with fear of eviction
- pawned nearly all jewellery
- reduced food consumption: *"not enough food to fill our stomachs – we only eat one meal per day"*.

Case study box 6.4: Assets delay but cannot prevent the impact of illness on livelihoods: the case of Geetha

Geetha's household's livelihood had improved because she had worked abroad twice in Taiwan (1988–91; 1992–96). They had used her earnings to build the house, and buy furniture, electrical goods and clothing. They had also saved Rs.25,000.

Her womb problems began during her second visit to Taiwan, and she spent a lot of money on treatment before she came home in 1996, which substantially reduced the amount available to the household for investment or saving. When she returned she was still suffering from heavy bleeding and could not take a job in domestic service.

In 1997 she saw a doctor and had an operation (3rd "cleaning") at Kalubovila General Hospital, and then took medicine for 3 months but after 6 months the problem returned (blood clots). She said it stops if she rests totally *"but I need to work otherwise we cannot live"*. When research started they were dependent on the husband's job as a helper in a kitchen but he was paid only Rs.100 per day and work was unreliable: *"If he does not work we have no money; we get bread in the morning, and some rice and that's it"*.

Geetha's household was vulnerable when research started and was increasingly relying on the savings. When research started Geetha stated:

"we have our house but I am worried about the future – we need more money so I am thinking of going abroad again, when I sort this problem out... My husband gets Rs.700 per week plus some tips, but this is not enough, (it is) difficult to manage daily expenses with my husband's salary... I need to work otherwise we cannot live"

Just as ill-health had caused impoverishment in some cases, so good health had been a factor enabling household economic development in other cases. Features of robust households' earlier livelihood development, for example increased job security and investment in assets, were described in Chapter 4. A common experience of these households was their good health, or at least no chronic or acute illness catastrophic enough to trigger job loss or asset depletion. Lack of illness, particularly among breadwinners, or the capacity to treat it at low cost (for example through strong social networks), enabled these households to develop because:

- ability to work is their most important income-generating asset;
- low illness cost burdens release resources for other productive investments, for example education, housing or inputs for micro-enterprises.

6.3 Illness cost burdens and livelihood change over the eight month research period: an overview

This section sets out the main links between illness cost burdens and the livelihood changes experienced by case study households over 8 months. It first explains briefly which households' livelihoods were judged to have declined, remained stable or improved, and how this judgement was made. It then summarises case study household illness cost burdens over the 8 months, and sets out the main links between illness cost burden and livelihood change.

6.3.1 Categories of livelihood change used in the analysis

Over the 8 months changes to each household's asset portfolio were assessed, and a judgement made as to whether these asset changes represented an overall decline, stability or improvement of livelihood. For each household, six components of the asset framework set out in Chapter 3 (Table 3.9) were compared at the start and end of the research period using quantitative and qualitative data:

- human capital (e.g. the number of workers, job and income security);
- income (e.g. household income level);
- physical assets (e.g. sale of assets, investment in housing);
- financial assets (e.g. levels of saving or jewellery);
- debt levels (e.g. level and whether debt was for consumption or investment);

- expenditure and consumption (e.g. number of meals per day, any cuts to spending).

Table 6.2 shows the households that were classified as declined, stable or improved, and the changes to dimensions of livelihood that explain this classification.

Table 6.2: Categories of livelihood change over eight months

Declined	Stable	Improved
Jayasinghe Valli Sumithra Selvaraja	Nimal ^a Geetha Amali Raja Nishanthi Renuka Rani	Mayori Kumudu Pushpa Mary Dilani
Decline in 4 or more dimensions of livelihood, for example: <ul style="list-style-type: none"> • loss of income earner or work less secure • income decline • last items of jewellery pawned • increased debt due to financial stress • lasting cuts to food consumption or other essential areas such as education 	No change to at least 4 dimensions of livelihood. The two assets that usually changed were: <ul style="list-style-type: none"> • used financial stores or invested in financial stores • small increases or decreases in debt levels 	Improvement in 4 or more dimensions of livelihood, usually characterised by: <ul style="list-style-type: none"> • increased level or diversity of income flows • investment in physical assets (housing, electrical goods, business) • savings or investment in financial assets • low debt or debt for investment purposes

^a Nimal's household was placed in this group because its livelihood had not declined over the 8 months; there had been no further loss of work or income

More in-depth analysis of the livelihood changes that influenced these judgements is set out in section 6.4.

6.3.2 Illness cost burdens

Figure 6.2 shows average total cost burdens per month for the case study households, broken down by financial and wage cost burdens. Average burden per month was calculated by adding the illness cost burden for each month and dividing by eight. The average burden per month therefore smoothes out the lumpiness of cost burdens over time, but remains a useful indicator of the overall burden faced by households over the research period.

Figure 6.2: Average illness cost burden per month over the eight month research period

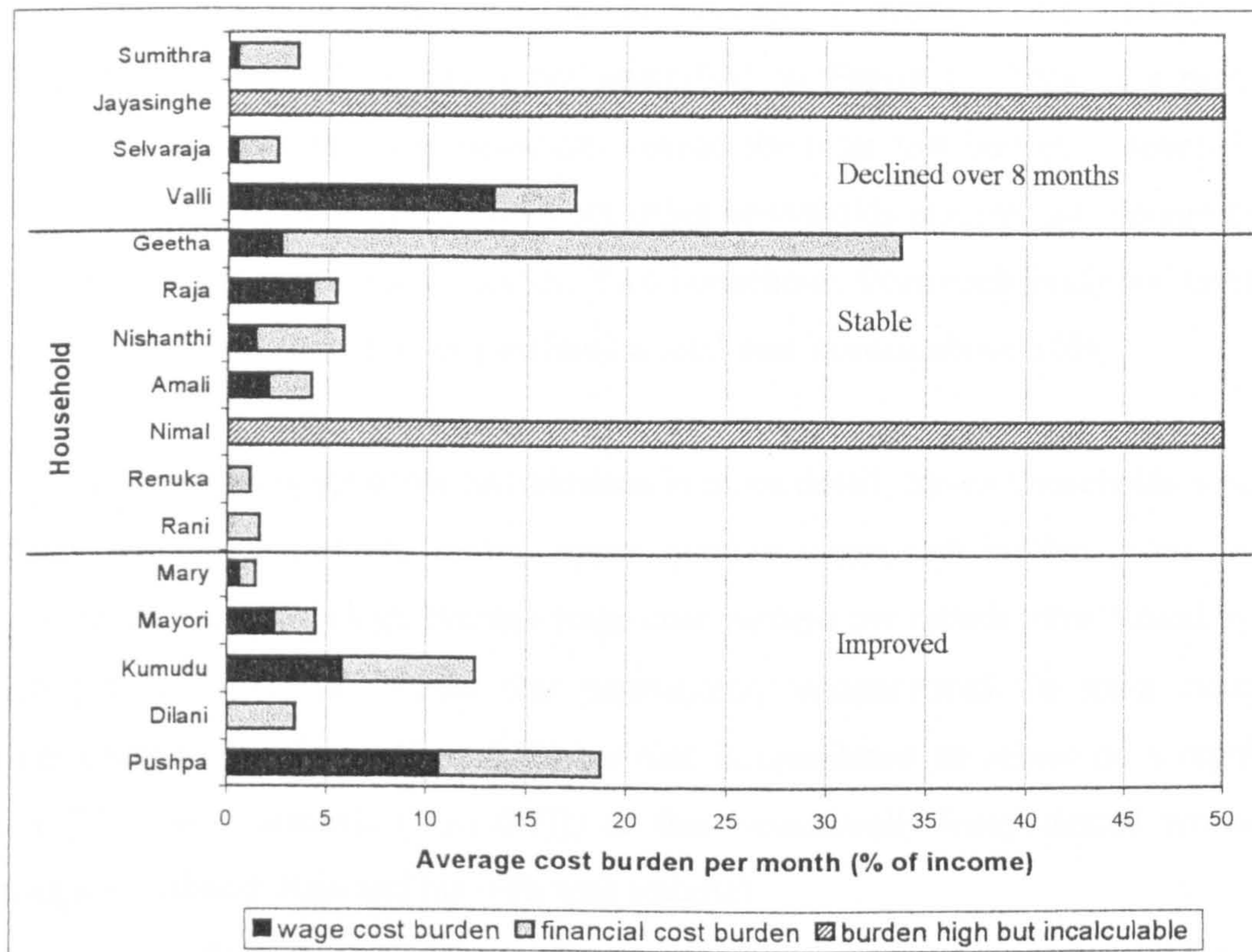
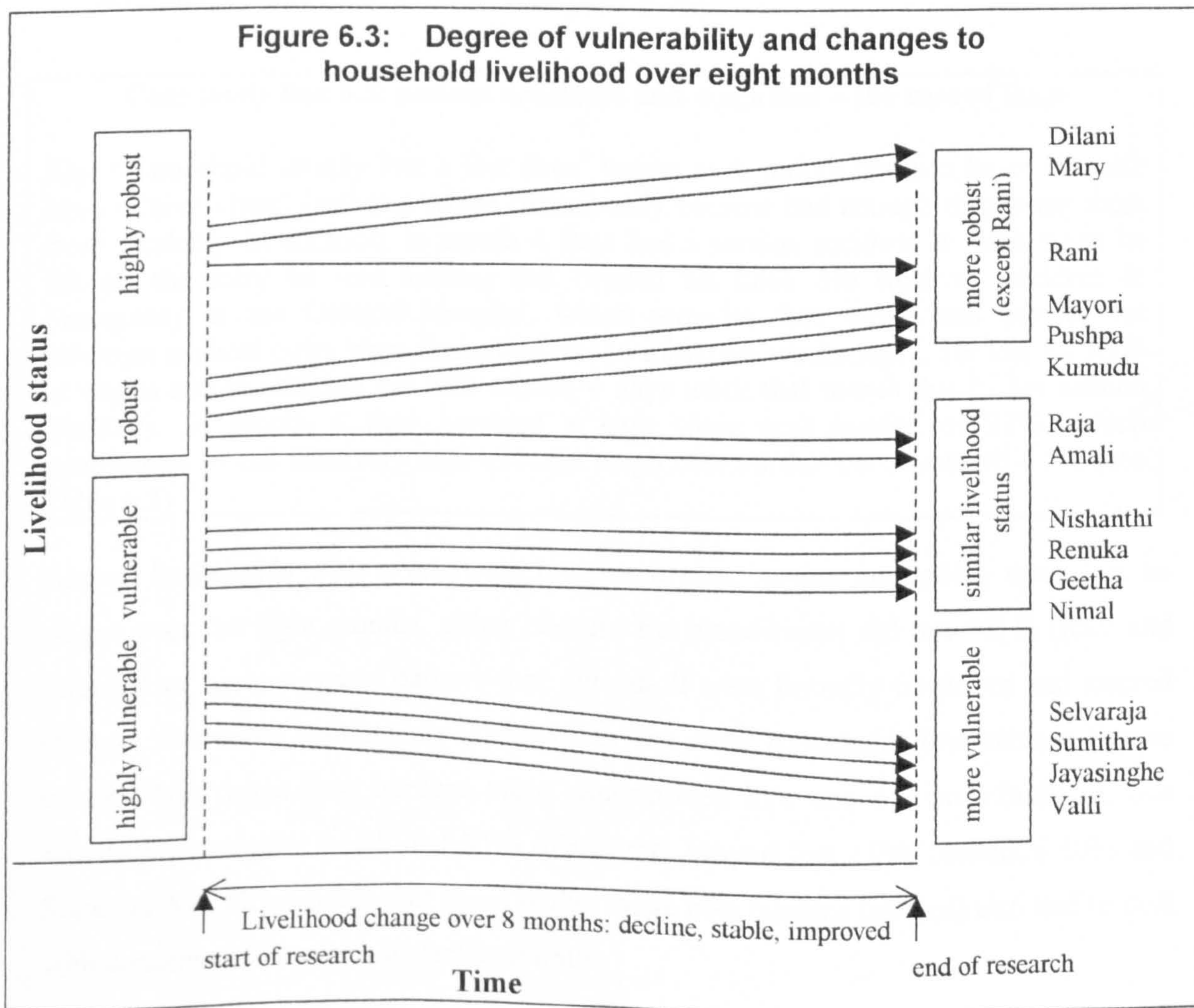


Figure 6.3: Degree of vulnerability and changes to household livelihood over eight months



Nimal and Jayasinghe suffered the highest illness cost burden. Both households lost considerable potential earnings each month because a worker was permanently incapacitated, but the total burden is not quantified on Figure 6.2 because a precise wage cost burden was difficult to calculate. Instead the total cost burden is denoted as high (i.e at least 50%), but incalculable. Four other households incurred an average cost burden over 10% per month for 8 months. Two households from each livelihood impact category (declined, stable, improved) suffered a total cost burden above 10%.

Table 6.3 summarises wage costs and burdens in more detail. Seven households would have fallen into the household survey upper quartile wage cost burden group with burdens over 2.45%. These high average wage cost burdens per month were caused by:

- A long term or chronic illness that permanently incapacitated the main income earner (Nimal; Jayasinghe (Box 6.7)); or that incapacitated an earner on a regular basis (Valli with arthritis (Box 6.7)); or that occasionally incapacitated workers (Pushpa's husband; Raja and his wife with asthma).
- A serious accident or acute illness that incapacitated a worker and led to loss of work in the short term (Pushpa; Raja [Box 6.5]).

Case study box 6.5: serious accidents and wage loss – the case of Raja

Raja's household usually lost a few days' wages each month because he or his wife have a 'sore chest' (asthma) which occasionally became bad enough to prevent them from working. In addition, in month 4 Raja had a serious accident at work when he fell off the lorry he was loading and twisted his knee. He went to Accident & Emergency at the General Hospital, which provides free x-rays and advice, but although medical costs were limited he had to miss two weeks work. He lost Rs.3000 in wages and in addition his wife missed 4 days work that month due to her asthma (Rs.330). In month 4 they incurred a high wage cost burden of 33%, which contributed to the relatively high average wage cost burden per month of 4.2% (see Table 6.3).

Among households with a relatively low wage cost burden (unshaded) three lost no wages over the eight months, either because the breadwinner did not fall ill (Rani and Renuka) or because wage earners that did fall ill were formally employed and insured through sick leave entitlements (Dilani). For the other households low average figures conceal how wage cost burdens were concentrated into one or two months: in one month, for example, Amali lost 31% of income, Mayori lost 11%, Nishanthi 10% and Sumithra 6%. Households that faced higher wage cost burdens (shaded) also had to deal with concentrated burdens in certain months.

Table 6.3: Average wage costs and burdens among case study households

Household	Average loss and burden per month over 8 months ^a		
	Paid work days lost	Wages lost (Rs. / month)	Wage loss burden
Nimal ^b	30.0 (maximum)	incalculable	high / incalculable
Jayasinghe ^c	30.0 (maximum) + 0.8	incalculable + 59	high / incalculable + 1.89
Valli	9.4	800	13.26
Pushpa	6.9	953	10.62
Kumudu	2.5	500	5.74
Raja	4.3	664	4.19
Geetha	0.8	75	2.63
Mayori	2.6	188	2.38
Amali	0.3	100	2.06
Nishanthi	3.9	155	1.37
Mary	0.5	94	0.58
Sumithra	0.4	30	0.44
Selvaraja	0.1	25	0.42
Dilani	2.7	0	0.00
Rani	0.0	0	0.00
Renuka	0.0	0	0.00

^a households shaded grey would have fallen into the highest survey wage cost burden quartile group, with wage loss burdens above 2.45% of income per month.

^b due to his illness Nimal could not work so days lost were a maximum of 30 per month and lost wages and wage loss burden could not be calculated but were considerable.

^c due to his illness Jayasinghe gave up work and could not earn income. Days lost by him were a maximum and other members lost an average of 0.8 days per month, which was equivalent to Rs.59 per month or 1.89% of household income.

Table 6.4 summarises financial cost burdens in more detail, and allocates households to the financial cost burden quartile groups established by the household survey, to show whether case study households faced a high or low financial cost burden relative to other households in the community. Most households fell above the median financial cost burden figure from the survey (1.3%), and five fell in the highest quartile. High financial cost burdens were incurred for three broad types of illness and treatment seeking strategy:

- *Chronic illness that incurred financial costs on a regular basis*: for example Nishanthi had non-insulin dependent diabetes and goes to the only fee paying (but subsidised) government hospital for her monthly clinics (Sri Jayararednapura General Hospital). At this hospital she has to pay for the clinic consultation and her tablets. She also buys tablets from the pharmacy if she has no time to go to her regular clinic, and has a blood test done privately each month.
- *Acute or crisis illness that incurred high financial costs*, usually through one or two critical incidents over the 8 months which caused costs to be lumpy. Financial costs were high for serious acute episodes because:

- people sought private OP care in sequence over an extended period because the illness was serious and not improving; for example in the case of Nimal (Box 5.6 in Chapter 5), and Dilani and Pushpa (Box 6.6);
- people seek hospital IP care, which despite being free at the point of delivery often generates additional costs: for items such as transport; for extra medical inputs not provided by the hospital (for example Kumudu had to supply the lens for her father's cataract operation at a cost of Rs.4000); or for other unexpected variables (for example food costs incurred by Geetha to feed all her visitors after she was released from hospital – see Box 5.7 in Chapter 5).

Table 6.4: Average financial cost burden per month

Household survey financial cost burden quartile group			
1 st quartile 0 – 0.24%	2 nd quartile 0.25 – 1.32%	3 rd quartile 1.33 – 4.3%	4 th quartile 4.4%+
	Mary (0.8)	Rani (1.6)	Nishanthi (4.4)
	Jayasinghe (1.1)	Mayori (2.0)	Kumudu (6.7%)
		Amali (2.1)	Pushpa (8.1%)
	Renuka (1.1)	Selvaraja (2.1)	Geetha (31.1%)
	Raja (1.3)	Sumithra (3.0)	Nimal (132.6%)
		Dilani (3.4)	
		Valli (4.2)	

Case study box 6.6: acute illness and high financial costs due to repeated use of private doctors

Pushpa and Dilani preferred to use their 'family' doctor, a private practitioner with whom trust and continuity of care had evolved, especially with respect to their children.

Dilani

In month 7 Dilani's household incurred a high financial cost burden (10.8%) because her son developed a serious urinary tract infection. Her first action was to take him to a private hospital (Asiri) OPD because he was very ill and they sought care during the night when the family doctor was unavailable. They spent Rs.1250 on a consultation, tests and medicine but he did not improve, so she then took him to the private family doctor three times, spending Rs.500 in total. After two weeks of taking medicine the infection had still not cleared so she went back to the government hospital, where they got more medicine and eventually he recovered.

Pushpa

Pushpa's daughter had a serious cough for over three weeks in month 8, and Pushpa took her to the same private doctor four times during this period, which in total cost Rs.1140 and incurred a financial cost burden of 20%.

A few households faced a relatively low financial cost burden (2nd quartile and lower part of 3rd quartile) that was fairly constant over the eight month period, spending nothing on care in some months, and in others facing burdens ranging from about 0.2% to 3.0% of income (Mary, Amali). Others with a low average financial burden per month had 'lumpy' spending and faced a relatively high financial cost burden in one month, for example Raja faced a burden of 16% in one month, Mallika 9% and Selvaraja 6%.

6.3.3 Overview of links between illness cost burden and impact on livelihood

Figure 6.2 shows there is no clear relationship between illness cost burden and livelihood change over 8 months (declined, stable, improved). Some households that incurred high cost burdens declined, others remained stable or improved. Similarly those that incurred relatively low burdens experienced different impacts. The lack of a direct relationship between illness cost burden and livelihood change is because:

- illness costs, or a lack of them, are not the only factor influencing livelihood development, and;
- the influence of illness cost burden on household livelihood is mediated by household ability to manage or cope with illness costs; and the degree to which the household is vulnerable or robust.

Figure 6.3 illustrates the important influence that vulnerability or robustness had on the direction of household livelihood change. In general, highly vulnerable households declined and robust households remained stable or improved. The key question is then whether illness cost burdens played a role in these trends.

Table 6.5 is a starting point for this analysis, and examines the links between illness cost burden, vulnerability, and livelihood change in more detail. When the third variable of vulnerability or robustness is added to analysis, the link between illness cost burden and livelihood change becomes clearer, and in general:

- highly vulnerable households with moderate cost (third survey quartile) or high cost (upper quartile) burdens declined;
- (less) vulnerable households with moderate or high cost burdens remained stable (although some were close to decline);

- households with relatively low illness cost burdens (second survey quartile) remained stable or improved;
- robust households with moderate or high cost burdens remained stable or improved despite these burdens.

Table 6.5: Aggregate illness cost burden per month and impact over eight months

Total illness cost burden ^a	Changes to household assets, income and robustness over 8 months		
	declined	stable	improved
0 – 0.49% (lower quartile)			
0.50-2.74%		<i>Renuka</i> (1.1%) <i>Rani</i> (1.6%)	<i>Mary</i> (1.4%)
2.75-7.74%	Selvaraja (2.5%) Sumithra (3.5%)	<i>Amali</i> (4.2%) <i>Raja</i> (5.4%) <i>Nishanth i</i> (5.8%)	<i>Dilani</i> (3.4%) <i>Mayori</i> (4.4%)
7.75%+ (upper quartile)	Valli (17.4%) Jayasinghe (high)	<i>Geetha</i> (33.7%) <i>Nimal</i> (high)	<i>Pushpa</i> (18.7%) <i>Kumudu</i> (12.5%)

^a household survey total cost burden quartile groups

Household baseline situation (see Figure 6.1)

bold = highly vulnerable livelihood situation when research started

italic = vulnerable livelihood situation when research started

normal = robust or highly robust livelihood situation when research started

6.4 The nature of livelihood change: assets, income and borrowing

This section examines in more detail the mechanisms that led to livelihood decline, stability or improvement, and the contribution of illness and illness costs to these changes. It focuses on four dimensions of livelihood that changed the most over the eight months and that were therefore most important in the assessment: work and income (human capital); financial assets; debt levels; and expenditure and consumption patterns.

Table 6.6 summarises livelihood changes over 8 months. It starts with the four baseline vulnerability / robustness categories described at the start of the chapter (Figure 6.1) and describes how each category changed. The three types of livelihood change are then superimposed onto these 4 vulnerability / robustness categories, and reiterate the processes shown in Figure 6.3:

- all highly vulnerable households declined;

- all vulnerable households remained stable;
- some robust households remained stable and others improved;
- some highly robust households remained stable and others improved

6.4.1 Human capital

Critical dimensions of decline for highly vulnerable households were threats to their most important asset, labour, leading to falling wages. Such threats resulted from:

- growing insecurity of daily work (all);
- falling real wages due to inflation (all);
- loss of a worker: due to illness (Jayasinghe); or other reasons (Sumithra);
- frequent loss of work and income due to incapacitating illness (Valli).

These factors led to reduced income flow between months 1 and 8 for highly vulnerable households (Figure 6.4). Although Selvaraja's income remained relatively constant (the sole breadwinner rarely lost work due to illness), rising living costs over the period caused a decline in the household's real income, and steeper real declines for the other households. Two households in this group lost work and faced declining income largely due to long term health problems (Box 6.7).

The fourth household in this group, Sumithra, faced the most extreme income decline in month 5 but this was not due to ill-health (Figure 6.4). The household lost its main worker when the husband was suspended from his secure job at a bank for disciplinary reasons, and lost half his salary in month 5 and all his salary for subsequent months, which pushed the household into a serious financial crisis. By month 8 two sons had found work, but household income had only recovered to 47% of its level in month 1.

Table 6.6: Dimensions of livelihood change over eight months

Situation at start of research >	Highly vulnerable	Vulnerable	Robust	Highly robust
Key livelihood changes over 8 months				
Overall change >	Decline	Stable	Stable or improve	Stable or improve
Human capital: health & work	<ul style="list-style-type: none"> • loss of income earner • work & income less reliable • illness caused income loss 	<ul style="list-style-type: none"> • little change to reliability of work • illness caused income loss 	<ul style="list-style-type: none"> • no change to no. of workers or reliability of work • illness caused income loss 	<ul style="list-style-type: none"> • no change: diverse or secure livelihoods sustained • illness caused income loss
Income	<ul style="list-style-type: none"> • decline / less secure • rising cost of living reduced real income 	<ul style="list-style-type: none"> • stable • rising cost of living reduced real income 	<ul style="list-style-type: none"> • stable • rising cost of living reduced real income 	<ul style="list-style-type: none"> • stable • rising cost of living reduced real income
Physical capital	<ul style="list-style-type: none"> • threat to land & housing security • already sold other assets 	<ul style="list-style-type: none"> • no change (not yet reached this stage of asset strategy) 	<ul style="list-style-type: none"> • some invested in housing, TV 	<ul style="list-style-type: none"> • invested in various assets: housing, electricity, water supply, toilet, business activities
Financial capital or stores	<ul style="list-style-type: none"> • little change because had already pawned all or most jewellery • pawned last items of jewellery 	<ul style="list-style-type: none"> • used savings • pawned last jewellery 	<ul style="list-style-type: none"> • pawned jewellery • but also used stores to invest • invested in savings 	<ul style="list-style-type: none"> • most jewellery pawned for investment purposes • invested in jewellery & savings
Debt levels	<ul style="list-style-type: none"> • increased debt due to illness costs in 2 households; decreased in 2 others • increased due to other financial stress & accumulation of interest 	<ul style="list-style-type: none"> • limited debt due to illness • increased debt due to other financial stress 	<ul style="list-style-type: none"> • limited debt due to illness • increased debt due to other financial stress 	<ul style="list-style-type: none"> • rarely borrowed money for financial stress • did not accumulate debt due to illness costs • most debts for investment purposes
Expenditure & consumption	<ul style="list-style-type: none"> • frequently delayed spending on bills & made lasting cuts to food consumption & other essential areas such as children's educational costs 	<ul style="list-style-type: none"> • delayed payments on electricity, water and school bills • did not cut food consumption (except Geetha) 	<ul style="list-style-type: none"> • delayed payments on electricity, water and school bills 	<ul style="list-style-type: none"> • no change (except Mallika)

Case study box 6.7

Chronic illness threatens labour and income: Valli and Jayasinghe

A critical factor causing income decline for these households was chronic illness. Valli's income was on a declining trend due to Valli's earlier health problems (see Box 6.3), and during research she continued to miss work frequently due to illness (her arthritic aches and pains), incurring high wage losses over the 8 months (Figure 6.2). Her husband also missed a lot of work because his employer had less work available, and after month 3 his income losses were higher than those of Valli. The exception to this declining trend was in month 6, when the household rented out a room and received a Rs.12,000 deposit from the tenants. However this strategy was a response to their declining income and debt situation: they had to use the money for food and to pay accumulated interest on debts.

Jayasinghe's income had already faced a dramatic cut because the main breadwinner was unable to go back to work following operations on intestinal tumors (see Box 6.1). In month 5 the household faced a further income decline (Figure 6.4) caused by:

- the loss of a worker: Jayasinghe's sister, the main breadwinner following his illness, left home;
- a reduction in the last remaining worker's ability to work due to old age: his mother reduced her work days to about one or two per week because "*she was not feeling well these days and always feeling tired*".

The main difference between households that declined (all highly vulnerable) and those that remained stable (some vulnerable and some relatively robust) is that stable households did not face as many threats to their most important asset, labour. In general stable households did not face growing insecurity of work like those that declined, they had more workers per household, and with the exception of Geetha and Nimal, had higher and more stable incomes than the highly vulnerable group (compare Figures 6.5 and 6.6 with Figure 6.4). Thus shocks such as inability to work due to illness imposed less of a cost burden, and if one worker was ill there were others that continued to bring in income (Rani, Raja (see Box 6.8)), and Nishanthi (Box 6.10). In one case a household increased its number of workers over 8 months because a worker recovered from a long term illness and returned to work (Nishanthi – see Box 6.10).

Figure 6.4: Highly vulnerable households that declined: income flow over eight months

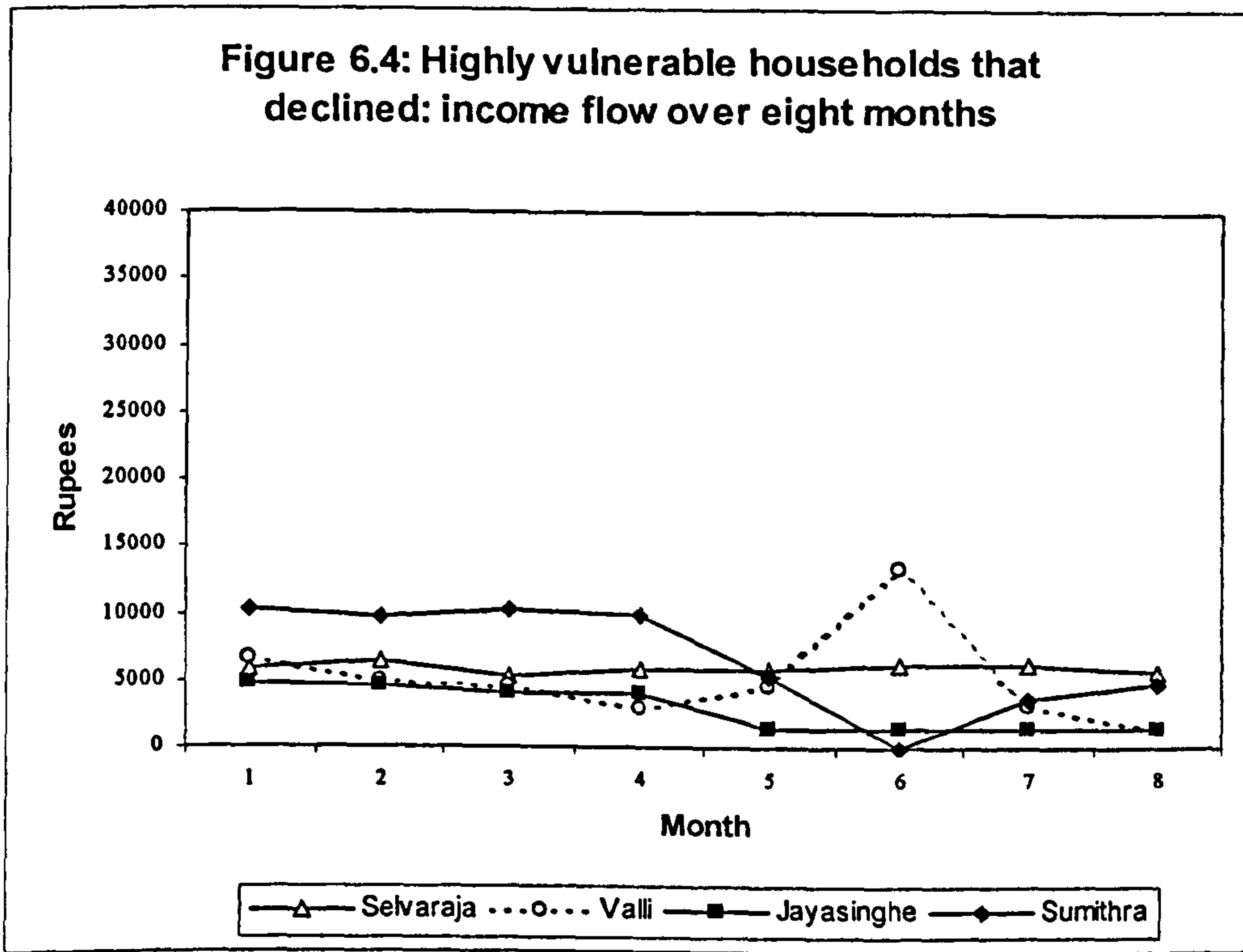
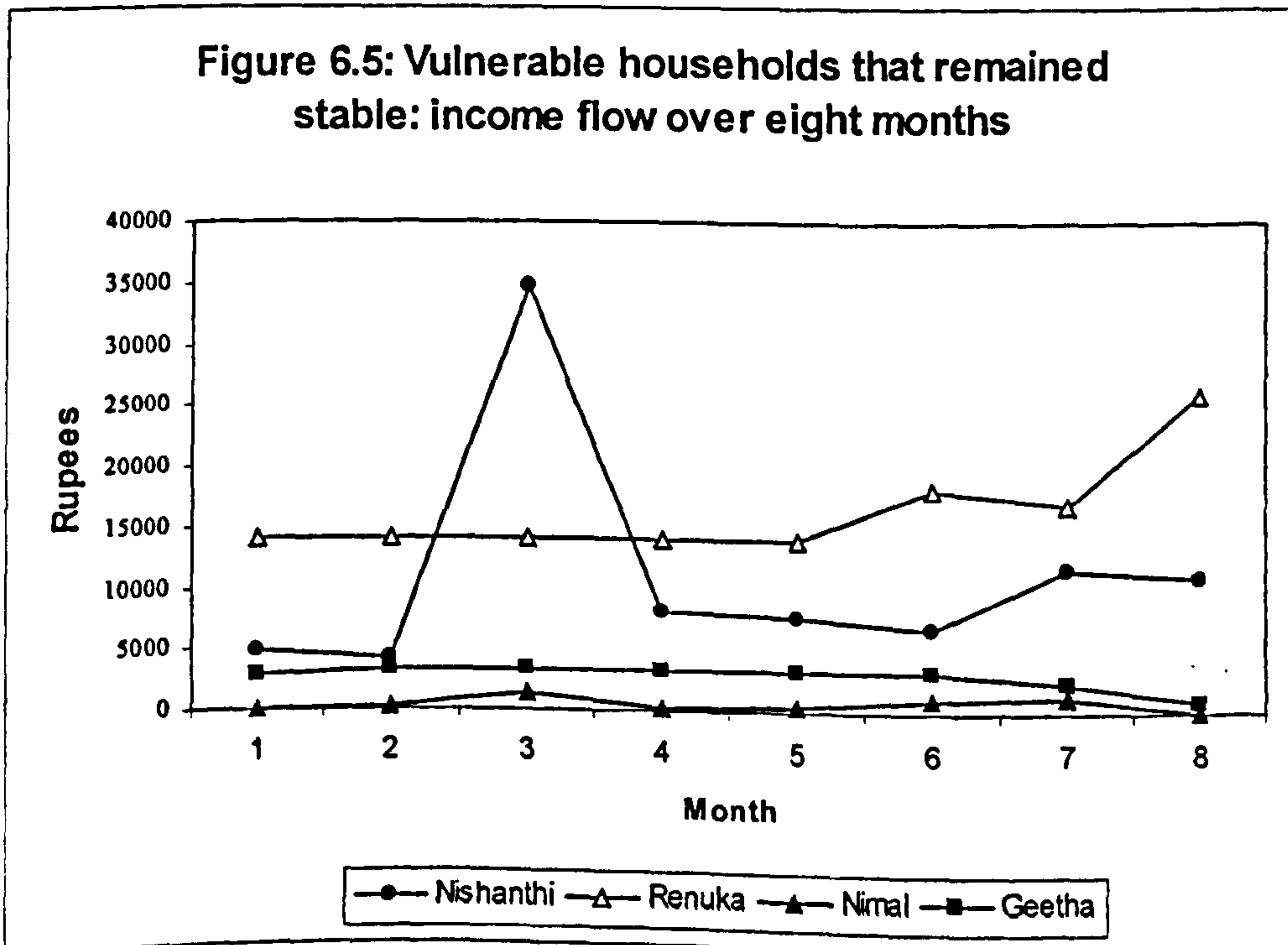


Figure 6.5: Vulnerable households that remained stable: income flow over eight months



Case study box 6.8

Household resilience against wage losses – multiple workers

Raja's household suffered a relatively high average wage cost burden per month of 4.2% (Figure 6.2), and in month 4 suffered a very high burden of 33% due to Raja's accident and his wife's asthma (see Case study box 6.5). However, the household was relatively robust when a worker had to take time off work due to illness, because there were 3 workers in the household, Raja, his wife and their eldest son (all manual workers earning a daily wage):

"Recently it has been difficult...But my son found work (at a petrol shed) and now we have a little more money... So when my wife had a sore chest (and missed work) we had money available and did not have to borrow for our daily needs" (Raja).

Case study box 6.9

Sudden income peaks and ability to meet lumpy costs

Sudden income peaks are important for households because they enable them to make 'lumpy' expenditures or repay debts, or can act as buffers for households facing a period of reduced income. For example Raja's household received a lot of cash in month 2 because they rented out a room and his wife received a *seetu* payment. With this money they paid back Rs.8,000 of a Rs.10,000 debt for improving the house, and bought a TV and cassette player. A second income peak in month 8 (Rs.42,900 from a *seetu*) came at an important time because the wife had not been able to work due to illness or lack of work and their income had been declining slightly (Figure 6.6): *"The seetu payment was useful because things have been difficult recently...my wife has been ill and not been working so often, and we still have debts to pay, bills to pay"*.

Case study box 6.10

Recovery from illness a key asset for the poor: the case of Nishanthi

When research started Nishanthi's household income was below the level that they had become used to (dropped from about Rs.10,000 to Rs.5,000), because her husband, a manual labourer, was recovering from a kidney operation and was unable to work. The household was able to cope and sustained a monthly income of about Rs.5,000 because there were two other income earners: Nishanthi made string hoppers (a sort of rice flour noodle) for a local shop and earned a small amount each day (about Rs.1,000 per month), her youngest son had a regular monthly salary at a private bank (Rs.3,000), and they also took in two student lodgers (Rs.1,000 per month).

In month 4 her husband recovered and began to find work again, and their income levels started to recover (Figure 6.5). In the last two months he found longer term painting and decorating jobs which increased income levels and by the end of the research period household income had recovered to about Rs.10,000 per month.

Figures 6.5 and 6.6 show that some households in this group had additional income flows which provided sudden lump sums of income, either from *seetu* (Nishanthi, Raja, Renuka), or from renting out a room and receiving a year's rent in advance (Nishanthi, Raja). These sudden income flows helped households cope with illness costs and remain stable (Box 6.9).

Two households in this group, however, were more vulnerable. They either had no income (Nimal) or growing insecurity of labour and income (Geetha) like the highly vulnerable group. These two households also faced the highest illness cost burdens among stable households (Table 6.5, Figure 6.2). However, they remained stable because they were less vulnerable than the group that declined (see Table 6.5): they had other material or social assets (see below).

The third category of household (those that improved) also faced fewer threats to work and income. In general they had more secure work or did not face growing insecurity of work. They also had two or three workers per household and higher incomes, so that shocks such as inability to work and lost wages due to illness imposed less of a cost burden. If households in this group did face a relatively high wage cost burden (as in the cases of Kumudu and Pushpa), multiple workers meant there were others that continued to bring in income. However even these households faced falling real wages due to inflation, and in this group Mayori had started to face financial difficulties because although the household's income was secure, it was low (see expenditure below).

6.4.2 Financial assets

A major factor distinguishing highly vulnerable households that declined, and less vulnerable or robust households that remained stable, was ownership of financial assets or stores, mainly jewellery, that was mobilised to cope with financial stresses.

Figure 6.7 shows the value of financial stores used to finance illness costs (usually direct treatment costs) and other financial stresses. Most stresses for which financial stores were used were non-illness related. In all cases except Geetha the financial stores used were jewellery and they were exchanged for cash through pawning at banks or

pawnbrokers. Geetha pawned jewellery but most financial stores she used were savings she had accumulated when she worked in Taiwan (see Box 7.1 in Chapter 7).

The value of stores used by households that declined during the 8 month period was low because they had used all or most of their stores in earlier periods, often because of illness:

- Jayasinghe's household had pawned nearly all jewellery since he had stopped working after his operation (Box 6.1);
- Sumithra's household had pawned nearly all jewellery to help finance treatment costs in the past (Box 6.2);
- Valli had pawned all but her last item because of their financial problems following the loss of her permanent job after illness, and due to frequent financial stresses arising from her sickness-related inability to work (Box 6.3).

During research these households then pawned their last items of jewellery:

- Jayasinghe's sister, to pay for her son's education costs (uniform, shoes, books);
- Sumithra, to pay for treatment in month 1;
- Valli, to finance an urgent visit to a private doctor in month 1 and get medicine for her son who had acute stomach pains and was vomiting;
- Selvaraja, mainly for daily needs.

In the stable group, two households (Renuka, Nimal) were in a similar situation to those that declined when research started: they had pawned all their jewellery, in Nimal's case due to serious long term illness that had caused impoverishment (Box 6.1), and had no financial stores to cope with other contingencies over the 8 months.

In contrast other households that remained stable used a greater value of stores to cover financial stresses: two vulnerable households used a substantial amount (Nishanthi, Geetha), and more robust households in this group also depleted stores. In general stores were used to sustain consumption when income was lost (sometimes due to illness); to pay for daily needs as costs of living rose and real income fell; to pay debts; to finance illness costs (to a lesser extent) or to finance other sudden contingencies. Thus although some households in the stable group incurred a high illness cost burden (particularly Geetha), they remained stable because they could fall back on financial stores.

Two other differences between the declined and stable household groups were, firstly, that in the stable group stores were not always used to finance stresses and sustain consumption. Some stable households, especially those in the more robust category (Rani, Raja), also mobilised stores to obtain cash for investment purposes. For example Rani's husband pawned his gold chain to help finance a water connection, and Rani pawned jewellery to make a *seetu* contribution.

Secondly, some also invested in financial stores during the research period, even as they were depleting others: they either redeemed pawned jewellery before the research ended, or saved through *seetu* throughout the eight months. Raja paid Rs.1,300 per month over 8 months; Nishanthi Rs.1,500 per month; Amali Rs.500 per month: and Rani about Rs.500 per month. These regular *seetu* payments could later be collected, providing the income peaks observed in Figure 6.6, and their purpose was often to collect enough money to redeem items of pawned jewellery or repay debts.

When research ended two households in this group (Geetha and Nishanthi) had used most of their financial stores over the 8 months and were in a more vulnerable situation than when research started.

Households that improved possessed jewellery, often worth over Rs.10,000, and three households pawned jewellery to cope with financial stresses, including illness costs (Figure 6.7). However, this group usually pawned jewellery to raise cash for investment purposes, and as this was a financial strategy (not out of desperation to sustain consumption) jewellery was usually quickly redeemed.

All households in this group, except Kumudu, were investing in financial assets or stores during the research period (Table 6.7). For example over eight months Dilani invested substantial sums of surplus income in new jewellery for herself or her daughter (Rs.8,100), redeemed Rs.7,000 worth of other jewellery, and was investing heavily in *seetu* (Rs.4,000–5,000 per month).

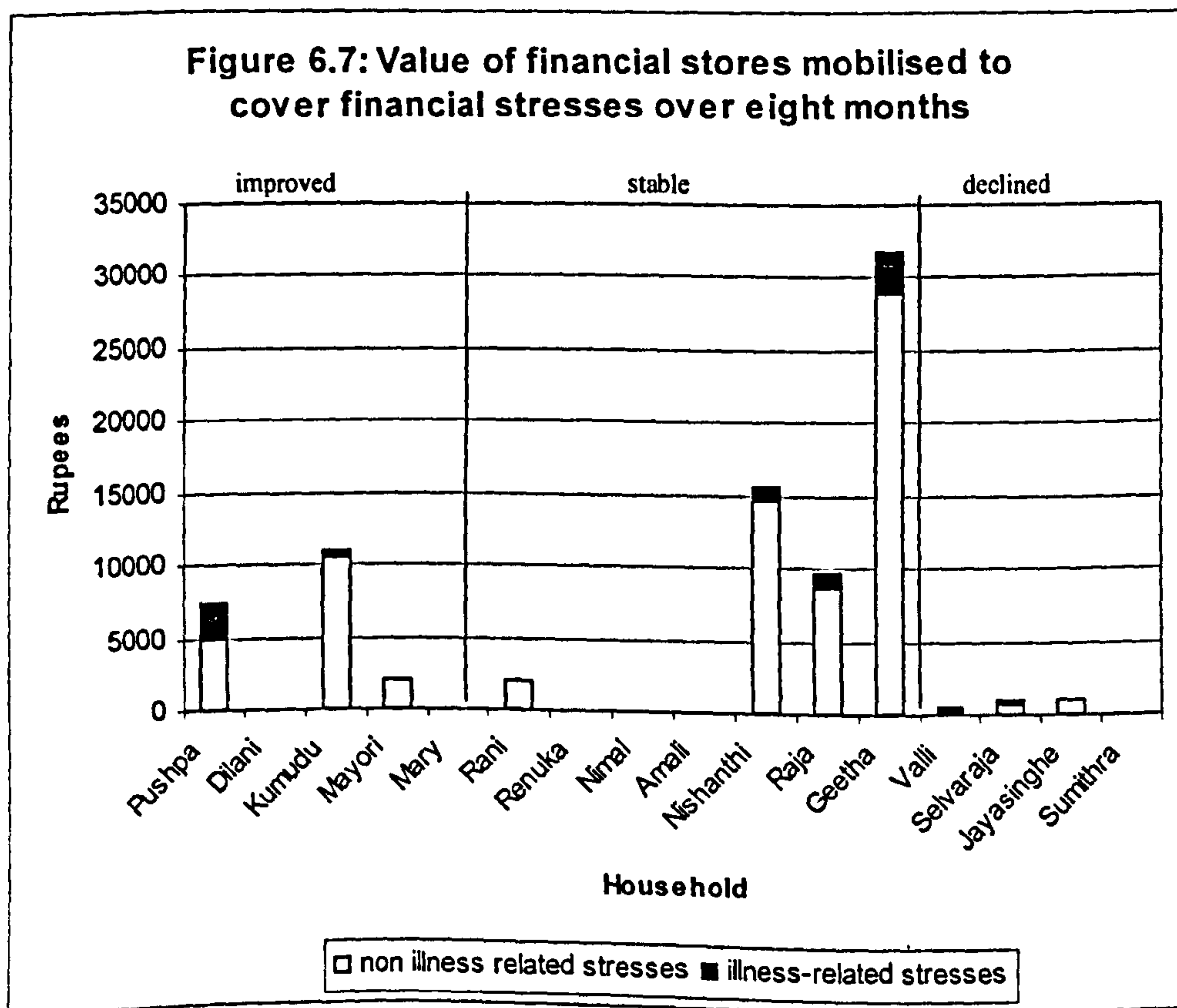
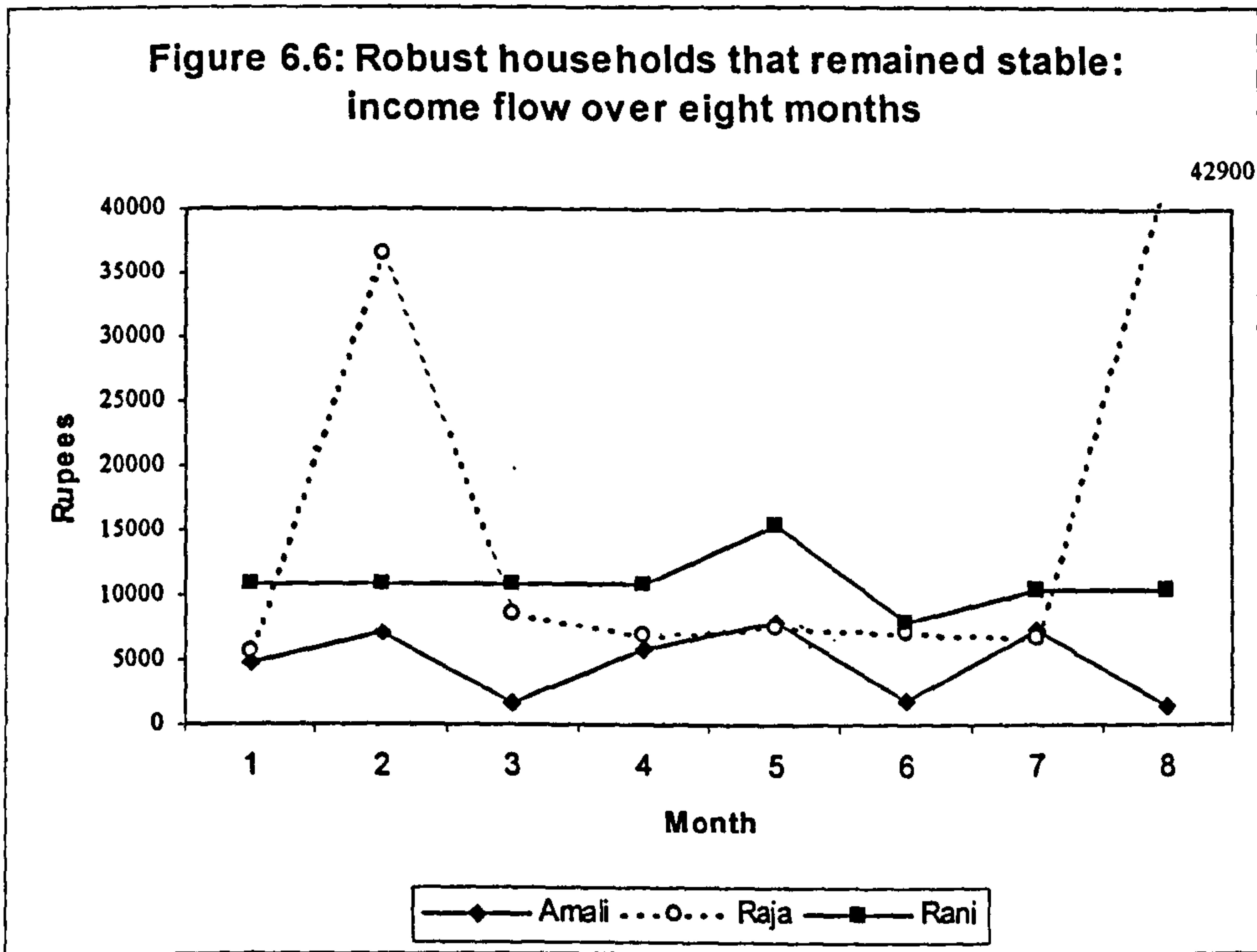


Table 6.7: Improved households: investment in financial stores

Use income surplus each month to: >>	invest in new jewellery	redeem pawned jewellery	pay seetu each month
Dilani	Rs.8100	Rs.7000	Rs.4000–5000
Mary		Rs.13000	Rs.500
Mayori		Rs.2055	Rs.3000
Pushpa	Rs.3100	Rs.5550	Rs.2200
Kumudu		Rs.1000	

6.4.3 Borrowing and debt levels

Figures 6.8–6.10 show how debt levels, incurred due to financial stress or for investment purposes, changed for households over the eight month research period. As highly vulnerable households' real incomes declined (Figure 6.4), debts to cover financial stresses and sustain consumption increased (Figure 6.8), in one case because high interest rates had accumulated on existing debts (Valli, see Box 6.11).

Case study box 6.11

Households that declined – debts to cover non illness related stresses increased

Sumithra had taken a large loan of Rs.15,000 from the bank (husband's work place) in month 3 and used this to pay off some smaller debts (debt rolling), buy a lot of non-perishable food supplies (rice, dhal, salt, spices etc), and other basic items they had been waiting to buy because of cash shortages (son's spectacles for Rs.3,500). At the end of research Selvaraja and Jayasinghe had accumulated smaller debts to local shops and sellers.

Valli's debts had increased dramatically and seriously threatened their livelihood by the end of the eight months (Figure 6.8). Debts had accumulated because they had failed to pay high monthly interest rates: the Rs.15,000 they owed to the lawyer following their son's court case was accumulating at a rate of Rs.2,250 per month (15%), and for several months they owed Rs.3,000 to a moneylender which had accumulated at a rate of Rs.600 per month. In addition to these two accumulating debts they owed about Rs.1,700 to the local shop because of their declining income situation.

The costs of illness did not cause these households to borrow heavily over the eight months however (Figure 6.9). Valli and Selvaraja had accumulated debts of Rs.875 and Rs.500 respectively, and the other two households in this group had paid off some illness-related debt (Jayasinghe and Sumithra). However, Sumithra's debt due to illness remained extremely high at over Rs.67,000 and a heavy burden on their monthly income because debt repayments were cut from the husband's salary. Sumithra's household also borrowed heavily to invest in housing (Figure 6.10). Not only did this

add to the debt burden, it also left the household struggling to make repayments, with large cuts from the husband's salary each month leaving inadequate money for basic daily consumption needs.

Among stable households stress-related debt levels increased for some households due to increasing pressure on budgets and financial stress over the eight months, both among robust households (Rani, Amali) and more vulnerable households in the group (Nishanthi) (Figure 6.8). However, very little debt accumulated due to illness costs over the eight months, and two households actually paid off some of their illness-related debts (Figure 6.9). Large debts did not accumulate for this group because households relied more heavily on pawning jewellery and savings. Only Nimal and Geetha accumulated debt due to illness.

In contrast to the other two groups, households that improved rarely needed to borrow money for financial stresses or consumption purposes (Figure 6.8), and had not accumulated any debt due to illness costs when the research period ended after eight months (Figure 6.9). Nearly all debt accumulated was for investment (Figure 6.10), primarily in housing, for example Mayori borrowed Rs.15,000 for house improvements, and Kumudu borrowed Rs.14,100 to get a water connection and build a private toilet at the back of the house. Dilani borrowed no money over the eight months but already had a large debt from investing in a 3-wheeler which was now earning about Rs.4,000 per month (compared to the Rs.1,950 they were repaying the bank each month – mostly interest to start with).

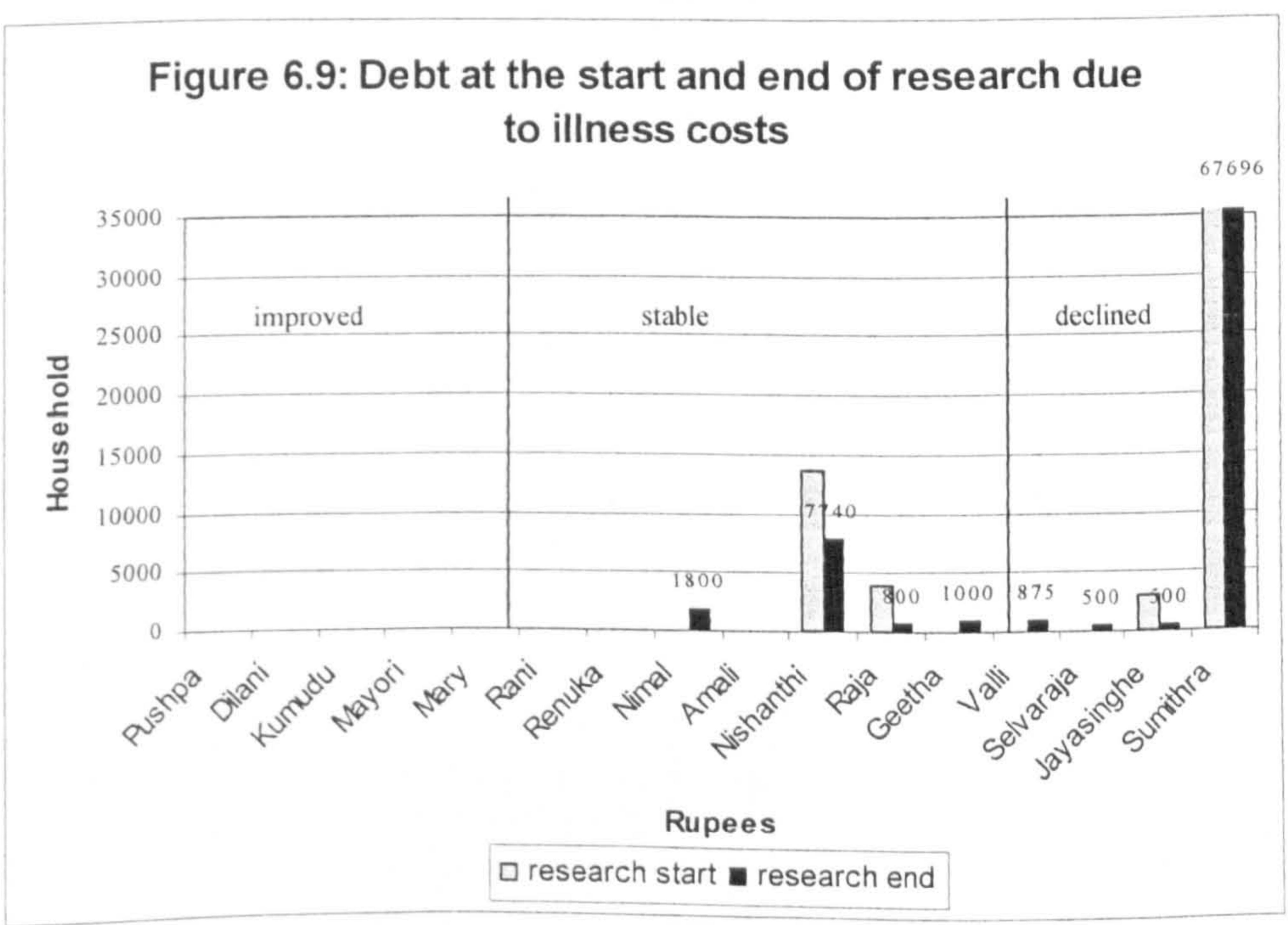
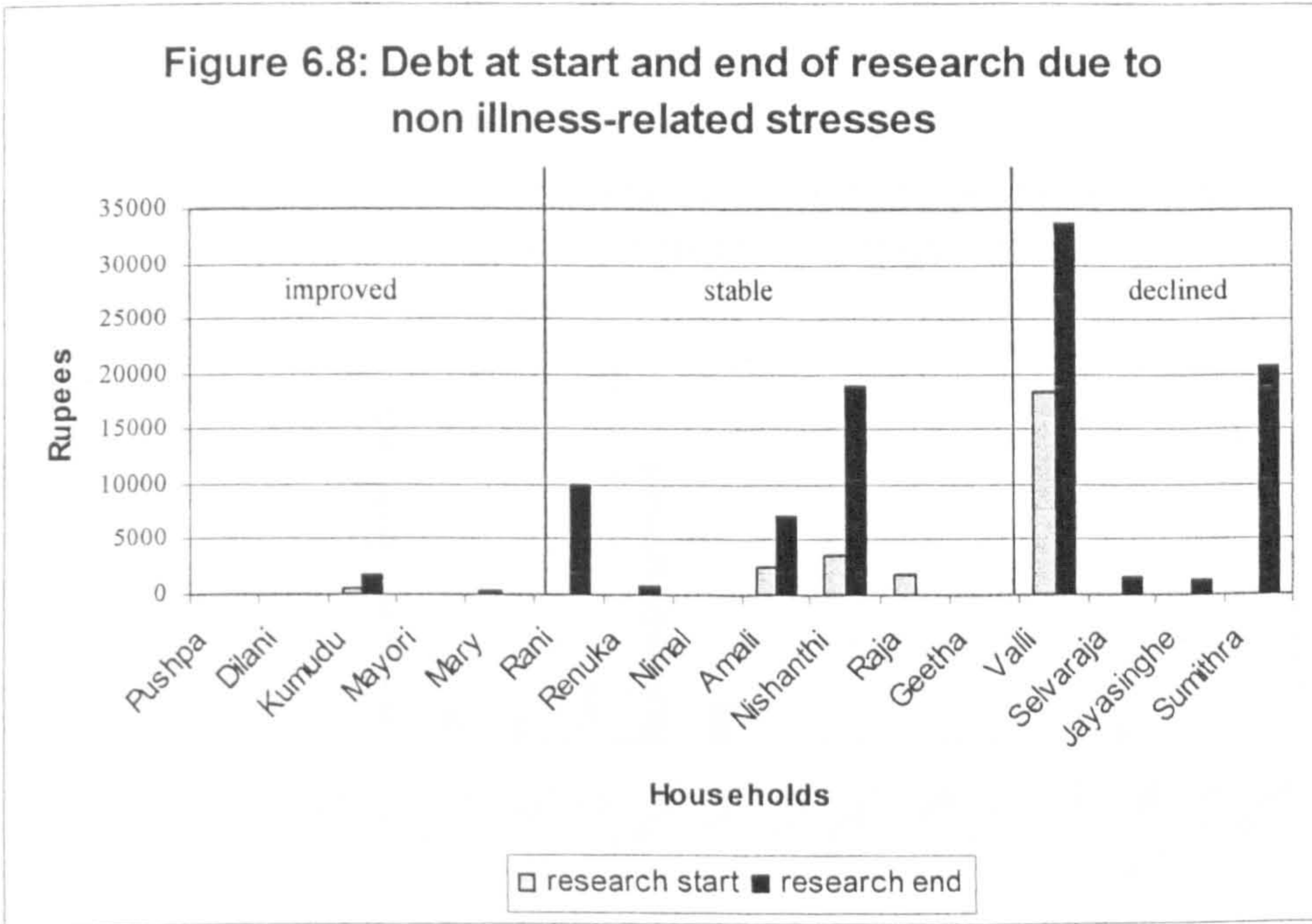
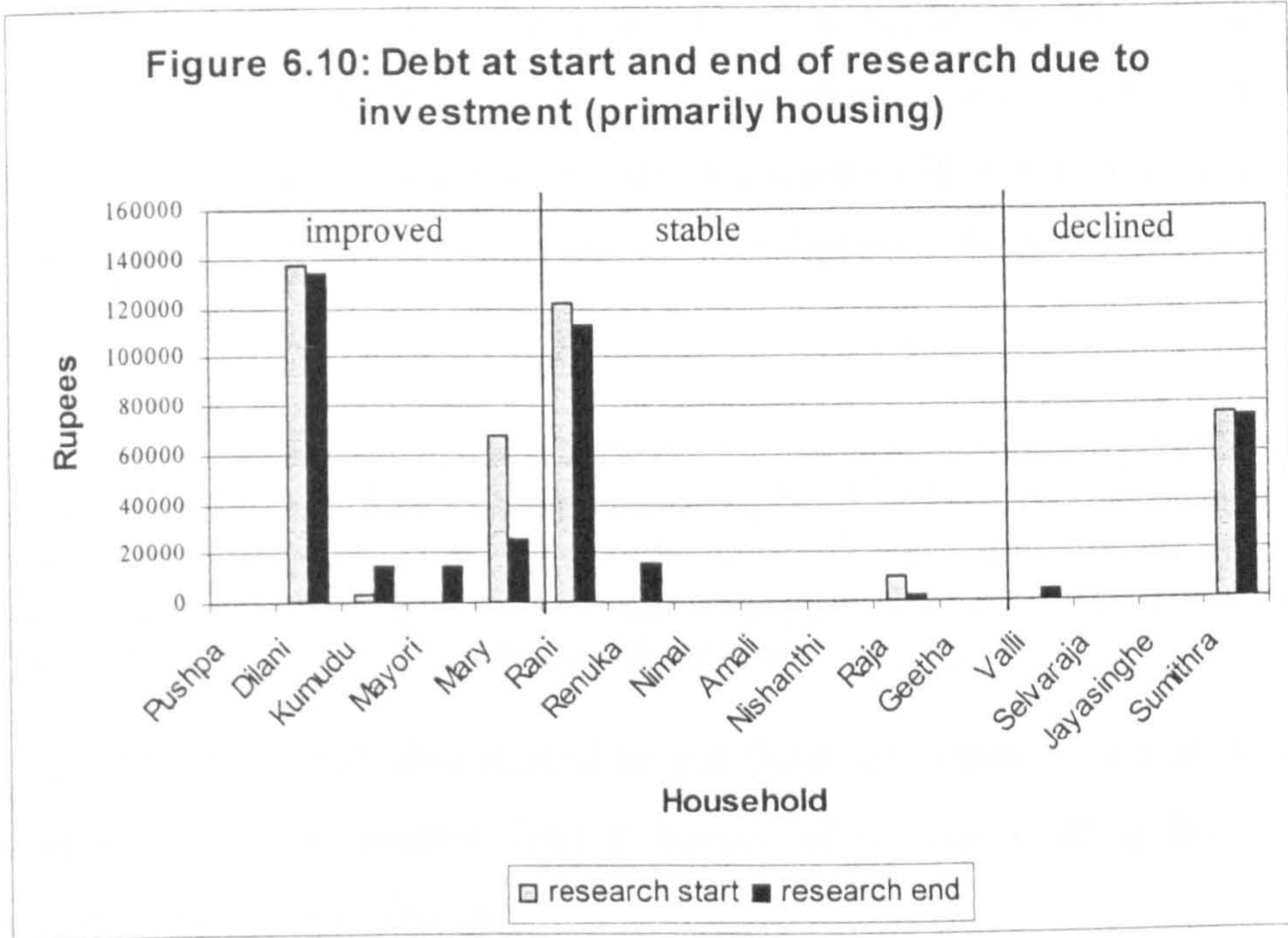


Figure 6.10: Debt at start and end of research due to investment (primarily housing)



6.4.4 Expenditure and consumption patterns

For highly vulnerable households, a common coping strategy and dimension of decline was to delay spending on bills and to make lasting cuts to food consumption (at least a month) and other essential areas such as children's educational costs. Cutting food consumption was a very common strategy on days when a breadwinner could not work, which in the case of Valli was a frequent stress caused by illness. For Valli this was the last remaining option, since assets and stores were depleted, debts accumulating, and the property mortgaged:

“If I am ill there is no money for food...but my legs are hurting and I couldn't go to work today...we didn't eat this morning but I will try and get some food today and cook this evening...somehow...because on some days we have no money I have not been cooking – we only eat a proper meal once per day...even during Pongol (Hindu festival) we had no food to eat” (Valli).

Jayasinghe's household had also started to cut food consumption, a cost management strategy caused by the permanent drop in household income resulting from his illness, combined with rising costs of living:

“How can we buy all the food we need now he is not working... Have you seen the price of rice these days? Even if you have Rs.1000 it goes when you take it to the market. A coconut is Rs.15...Do you remember? When you first came? How much was a coconut? Rs.10!” (Jayasinghe's mother).

Similarly, for other households in this highly vulnerable group, persistently delaying payment of bills and cutting basic food consumption to below three meals per day were the only options remaining, except for the desperate measure of selling property. They had few financial stores left and were no longer creditworthy at local shops:

“I have stopped buying milk powder for my daughter because we don't have the money – it costs Rs.89 and lasts five days...She is asking but I can't give. If we buy this we don't have enough money for food on that day.” (Selvaraja).

“We're often hungry these days and eating only one meal a day...only tea for breakfast and we can't even have milk tea. If we do have breakfast it's a quarter loaf per person, not a half...we eat fish or meat only occasionally” (Sumithra).

In contrast, stable households had not started to cut spending on basic food items (all households continued to eat well), but had begun to delay spending on water and electricity bills because these were items that could be put off. For example Raja and Nishanthi had not paid electricity bills for several months and these had accumulated to

over Rs.1,000 when research finished. Amali had delayed payment on a water bill (Rs.700) and had not paid her children's school sports day contribution and fees for having the school painted. Rani was also delaying payment of bills.

One household in this group (Geetha), however, had started to cut food consumption. This was both because of high financial illness cost burdens the household incurred over the last three months of research, and because monthly income levels had started to decline at the same time Geetha was ill, due to less work availability (Figure 6.5). In response the household had made lasting cuts to consumption of fish and meat (all members cut their consumption), and the electricity bill had accumulated to over Rs.1,000:

“It was very difficult last month because of all the expenses... Since I came out of hospital my husband has been doing the shopping...he has not brought meat or fish from the market because it is the most expensive thing, no.” (Geetha)

Improved households, with the exception of Mayori (Case study box 6.12), did not need to adopt strategies of delaying payments on bills (utilities, school), or cutting food consumption.

Case study box 6.12: Rising costs of living affect all households

Despite the fact improving households had surplus income to invest, not all were without financial difficulties. The rising cost of living had also started to affect a few of these households, despite their robustness, particularly Mayori's household, which had reliable but relatively low income flows. In the last month of the research Mayori had also complained about rising prices. Although not taking the more drastic step of cuts to food consumption, they had started delaying payments:

“In the last two weeks it has been very difficult... we ate less meat and fish because we have not had enough money. The main problem is the rising cost of living – it goes up and up but our salaries stay at such a low level – I get paid Rs.1500 as a teacher – what can you buy with that these days?” (Mayori).

Due to payment delays, after eight months their electricity bill had accumulated to Rs.1,800, and they had not yet paid Rs.425 for school fees, Rs.200 for the school sport's meet, and last month's school van bill of Rs.550.

6.5 Summary and conclusion

This chapter traced the links between illness cost burdens and changes to household livelihood. Chronic or acute ill-health had contributed significantly to the impoverishment of four households before research started, and one household was more vulnerable due to illness although had not undergone processes of impoverishment. Just as ill-health had caused impoverishment, so other case studies indicated that good health had been a factor enabling household economic development.

The degree of household vulnerability at the start of research strongly influenced the direction of household livelihood change over the eight month research period (see Figure 6.3 and Table 6.5).

Highly vulnerable households with moderate illness cost burdens (third survey quartile) or high cost burdens (upper quartile) declined. The four households that declined all did so because they were highly vulnerable to general processes such as the rising cost of living and increasing insecurity of work, and more specific processes or events that caused loss of income, including chronic or acute illness. Illness had caused three of these households to be in a highly vulnerable situation when research started, either through long term chronic illness and incapacitation of a worker that had caused loss of work and income (Jayasinghe and Valli [Box 6.1 and 6.3]), or through previous accidents and high illness costs that had caused heavy debts and asset depletion (Sumithra [Box 6.2]).

Over the eight months of research the continuing decline of Valli and Jayasinghe was, in particular, linked to the impact of long term illness on their most important asset, human capital. High illness cost burdens therefore contributed to the decline of these two highly vulnerable households both before and over the eight months of research (Box 6.7).

With respect to the other two households that declined, moderate illness cost burdens did not play a major role in their decline over eight months. Other factors played a more important role in the decline of Selvaraja and Sumithra:

- Selvaraja's decline was characterised by depletion of financial assets, small increases in debt, and cuts to basic food consumption, but these strategies were caused by general processes such as rising costs of living and growing insecurity of work for the sole income earner.
- Sumithra's household's decline was linked to its highly vulnerable situation caused by previous accidents and high illness costs, but continuing decline over the eight months was directly linked to another shock: the main income earner was suspended from work for disciplinary reasons.

Less vulnerable households with moderate or high cost burdens remained stable. The group of households that remained stable were less vulnerable because their income was higher, and more robust when faced with illness-related wage losses because there were more workers in the household. However, the two exceptions were Geetha and Nimal, which were vulnerable in terms of labour and income insecurity and faced the highest illness cost burdens in the group. However, despite these high cost burdens they were less vulnerable than those that declined and remained stable because they had other assets to cope with illness costs: either financial assets (Geetha) or social assets (Nimal). However, both these households remained vulnerable to decline in the future: although Nimal 'coped' it was at a level of no income and continuing vulnerability to further shocks; and Geetha's household was more vulnerable to further shocks because they had depleted financial assets and its income remained low and insecure.

Robust households with moderate or high cost burdens remained stable or improved despite these burdens. Robust households were able to manage moderate and high illness cost burdens. Their robustness stemmed largely from stronger human capital (more secure and better paid jobs, more workers per household), and also stronger financial and social assets.

This chapter assessed the links between illness cost burdens, coping strategies and livelihood change, and has shown that some households with moderate or high illness cost burdens were not able to cope and declined (or continued to decline), while others were more able to cope and remained stable or improved (or continued to improve).

This assessment provides an important foundation for subsequent analysis of the factors that mediated these livelihood impacts, with respect to material assets (Chapter 7), the health system (Chapter 8), and social assets (Chapter 9).

Chapter 7: Meeting basic needs and managing illness costs: the role of material assets

7.1 Introduction

This chapter analyses the material assets (mainly income and financial assets) available to households, and the way these material assets are used or managed to meet basic needs and cover illness costs¹. The analysis is rooted in the conceptual approach to ATP outlined in Chapter 1 (section 1.2.1), in that it addresses the following questions:

- are levels of income, when people can work, adequate to meet the costs of minimum basic needs and the additional costs of health care (section 7.2)?
- do they have enough income to meet the combined expenses of other necessities such as clothes, debt repayments, education or electricity bills (section 7.2)?
- how do income fluctuations affect household ability to meet minimum basic needs, health care costs and other expenses (section 7.3)?
- how do financial management practices, in particular use of financial assets and spending patterns, influence household ability to meet basic needs and health care costs (section 7.4)?

The chapter primarily addresses objectives 2, 4 and 5: it describes the types of material asset strategies adopted by households when faced with illness costs; identifies factors which make households robust or vulnerable to illness costs, focusing on material assets; and develops conceptual understanding of ATP, by applying the basic needs approach outlined in Chapter 1.

The chapter's analysis of ATP uses the definition of minimum basic needs established in Chapter 3 (section 3.6.3), to evaluate whether household incomes were adequate over the eight month research period to meet basic needs, and to assess whether any income remained to meet the costs of health care.

In this chapter a household that cannot meet minimum basic needs is said to be in a situation of *financial stress*. The research found that financial stresses arise from: (a) a rise in expenses (including illness costs); (b) a fall in income (also possibly due to

¹ The role of social assets is examined in Chapter 9.

illness), and; (c) poor management of income, in particular spending patterns that leave inadequate income for minimum basic needs.

These three sources of financial stress are used as a basis for structuring the chapter into three main sections:

- Section 7.2: Are levels of income, when people can work, adequate to meet the costs of minimum basic needs, and the additional costs of health care? Do they have enough income to meet the combined expenses of other non-daily necessities such as clothes, debt repayments, education or electricity bills?
- Section 7.3: How do income fluctuations, particularly losses due to illness or other factors, affect household ability to meet minimum basic needs and health care costs?
- Section 7.4: How do financial management practices, in particular use of financial assets and spending patterns within the household, influence household members' ability to meet basic needs and health care costs?

The data used in this chapter to answer these questions are from the case study households.

7.2 Meeting the financial costs of illness: cash availability when workers can work

This section assesses whether income levels were adequate to pay for minimum basic needs, *in situations when workers could work and therefore household income levels were near their full potential from existing jobs*. In other words it puts to one side, for the moment, the important questions of work security and wage losses due to illness which can generate serious ATP problems (see section 7.3). Household income and spending patterns are first analysed on a daily basis, because for most households wages were paid daily and cost burdens had to be managed with only a day's wage as disposable income (see Chapter 4). Income and spending patterns are then analysed on a monthly basis, since this level of aggregation is necessary to analyse patterns over eight months.

7.2.1 When workers can work: daily income and spending patterns

For each case study household Figure 7.1 plots the difference between potential daily income (when income earners worked) and the amount needed to purchase a package of

daily minimum basic needs². Overall, households that improved had a daily income surplus after buying daily minimum basic needs, compared to declined households that faced the severe daily budget constraints (close to zero or negative). The latter group's lower daily income levels account for these deficits, illustrated by Figure 7.2 which selects two households from each group to show actual income and spending figures.

Among households that declined, Jayasinghe's low income was the direct result of long term illness and loss of work, and Sumithra's inadequate income was partly the result of high debt repayments due to a series of accidents that incurred high financial costs (cut directly from husband's salary). Consequently these households had to cut food consumption to below three meals a day and often obtained food on credit from shops or borrowed money. Because these households did not have surplus cash, it took only a relatively small additional expense, such as new school shoes or a visit to a private doctor, to cause financial stress and trigger cost management strategies. Illness was therefore a constant concern for households that declined.

The daily financial struggle faced by these households is illustrated by the case of Selvaraja. The family was dependent on the husband's daily wage of Rs.200 per day. After he spent Rs.50 on his own transport, snacks and cigarettes, he gave his wife Rs.150 at the end of the day which she used to purchase the family's needs. The household's spending on daily, weekly and monthly necessities is set out in Table 7.1.

Table 7.1: Struggling to meet minimum basic needs: Selvaraja's household budget

Daily spending	Rs.	Weekly spending	Rs.	Monthly spending	Rs.
Rice	36	milk powder	87	electricity	80
bread	16	meat/fish	50	water	40
sugar	8	eggs	18	clothes	40
Tea	5	dried fish	30	social events / visits	66
coconut	12	matches	10		
vegetables	25	spices	20		
lentils	12	kerosene	10		
toothpaste	3	washing powder	13		
soap	12				
mosquito coil	6				
<i>husband's expenses</i>	<i>50</i>				
firewood	10				
SUB TOTAL	195		238		226
		+ daily expenses	1365	+ daily expenses	5850
				+ weekly expenses	952
TOTAL SPENDING: per day	195	per week	1603	per month	6922
INCOME: per day	200	per week	1400	per month	5500

² Daily minimum needs (see Chapter 3) are defined as food for 3 meals, fuel and transport.

Figure 7.1: Daily income compared to amount needed to meet minimum basic needs

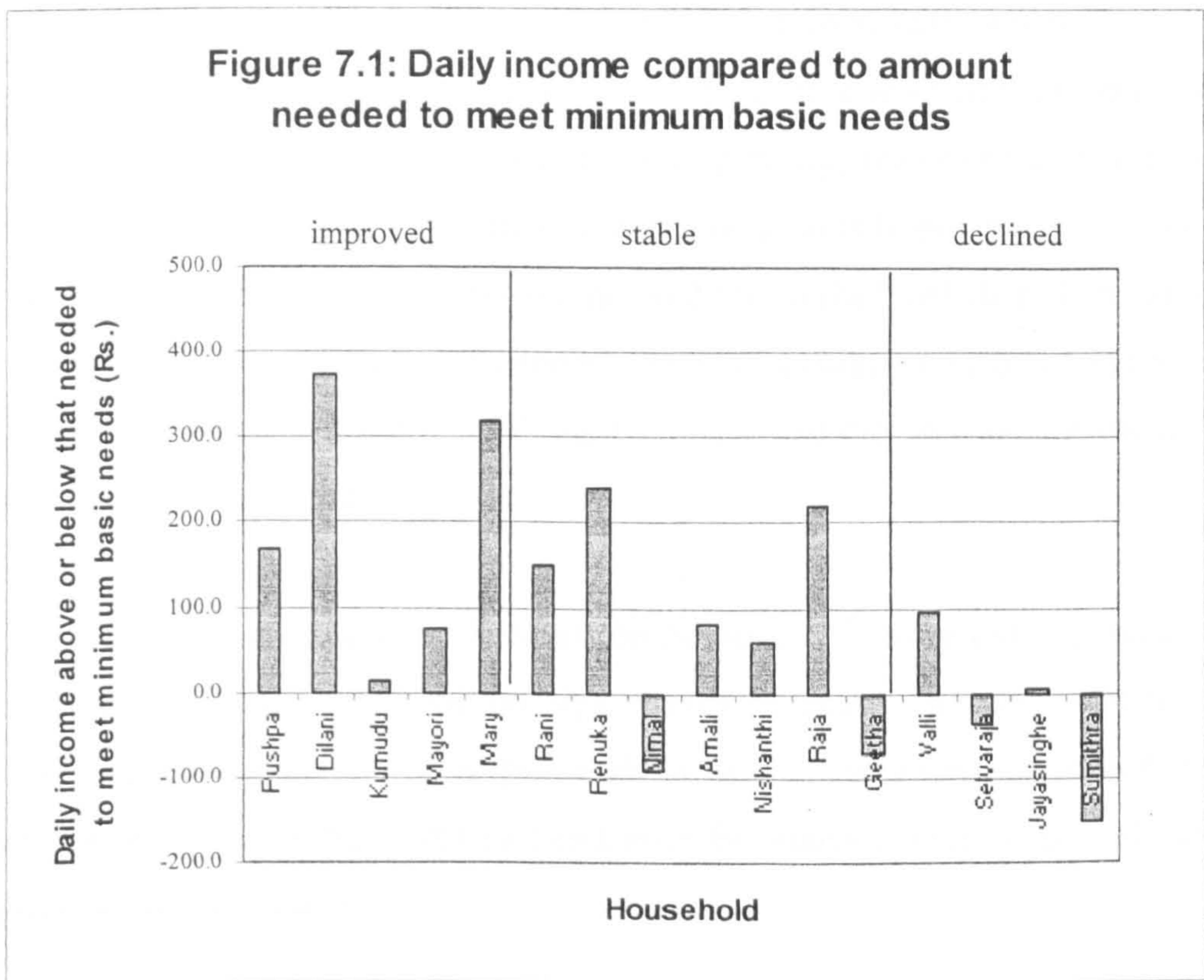
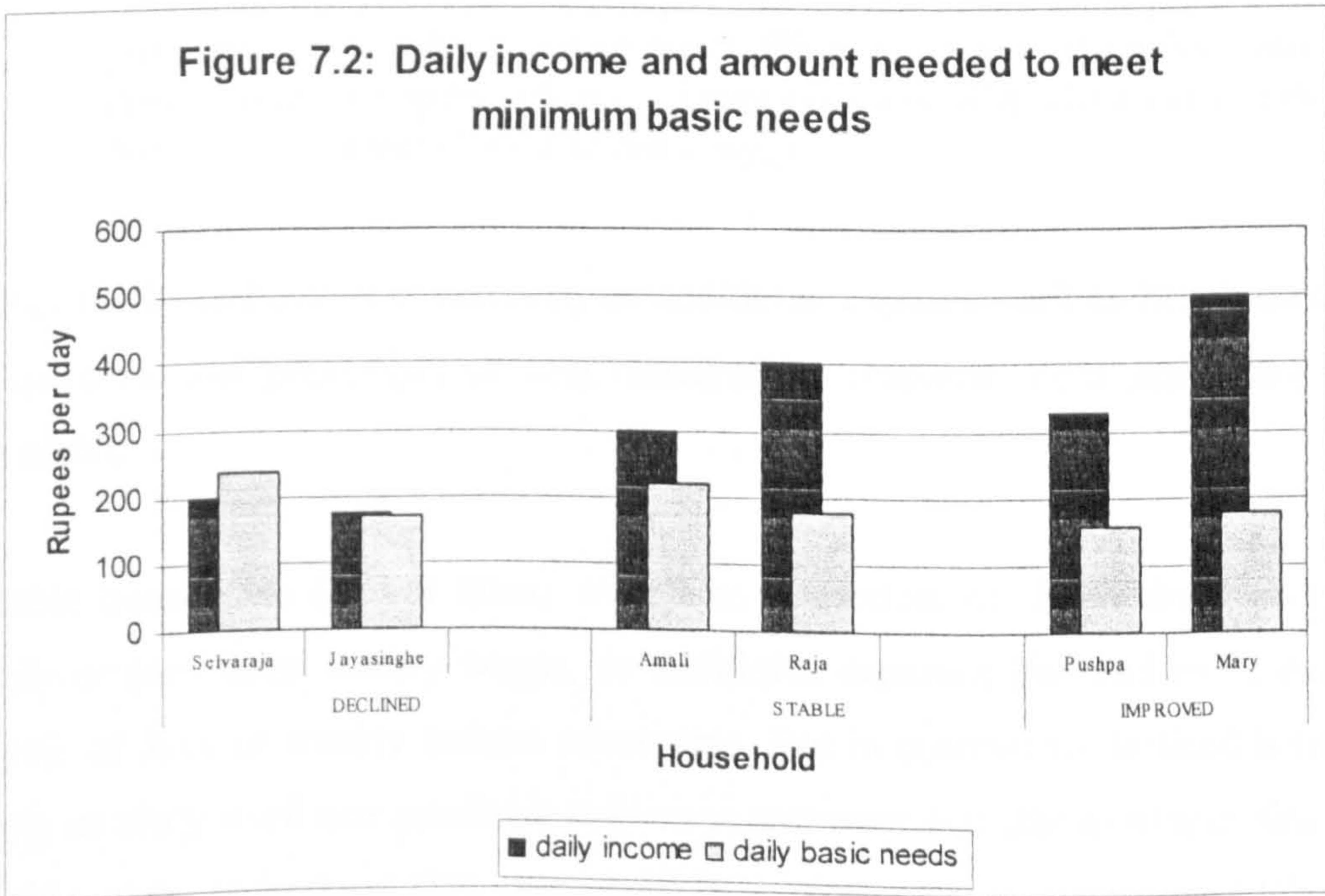


Figure 7.2: Daily income and amount needed to meet minimum basic needs



Spending on daily food, firewood, mosquito coils and the husband's expenses came to Rs.195 per day, which absorbed virtually all the day's wages. But in addition there were items bought on a weekly basis or every few days, such as milk powder for the young daughter, meat or fish, and washing powder. Once these were added to expenses, weekly income (Rs.1400) fell short of weekly spending, and over the eight month research period this forced the wife to cut spending on milk powder, meat and fish, and to increase the amount of food bought on credit from the local shop. In addition, when monthly electricity and water bills and less regular spending on clothes and social activities are added to the cost of living, the household monthly income deficit was about Rs.1400 per month.

The aforementioned spending demands on Selvaraja's income did not include education and health care costs, nor any housing repairs or debt repayments which might arise. Clearly the household had no surplus cash to pay for these necessities, and therefore the implications of even minor illness costs must be analysed with these daily and monthly budget situations in mind:

"We have to pay Rs.75 each for the boys' school fees plus Rs.300 for the painting for the school, but we can't. We need to go to the school and explain we cannot pay. We spend all our money on food. Why did I get married? School books are expensive" (Selvaraja's wife).

Thus for households that declined, an additional expense such as health care inevitably required a cost prevention or cost management response, even when daily work was available.

Stable households (except Rani) were also dependent on daily labour and were paid daily or sometimes weekly wages, so additional expenses also had to be considered in terms of daily or weekly budget constraints. But in contrast to declined households, *as long as daily work was available and no wages were lost due to illness*, this group had higher incomes because they were paid more (often more experienced labourers with contacts in the labour market, involved in longer term building contracts) and had more workers in the household. Consequently for most households in this group daily income was high enough to cover minimum daily basic needs, with varying levels of surplus cash on a daily basis (see Figures 7.1 and 7.2): from Rs.58 per day for Nishanthi to

Rs.241 for Renuka, which was, in theory, available for other essential items such as health care and education³.

Two exceptions in this group were Nimal and Geetha, who had low daily incomes due wholly or partly to illness: Nimal's household earned no income due to his long term illness; and Geetha's household income was inadequate because her husband had a low daily wage (Rs.100) and she could not work because of her 'womb problems' and tiredness. What distinguishes these two households from those that declined, however, was their ability to cope with these income deficits due to their material or social assets. All improved households had surplus daily income after basic needs had been met (Figures 7.1 and 7.2) and were able to pay for most common illness events without financial stress or cost management strategies. Kumudu's daily surplus income, however, was only Rs.14, so she could not do *seetu* and had to mobilise financial stores (normally pawning jewellery) when additional expenses were incurred.

7.2.2. Monthly income and spending patterns

This section examines monthly spending patterns in more detail by household group, *during months when households lost no or little income.*

Households that declined

Monthly income was too low to meet minimum daily basic needs

The previous section showed that even if breadwinners could work everyday in the month, monthly income was not enough to meet minimum basic needs:

“There are many very poor households, who can't even eat...Around here there are many people who just live for that day (ee da jivath wenne puluwan). They can buy food only” (Nishanthi).

This affordability problem is illustrated by the case of Jayasinghe in Table 7.2. The high proportion of income spent on food (91.3%) indicates severe budget constraint, and left only a small amount of money for other daily needs. Consequently spending on fuel, transport, cleaning items and mosquito coils took spending to over 100% of income (109.3%), an income shortfall covered by credit from shops and sellers. In addition, the

³ In practice this surplus was not necessarily available to women who did the shopping because it went towards the husband's personal spending, which in Renuka's case was on heroin (see below).

6.0% of income spent on cigarettes and alcohol took the total cost burden of daily items up to 115.3% (Table 7.2).

Only one household among those that declined (Valli) *occasionally* earned income above minimum basic needs, but this happened in only two out of eight months. During month 1, for example, Table 7.3 shows Valli had enough income to pay for routine daily needs, spending only 61% of income on food, fuel, transport and soap, and in theory leaving 39% free to pay for any additional necessities such as health care, clothes and debt repayments, or to save for future expenses. Unfortunately, in practice nearly all this surplus income (37%) was spent by the husband on cigarettes and alcohol (Table 7.3). The absorption of a large proportion of household income by male spending on cigarettes, alcohol and other narcotics was a common phenomenon, *and had serious implications for ability to pay for daily and non-daily necessities* (see section 7.4).

Even minor financial costs of illness were beyond the scope of monthly budgets

“Many of the people who live here have hand to mouth existence. They do not have a way of going to get medicine. If they have to go to the general hospital they are unable to go to work. But they cannot pay for a private doctor. Therefore they bring a tablet of Panadol and take it just for that moment” (FGD1Obe).

“Families that earn Rs.2,000 or Rs.3,000 per month have enough for food, but no money for other things. How can they make their house? And what if they get ill? They have to borrow money. Medicine will cost Rs.150 or Rs.200...that’s a lot of money but then they don’t get better and have to go to the general hospital and maybe not work for a week! It’s a terrible life” (Mary)

As the financial cost burden of daily necessities was usually about 100% for households in this group, they did not have enough money to pay for any non-daily or unexpected necessities. In the case of Jayasinghe, for example, the moderate treatment cost of Rs.40, only about 1% of that month’s income, was an additional cost burden which was beyond their cash resources, and which they managed by obtaining food on credit. If illness had been more serious and the costs higher, they would have had to take more drastic action:

“When my sister’s son gets fever we usually take him to the private doctor because he’s good and quick... We don’t have money but that costs more than Rs.100 so we have to borrow on interest of course” (Jayasinghe’s mother).

Table 7.2: Jayasinghe – spending patterns in month 1 when income was relatively high

Income and expenditure	Amount	Coping strategies
Income	Rs.4700	
Expenditure on:		
1. Daily necessities		
food	4293	91.3
fuel	290	6.2
transport	280	6.0
cleaning / hygiene	216	4.6
mosquito coils	60	1.3
drugs (cigs & bulat)	280	6.0
spending sub-total	5419	115.3
2. Non daily or unexpected necessities		
rent / mortgage	0	0.0
health care	40	0.9
education	300	6.4
electricity	0	0.0
water	0	0.0
clothes	0	0.0
social	0	0.0
household goods	0	0.0
debt repayment	0	0.0
spending sub-total	340	7.2
3. Other items		
savings or <i>seetu</i>	0	0.0
jewellery	0	0.0
productive assets	0	0.0
telephone bill	0	0.0
other	0	0.0
sub-total	0	0.0
TOTAL SPENDING	5759	122.5

Table 7.3: Valli – spending patterns in month 1 when income was relatively high

Income and expenditure	Amount	Coping strategies
Income	Rs.6600	
Expenditure on:		
1. Daily necessities		
food	3568	54.1
fuel	96	1.5
transport	192	2.9
cleaning / hygiene	180	2.7
mosquito coils	0	0.0
drugs (cigs, arrack, bulat)	2420	36.7
spending sub-total	6456	97.8
2. Non daily or unexpected necessities		
rent / mortgage	0	0.0
health care	525	8.0
education	0	0.0
electricity	0	0.0
water	0	0.0
clothes	0	0.0
social	100	1.5
household goods	0	0.0
debt repayment	0	0.0
spending sub-total	625	9.5
3. Other items		
savings or <i>seetu</i>	0	0.0
jewellery	0	0.0
productive assets	0	0.0
telephone bill	0	0.0
other	0	0.0
sub-total	0	0.0
TOTAL SPENDING	7081	107.3

The combined cost burden of non-daily necessities was beyond monthly budgets

For declined households, when other non-daily necessities are included in cost calculations the combined cost burden goes beyond monthly household income, even when all workers are earning and income is at its highest. This is because these types of item usually generate 'lumpy' expenses well beyond daily income. Again the case of Jayasinghe can be used to illustrate this problem of combined cost burdens. In addition to a moderate treatment cost, Rs.300 had to be spent on his nephew's school uniform, an additional cost burden of 6.4% which could only be met by borrowing from a moneylender (Table 7.2).

Households that were stable

Monthly income was enough to meet daily basic needs

In general when monthly incomes were at their highest stable households had enough money to buy daily necessities, and had cash remaining for non-daily necessities and other items, as illustrated by the case of Raja in Table 7.4. Compared to the previous group, stable households tended to spend a lower proportion of income on food (about 50%), which indicates a less severe budget constraint, and total spending on daily needs amounted to only 60-65% of that month's income. Even when Raja spent 7.5% of month 3's income on narcotics, about 27% of income was still available for other necessities such health care, clothes and debt repayments (Table 7.4).

Two exceptions in this group were Nimal and Geetha, households that had low incomes and could not meet daily needs, but that coped through reliance on social assets or savings.

Moderate financial costs of illness were within the scope of monthly income

For stable households the financial costs of most common acute or chronic illnesses were usually within the scope of household income in months when earnings were maximised. This was the case for Nishanthi in month 4, for example: the household spent 60% of the month's income on daily needs, and so had money available to spend Rs.710 (8.6% of income) on regular treatment for Nishanthi's diabetes, buying tablets from a private pharmacy for two months ("*too busy to go to the government hospital clinic*") and paying for a private blood test.

Table 7.4: Raja – spending patterns in month 3 when income was high

Income and expenditure	Amount		Coping strategies
Income	Rs.8620		
Expenditure on:			
1. Daily necessities	Rs.	% of income	
food	4768	55.3	borrowed Rs.300 from Women's Bank
fuel	280	3.2	
transport	392	4.5	credit from shop Rs.300
cleaning / hygiene	198	2.3	
mosquito coils	0	0.0	
drugs (cigs, arrack)	650	7.5	
spending sub-total	6288	72.9	
2. Non daily or unexpected necessities			
rent / mortgage	0	0.0	delayed paying bill
<i>health care</i>	<i>68</i>	<i>0.8</i>	
education	0	0.0	
electricity	0	0.0	
water	0	0.0	borrowed Rs.500 from Women's Bank
clothes	1325	15.4	
social	100	1.2	pawned jewellery Rs.800
household goods	0	0.0	
debt repayment	1010	11.7	
spending sub-total	2503	29.0	
3. Other items			
savings or -----	1670	19.4	
jewellery	0	0.0	
productive assets	0	0.0	
telephone bill	0	0.0	
other	0	0.0	
sub-total	1670	19.4	
TOTAL SPENDING	10461	121.4	

But the combined cost burden of various non-daily or irregular necessities was well beyond monthly budgets

For stable households, although a single item such as treatment costs could be covered by that month's income, the combined burden of various necessities took spending beyond monthly budgets, even when income was maximised. This point is illustrated by the case of Raja in Table 7.4: cash had to be allocated to clothes and debt repayments, which took spending to over 100% of income. Other items which often took spending beyond monthly budgets were education, weddings and funerals. Thus for stable households combined cost burdens often required cost management strategies such as pawning jewellery and borrowing (for example see Table 7.4), even when work was available and earnings relatively high.

Even 'non-essentials' such as seetu payments become regular spending commitments and health care costs have to be viewed as additional to these

Once a person joins a *seetu* group they are obliged to make regular payments, even if they have to borrow or pawn valuables to fulfil this commitment (as in the case of Raja), so in effect *seetu* payments also become a necessity. Raja and Nishanthi, for example, had to allocate 19.4% and 24.3% of income to *seetu* payments respectively, and the combined burden of all necessities plus *seetu* took spending levels well beyond their income (Table 7.4).

Households that improved

In general these households had higher disposable incomes than the other two groups (with the exception of Kumudu), so that when incomes were at their highest:

- monthly income was enough to meet basic needs;
- moderate or even relatively high financial illness cost burdens (of up to 10-15%) were within the scope of monthly income;
- the combined cost burdens of most necessities were within the scope of monthly income;
- but not all lumpy spending could be financed through income.

These features of ATP for improved households are illustrated by the case of Pushpa in month 2 (Table 7.5). This household's spending on daily needs was 60% of income or lower, leaving money to spare for other necessities. So Pushpa's relatively high financial illness cost burden of 10% that month could be financed with available income, and even the combined cost burdens of health care, education, clothes and debt repayments were within the scope of that month's budget.

Nevertheless, because *seetu* payments are also considered a necessity they have to be added to household spending obligations, and in Pushpa's case this pushed spending beyond the monthly budget:

"Seetu is good....but (it) can be a problem for me when my husband is ill and cannot work...Last week he had that tooth out, then a bad cough with phlegm and breathing problems so did not work for four days... For the phlegm he went to the private doctor...In addition my son had a school trip...I had to pay the three wheel driver who takes them to school, and tuition fees...How long would it take telling you about all the things I have to find money for?" (Pushpa).

In other words health care costs cannot be seen in isolation, but as additional to a range of other expenses.

Table 7.5: Pushpa – spending patterns in month 2 when income was relatively high

Income and expenditure	Amount		Coping strategies
Income	Rs.8300		
Expenditure on:			
1. Daily necessities	Rs.	% of income	
food	4220	50.8	food on credit from shop
fuel	280	3.4	
transport	132	1.6	
cleaning / hygiene	232	2.8	
mosquito coils	126	1.5	
drugs (cigs)	508	6.1	
spending sub-total	5498	66.2	
2. Non daily or unexpected necessities			
rent / mortgage	0	0.0	pawned jewellery Rs.850
<i>health care</i>	856	10.3	
education	590	7.1	
electricity	0	0.0	
water	0	0.0	
clothes	440	5.3	
social	0	0.0	
household goods	160	1.9	
debt repayment	600	7.2	
spending sub-total	2646	31.9	
3. Other ('less essential') items			
savings or <i>seetu</i>	2570	31.0	borrowed Rs.600 from friend
jewellery	0	0.0	
productive assets	0	0.0	
telephone bill	0	0.0	
other	0	0.0	
sub-total	2570	31.0	
TOTAL SPENDING	10714	129.1	

7.2.3. When workers can work: summary of cash availability and cost burdens relevant to ATP

In situations when breadwinners can work and earn their full potential wages, key findings that emerged from the above analysis of income and spending patterns relevant to ATP from a basic needs perspective are set out in Table 7.6.

Table 7.6: Features of ability to pay when workers can work

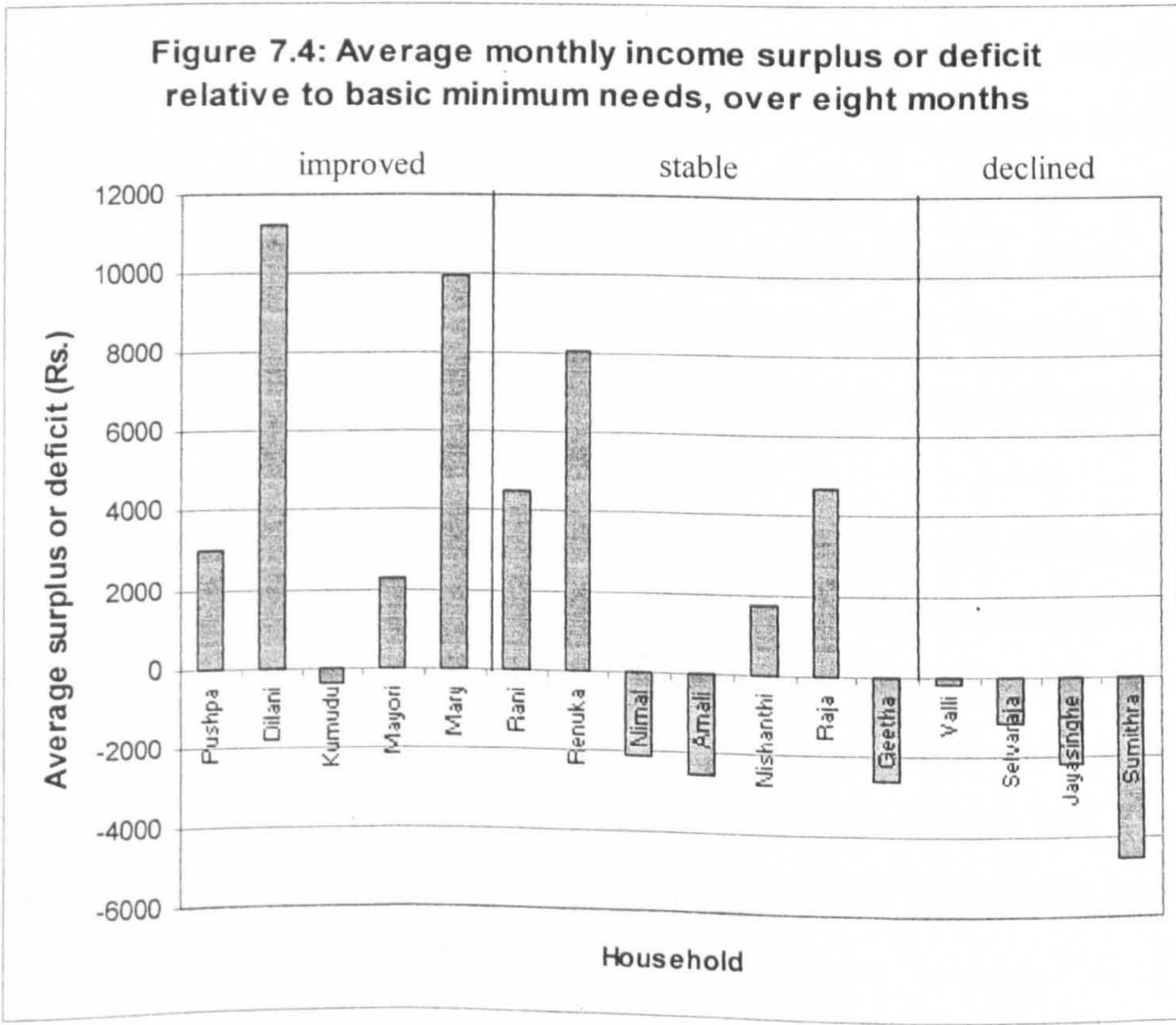
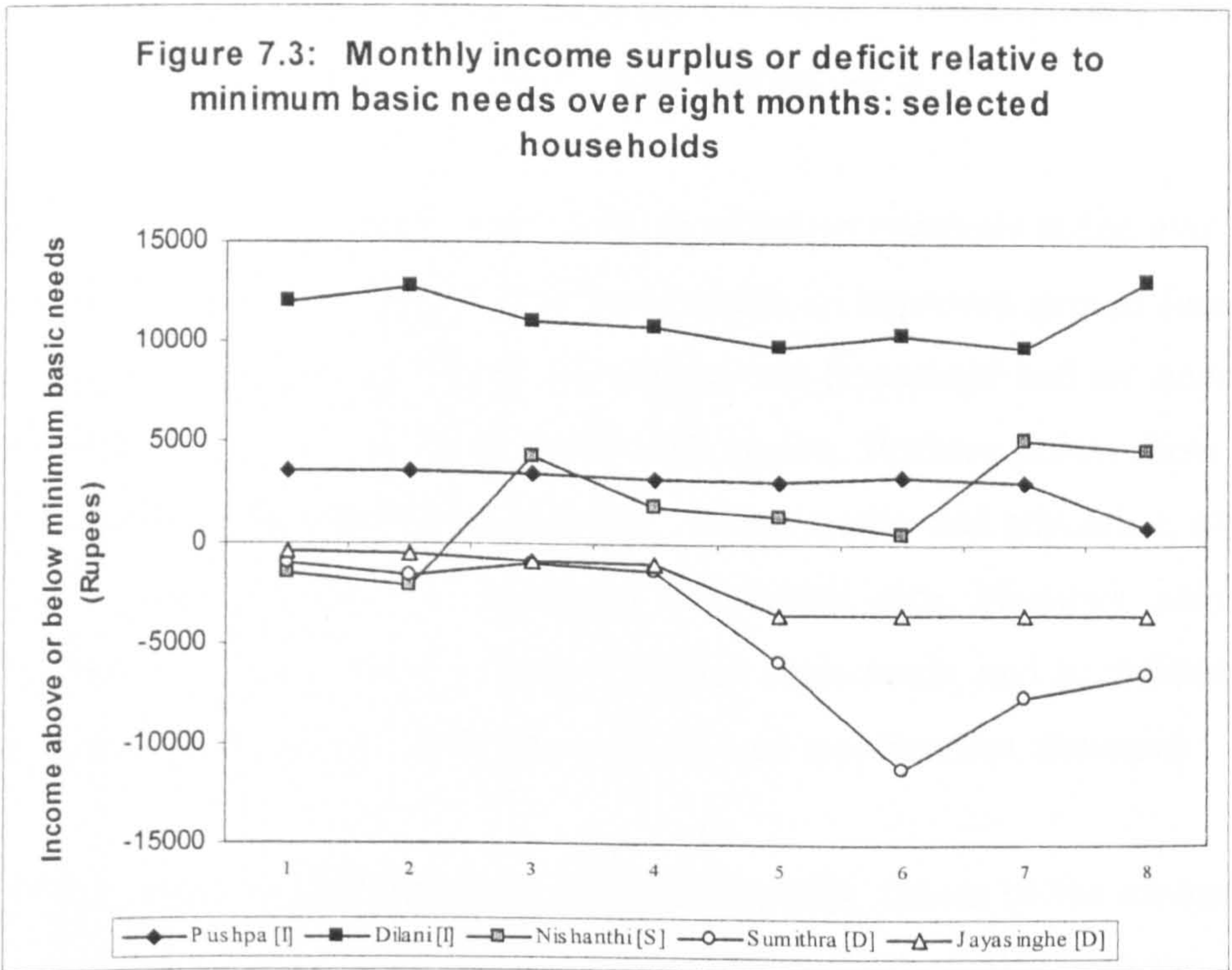
Type	Features
Declined (n=4)	<ul style="list-style-type: none"> • When workers can work, monthly income is too low to meet daily basic needs, a problem exacerbated by male spending on cigarettes and alcohol. • Even minor financial costs of illness are beyond the scope of monthly budgets, and require a cost prevention or cost management response. • The combined cost burden of non-daily or irregular necessities is beyond monthly budgets.
Stable (n=7)	<ul style="list-style-type: none"> • When workers can work, monthly income is enough to meet minimum basic needs. • Moderate financial costs of illness are within the scope of monthly income. • But the combined cost burden of various non-daily or irregular necessities is well beyond monthly budgets and forces cost management strategies. • Even 'non-essentials' such as <i>seetu</i> payments become regular spending commitments and health care costs have to be viewed as additional to these.
Improved (n=5)	<ul style="list-style-type: none"> • Monthly income was enough to meet basic needs. • Moderate or even relatively high financial illness cost burdens (e.g. 10–15%) were within the scope of monthly income. • The combined cost burdens of most necessities were within the scope of monthly income. • But not all lumpy spending could be financed through income.

Given that income-poor households, and in particular income-poor women, had little or no money to put towards health care spending after paying for daily needs, free or low cost government health services offered important financial protection for these people (see Chapter 8). Even for stable and improved households, the combined expenses for daily, non-daily or unexpected necessities left little or no cash to pay for health care, so that low cost health services were also an important source of financial protection for these groups.

7.3 When workers cannot work: meeting the costs of illness with insecure incomes

7.3.1 Overview of income fluctuations

The previous section does not tell the full story of household cash availability and ability to pay for basic needs: household income was often lower because work was unavailable or workers were incapacitated due to illness. Income fluctuations were a critical factor influencing vulnerability to financial contingencies, both directly (cash availability) and indirectly (ability to plan savings and invest in buffers). Key factors



that influenced income fluctuations were type of employment and the number of workers in the household. Most case study households were dependent on daily labour, and households dependent on one labourer's income were particularly vulnerable to the vagaries of the labour market or when breadwinners fell ill.

Figure 7.3 shows how income fluctuated or remained relatively stable over eight months for selected households from the declined, stable or improved groups (denoted as D, S or I in Figure 7.3). The figures show whether the household had an income surplus or deficit relative to minimum basic needs each month. Positive points show what income remained after basic needs had been met, except health and education, and so indicate income available to pay for education and health care. Negative points show that income was inadequate even to meet minimum basic needs, and so indicate no cash was available for health care or education without cost management strategies.

In general improved households had a steady surplus, shown by the examples of Pushpa and Dilani. In contrast declined households had a steady deficit, and this deficit tended to increase over time because they all faced growing insecurity of work and income losses. Sumithra's was the most extreme example of this decline, when household income dropped dramatically after month 4 because the husband was suspended from his regular job for six months. Stable households' income patterns over eight months were more mixed: three, like the improved households, had surplus income relative to basic minimum needs over the eight months (Rani, Renuka, Raja); three, like the declined households, had income deficits (Nimal, Amali, Geetha); and Nishanthi's income fluctuated above and below the minimum basic needs line (Figure 7.3).

Figure 7.4 shows the average monthly income surplus or deficit experienced by households over the eight months. All declined households faced an income deficit, with Sumithra facing the worst difficulties due to her husband's job loss. Among stable households, Amali suffered an average deficit despite daily surplus on good days, because her husband's work was irregular. But like Nimal and Geetha, Amali's household was able to cope much better than declined households because they had strong social assets (see Chapter 9).

The implications of these income fluctuations for ability to pay are considered in more detail below.

7.3.2 Income fluctuations and affordability problems

Lost wages due to illness or the unavailability of work were a more frequent cause of financial stress among households than additional expenses, especially in the case of declined households.

Households that declined

Fluctuating income and inability to meet minimum basic needs

Declined households experienced frequent, if not continuous, financial stress, mainly because of low and fluctuating incomes which were below the level needed to meet minimum basic needs. Income losses were the root cause of financial stress and these resulted from irregular work availability or incapacitation due to illness:

“If my husband stays at home we have to live on credit” (Valli).

“For the last five days my husband has not worked because of the rain... so we had to buy food and things on credit from the shop. Before he worked every day, there was a contract or something, a job for three or four months, but recently there have been days without work” (Selvaraja).

“Illness is something we are all scared of around here – how can we live without working? If my husband is ill we have to get money from somewhere for food and for the medicine, we have to borrow” (Selvaraja).

“Since my operation it has been difficult – we have to be careful with money. My mother works a few days each week. But some days she is too tired (Mother adds: “And some days it rains...yes, when it rains we have to borrow...” (Jayasinghe).

Vulnerability to income loss is illustrated graphically by the case of Valli in Figure 7.5, which shows actual income and lost income levels relative to minimum basic needs over eight months. The household suffered damaging income losses each month except month 1, due to illness (the wife was frequently unable to go to work because of her arthritis), and because her husband’s manual job became increasingly insecure after month 3. These losses took the household’s income level below that needed to meet minimum basic needs. For example in month 2 Valli lost 18 days work (Rs.1600) due to illness and in the same month faced high treatment costs (Rs.507 or 10.1% of income). This burden could not be met through normal income, and because Valli had pawned her last jewellery in the previous month to finance treatment costs (see Table 7.3), she had to borrow money from her employer, a moneylender and her son’s friend. From

month 4 onwards the husband lost considerable sums of money due to lack of work, especially in months 4 and 6 (Figure 7.5). The income peak in month 6 was because they rented out a room in their house and took a deposit from the tenant.

Wage losses exacerbate the problem of no cash to pay for treatment

For declined households, since income could not meet minimum basic needs, any loss of income combined with treatment costs placed budgets under severe strain, whether treatment cost burdens were moderate or high. In month 5, for example, Selvaraja's husband lost two days work (Rs.400): one day because of rain and one day because his shoulder was too painful for work. This generated financial stress on the two days concerned and the household had to get daily needs on credit from the local shop. Table 7.7 shows lost income that month meant daily necessities imposed a high cost burden (107%) which had to be financed through credit, cutting consumption of milk powder, meat and fish, and delaying payments on bills and debts.

Table 7.7: Selvaraja – spending patterns in month 5 when income was lost due to illness

Income and expenditure	Amount		Coping strategies
Income	5900		
Expenditure on:			
1. Daily necessities	Rs.	% of income	
Food	5345	90.6	cut consumption of food and other daily needs
Fuel	280	4.7	
Transport	260	4.4	credit from shop
cleaning / hygiene	240	4.1	
mosquito coils	96	1.6	
drugs / narcotics (betel)	90	1.5	
spending sub-total	6311	107.0	
2. Non daily or unexpected necessities			
rent / mortgage		0.0	borrowed Rs.500 from ex-employer
<i>health care</i>	350	5.9	
education	200	3.4	could not pay water bill which is accumulating (Rs.1400)
electricity	66	1.1	
Water		0.0	
Clothes		0.0	delay debt repayments to shop
Social		0.0	
household goods		0.0	
debt repayment		0.0	
spending sub-total	616	10.4	
3. Other ('less essential') items			
savings or <i>seetu</i>		0.0	could not redeem ring
jewellery		0.0	
productive assets		0.0	
telephone bill		0.0	
Other		0.0	
sub-total		0.0	
TOTAL SPENDING	6927	117.4	

Figure 7.6: Income fluctuations relative to minimum basic needs: the case of Amali

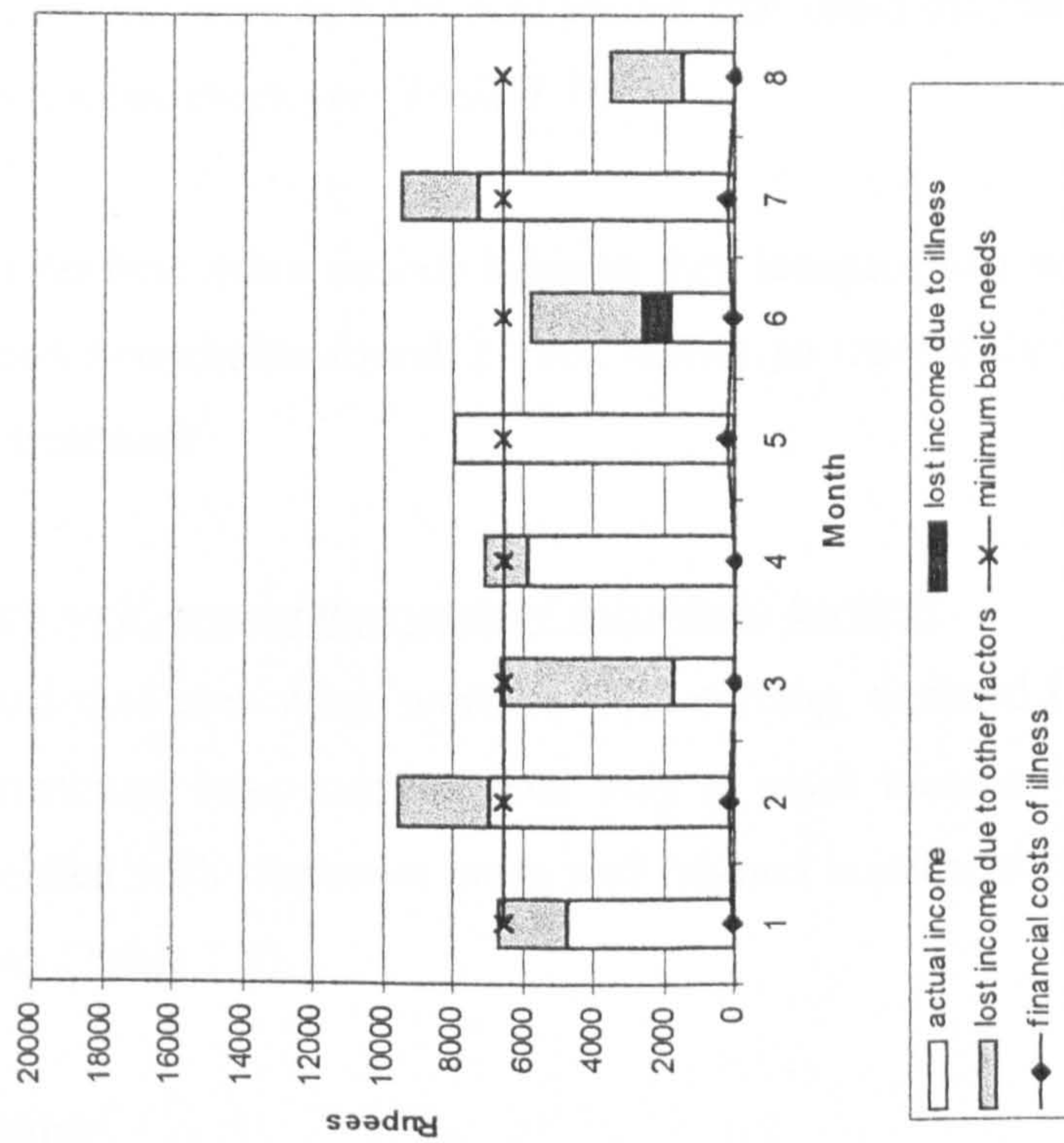
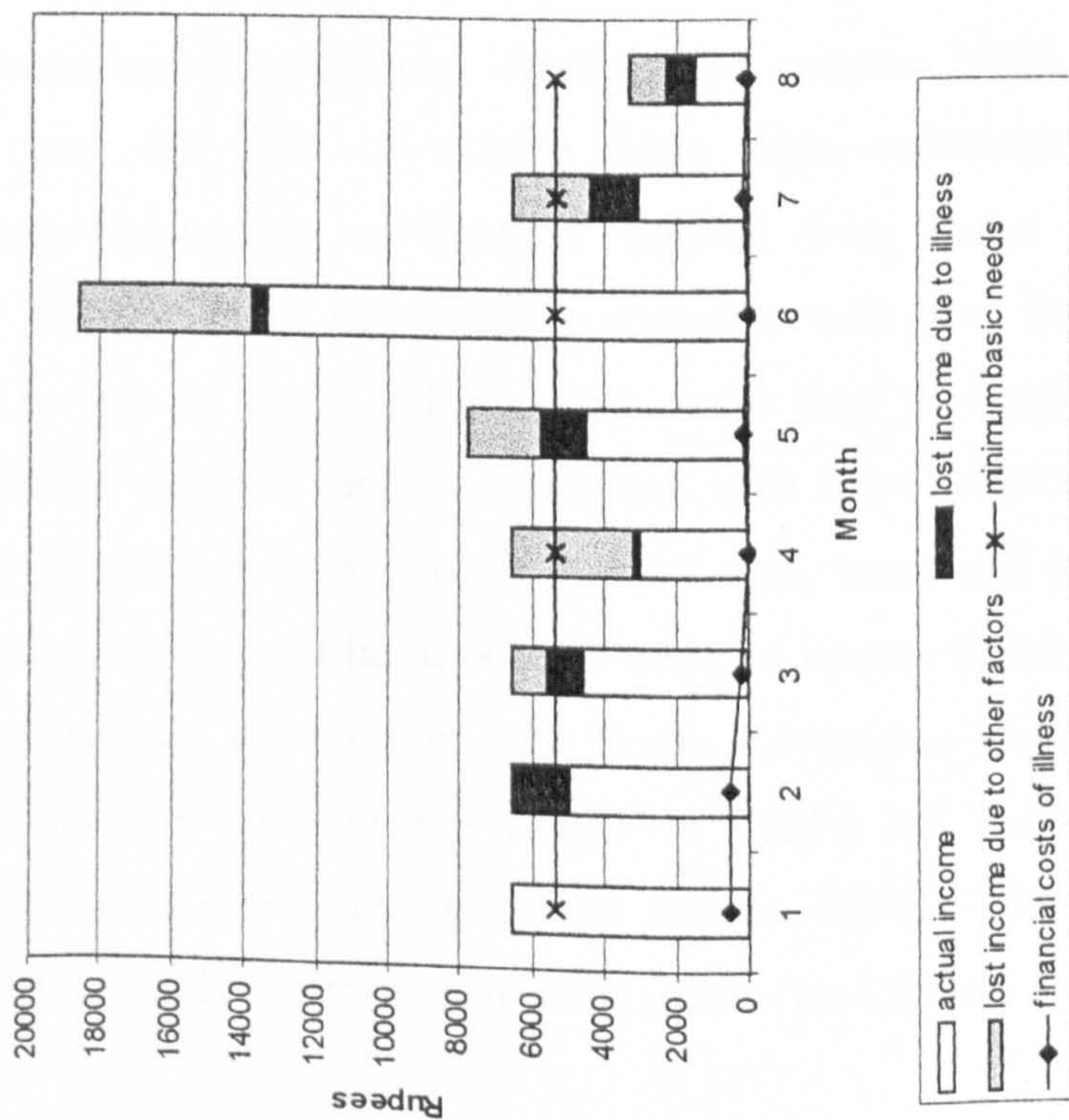


Figure 7.5: Income fluctuations relative to minimum basic needs: the case of Valli



In the same month the three children in the household suffered illness concurrently and Selvaraja took them to the government children's hospital, and her mother also sought treatment for toothache from a private doctor (see Chapter 5). Financial illness costs of Rs.350 (5.9% of monthly income) were an additional burden that could only be financed by borrowing from an ex-employer (Table 7.7).

When indirect illness cost burdens were serious because they incapacitated workers for prolonged periods, declined households found it even harder to meet daily needs and find extra cash to pay for treatment.

Combined cost burdens are well beyond the reach of household budgets

The previous section found that even when workers were earning, declined households could not pay for all minimum basic needs. Thus only a small income loss meant additional expenses associated with treatment were well beyond household budgets, as the case of Selvaraja shows (Table 7.7).

Households that were stable

Fluctuating income and basic needs

Among this group there were differing degrees of vulnerability to loss of work and income. Rani's household had a secure and constant income because her husband worked at the government harbour authority. At the other extreme Nimal could not work due to illness, and this lack of income made them vulnerable to other contingencies and totally dependent on financial support from better off family members (see Chapter 9). The other five stable households were also vulnerable to financial stress related to loss of work and income because they were dependent on daily wages, but to differing degrees. Geetha and Amali were more vulnerable to low and fluctuating income. Figure 7.6 shows that in Amali's case, household income was unreliable and often inadequate to meet basic needs. Persistent income deficits were due to the husband's lack of regular work rather than illness. Comparing Figures 7.5 and 7.6, Amali's household income situation was similar to Valli's, but the former was classified as stable because it could manage these income deficits without cutting consumption or depleting assets due to its strong social assets (see Chapter 9).

Other households in this group were less vulnerable to financial stresses caused by lost wages because they had more secure labouring jobs or more workers. For example

Figure 7.7 shows Raja's household frequently lost wages due to illness, but the household had enough cash to meet basic needs in all months.

Fluctuating income due to wage losses means in some months there is no cash to pay for treatment

Wage losses meant some households in the stable group did not have cash available to pay for basic health care. Table 7.8 shows that Amali's household faced a considerable income deficit in month 6 due to lost income from the husband's illness and insecure work (see also Figure 7.6). Even relatively low treatment costs imposed a burden of 4.2% which could not be met through available income.

Table 7.8: Amali – spending patterns in month 6 when income was lost due to illness

Income and expenditure	Amount		Coping strategies
Income	Rs.1800		
Expenditure on:			
1. Daily necessities	Rs.	% of income	
Food	946	52.6	food gifts from family
Fuel	300	16.7	credit from local shop (Rs.500)
transport	334	18.6	
cleaning / hygiene	322	17.9	borrowed Rs.3000 from work
mosquito coils	182	10.1	colleague
drugs (cigs, arrack)	420	23.3	
spending sub-total	2504	139.1	
2. Non daily or unexpected necessities			
rent / mortgage		0.0	could not pay money for sports day or
<i>Health care</i>	75	4.2	painting of the school
education	250	13.9	
electricity		0.0	delayed payments on water and
Water		0.0	electricity bills
Clothes	199	11.1	
Social		0.0	
household goods		0.0	
debt repayment		0.0	
spending sub-total	524	29.1	
3. Other ('less essential') items			
savings or <i>seetu</i>	1048	58.2	
jewellery		0.0	
productive assets		0.0	
telephone bill		0.0	
Other	125	6.9	
sub-total	1173	65.2	
TOTAL SPENDING	4201	233.4	

Less vulnerable households in the stable group rarely suffered wage losses that took income below the level needed to purchase minimum basic needs. However, an income just above the poverty line was not adequate protection against 'lumpy' treatment costs, especially when illness was quite serious and treatment costs were high. For example

Raja's household in month 1 lost 2 day's wages due to illness (Rs.350). Although a small income surplus remained in month 1 (see Figure 7.7), due to serious illness that month financial illness costs were Rs.905, a 16% cost burden which was beyond the household's budget. The household responded by cutting food consumption, borrowing Rs.200 from work colleagues, and Rs.700 from a moneylender at 20% interest.

Moreover, these monthly figures disguise the way illness cost burdens fall on household resources, since the burden is not spread over the month but falls on a particular day, usually necessitating coping strategies.

Combined cost burdens are well beyond the reach of household budgets

Fluctuating income meant that all stable households experienced at least one month, but usually more, when they could not meet all spending obligations without resorting to cost management strategies. Households more vulnerable to wage losses in this group, such as Amali, often had an income too low to meet all their spending commitments. Table 7.8 shows the household faced high combined cost burdens for education (13.9%), clothes (11.1%) and, in particular, *seetu* obligations (58.2%), because income was low in that month. Total spending was over twice their income (233%) and they had to borrow money and delay payments on school, electricity and water bills.

Even for stable households with a slightly higher income, a drop in income meant total spending obligations often went well beyond income, forcing them to pawn jewellery, borrow or cut consumption. For example Nishanthi's household in month 1 earned only 50% of its 'normal' income because the husband was still resting after a kidney operation. Consequently in month 1 total spending was three times the level of their income because:

- The household had to continue to pay for the grandson's school transport and private tuition costs (Rs.500), make *seetu* payments, and repay debts which imposed a combined cost burden of 71.8%.
- There was a family wedding that month which meant their son had to buy new clothes worth Rs.4000: "*these things have to be done even by getting into debt, they are social obligations (samajiye yuthukam)*" (Nishanthi); and they spent another Rs.1200 on transport and gifts. The costs of the wedding alone were greater than household income that month, and were financed by a large loan from the son's private sector employer.

- In addition, there were the regular financial costs of illness for her diabetes (tablets, urine test, transport), plus the costs of vitamin tablets recommended for her husband by the doctor following the operation.

Thus even the stable households with higher incomes were often close to the minimum basic needs poverty line and occasionally fell below it, and faced a combined cost burden well beyond their available income.

Households that improved

Fluctuating income and basic needs

With the exception of Kumudu, improved households earned income above that needed to purchase minimum basic needs, and their income was relatively constant over the eight months (see Figures 7.1 and 7.2 above).

Serious illness that incapacitates workers causes financial stress and forces cost management strategies

Higher and less variable incomes meant improved households could pay for the treatment costs associated with common acute and chronic illnesses such as fever, flu or diabetes. For example Figure 7.8 shows that Pushpa's household lost wages frequently due to illness, but despite these losses had enough cash to meet basic needs and surplus income to cover moderate financial illness cost burdens in all months except the last.

However, even improved households were vulnerable to more serious illness that incapacitates workers and causes high wage losses. Pushpa's situation in month 8 illustrates this vulnerability to more serious illness. In this month both earners were incapacitated due to illness, with the loss of Rs.3500 representing a wage cost burden of 38.5%. This income loss meant the household only had enough money to meet minimum daily needs that month. But at the same time the household faced a high financial illness cost burden of 20.4%, which was beyond their budget. These ATP problems were linked to the lost wages, not the financial costs of illness, and Pushpa had to pawn her valuable wedding ring.

Figure 7.8: Income fluctuations relative to minimum basic needs: the case of Pushpa

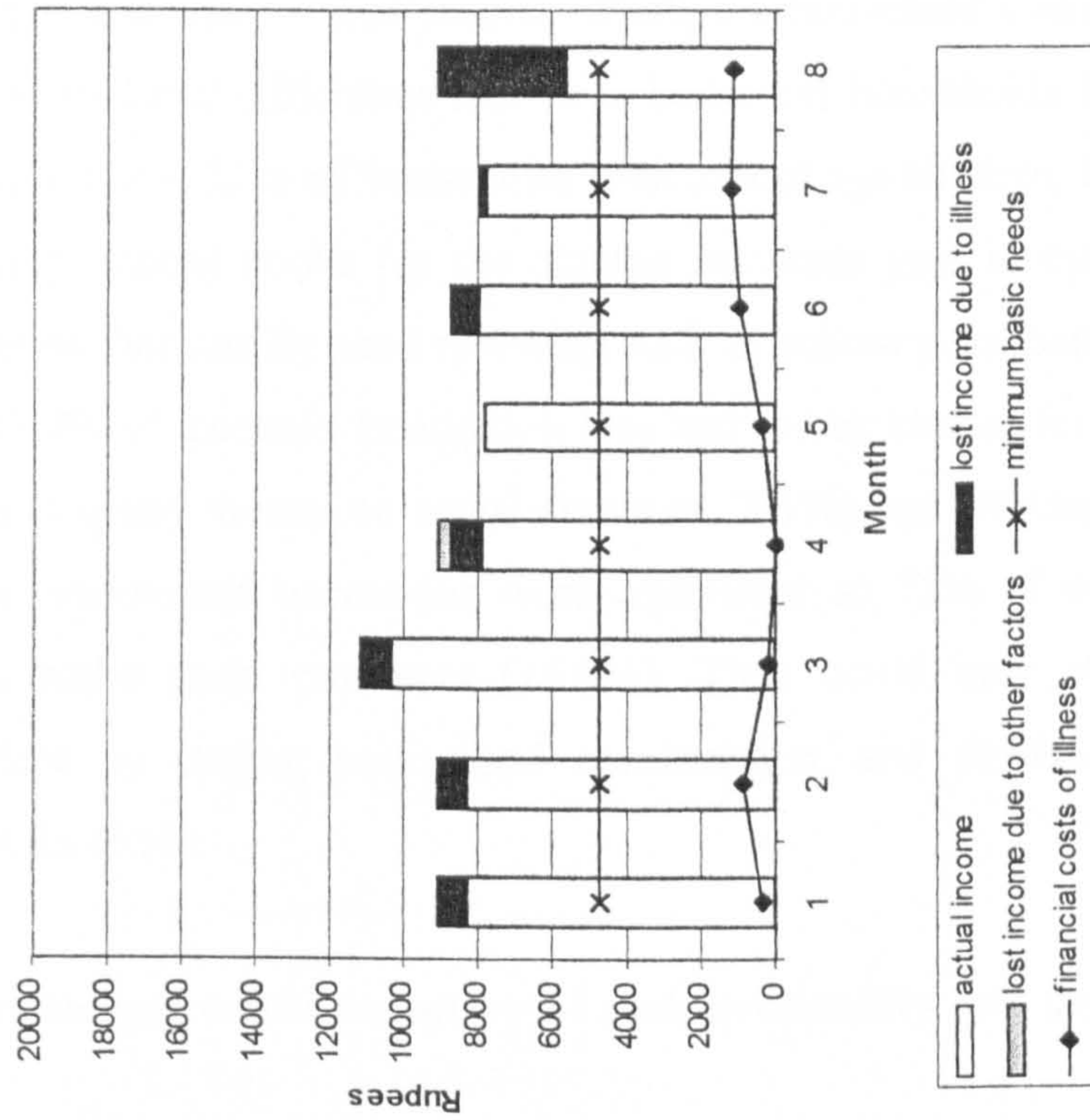
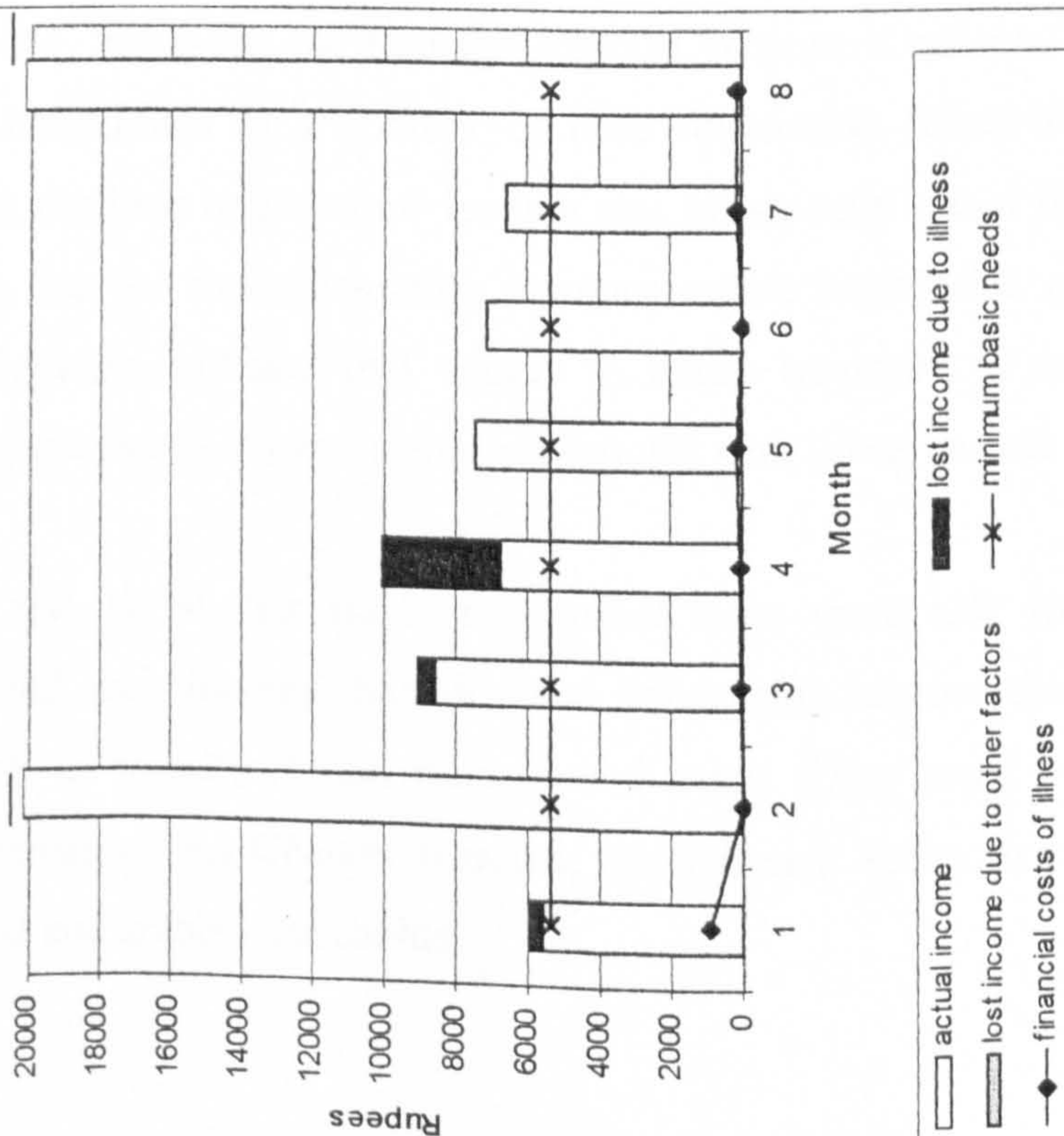


Figure 7.7: Income fluctuations relative to minimum basic needs: the case of Raja



Many types of other necessary spending are 'lumpy' and beyond the routine budgets of relatively better off households

Education costs and those associated with rites of passage such as weddings can impose additional spending burdens that exceed income. Pushpa's household's experience in month 5 illustrates the financial difficulties that even better off households had to face due to combined cost burdens. Like all households with school age children, Pushpa had to buy all the necessary school books for the coming academic year in the month of January, plus other items that usually need renewing such as school pens, bags or shoes. This cost Rs.3450 (43.9% of income). In addition they had to buy clothes for New Year (19.1% of income) and spend money on social activities (5.1%) and treatment (5.1%). In total non-daily or unexpected necessities were equivalent to 73% of income, and Pushpa also had to make *seetu* payments (15.9%). They could only afford these combined cost burdens by cutting basic food consumption, and pawning a lot of jewellery (3 items for Rs.4550).

7.3.3 When workers cannot work: summary of cash availability and cost burdens relevant to ATP

In a livelihood context of insecure income, key findings that emerged from the above analysis of ATP from a basic needs perspective are set out in Table 7.9. The Table complements Table 7.6, but takes the findings forward because it reflects actual ATP problems faced by households in a context of risks to income. These findings, for example the fact that declined households' income was persistently below the minimum basic needs poverty line, or that fluctuating incomes meant households often lacked cash to pay for treatment, indicate that access to cheap treatment is an important entitlement for declined households and stable households with lower income.

The spending data also show that stable households were more able to cope with spending needs beyond their income than declined households because they had more financial assets (such as jewellery) and more social assets (they could borrow from relatives or friends cheaply). As Chapter 6 noted, this different ability to cope is what distinguished declined and stable households.

Table 7.9: Features of ability to pay when income is lost

Type	Features
Declined (n=4)	<ul style="list-style-type: none"> • Income losses are the root cause of financial stress and these are due to irregular work availability or incapacitation due to illness. • Income of three declined households is persistently below the minimum basic needs poverty line. • Wage losses exacerbate the problem of no cash to pay for treatment: a small income loss meant additional expenses associated with treatment or educational costs were well beyond household budgets. • When indirect illness cost burdens are serious because they incapacitated workers for prolonged periods, households find it even harder to find extra cash to pay for treatment costs.
Stable (n=7)	<ul style="list-style-type: none"> • Most households in this group are also vulnerable to financial stresses related to loss of work and income, because they are dependent on daily wages. • Fluctuating income due to wage losses means in some months there is no cash to pay for treatment. • Income levels just above the poverty line are not adequate protection against ‘lumpy’ treatment costs, <i>especially when illness is serious and treatment costs are high.</i> • Due to fluctuating incomes, combined cost burdens are well beyond the reach of household budgets, forcing pawning of jewellery, borrowing or cuts to consumption.
Improved (n=5)	<ul style="list-style-type: none"> • These households earn income above that needed to purchase minimum basic needs, and their income is relatively constant over the 8 months. • Over 8 months these households could pay for treatment costs associated with common acute and chronic illnesses such as fever, flu or diabetes. • But serious illness that incapacitates workers causes financial stress and forces cost management strategies. • Many types of other necessary spending are ‘lumpy’ and beyond the routine budgets of these relatively better off households.

7.4 Financial management

7.4.1 Mobilising financial assets to cope with illness costs

The above analysis showed that treatment costs, and other lumpy but necessary expenses, often exceeded available income levels, particularly when serious illness incapacitated workers or work was unavailable. *Household ability to cope with costs that go beyond budgets was therefore an important dimension of ability to pay.* The main strategies adopted were shown in the spending tables in the previous section, and fall into three main categories:

- mobilising material resources, in particular financial assets such as jewellery and savings;

- delaying payments or cutting consumption and investment spending;
- credit or gifts.

This section focuses on the first category of cost management strategies, in particular use of financial stores such as jewellery to finance illness costs and other lumpy spending needs. Although the second category of spending strategies are cost management strategies, they are also measures of the impact of financial stress, and were examined in more detail in Chapter 6 (section 6.4.4). The third type of strategy, particularly borrowing, was very common and is analysed in Chapter 9.

Among case study households potential material assets that could be converted into cash were:

- *financial stores*: jewellery, and savings and *seetu* lump sum payments;
- *physical assets or stores*: productive (income earning) and non productive assets including land and housing, sewing machines, bicycles and other vehicles, electrical items, clothing (especially expensive saris), and other household goods.

During eight months' research, households did not sell or pawn non-productive or productive physical assets such as electrical goods or sewing machines. Financial assets were much more frequently used, largely because that was their function: they were stores that had been accumulated to act as a buffer or form of insurance against financial contingencies such as illness. Mobilisation of financial stores is examined in more detail below.

Types of financial asset

The main types of financial asset in the two communities were jewellery and savings (see Chapter 4). Jewellery was the most frequently mobilised financial asset, and although strictly speaking a physical asset, in Sri Lanka it is considered almost another currency or medium of exchange. Households certainly perceived jewellery as a financial store as well as an important accessory for social events and appearances:

“If you have (money) you can buy jewellery, otherwise you can't. We need it for going to special events like weddings or parties, otherwise people will think or say things about us, what we are like. But (jewellery) is also for emergencies. Money spent on jewellery is not a waste because we can pawn it for money, no? So it is very important for the people around here” (Selvarani [not a primary case study household]).

The ease with which jewellery can be pawned at banks and pawn brokers, which have well established systems for valuing and exchanging jewellery, is also testimony to the value of jewellery as a financial store in this context.

Savings at formal financial institutions were much less common. Only one household mobilised savings to cover financial stresses such as illness costs, because it had savings left over after the wife had worked abroad (Geetha: Box 7.1 below). Nevertheless, people recognised the importance of saving for emergencies or investments, and two other types of saving institution were more commonly relied upon to build up financial assets: *seetu* groups and NGO-based savings and credit societies.

Using financial assets to cover illness costs and other financial stresses

The value of financial assets used to finance illness costs (usually direct treatment costs) and other stresses was shown in Figure 6.7 (Chapter 6, section 6.4.2). In all cases except Geetha, the financial stores used were jewellery and they were exchanged for cash by pawning at banks or pawn-brokers.

In Chapter 6, Figure 6.7 showed that financial stores were mobilised mostly for non illness-related stresses. Among declined households, the value of jewellery mobilised over the eight month research period was low because they had pawned most or all of their jewellery in earlier periods (see section 6.4.2). Among stable households, three also had no jewellery or savings to draw on when research began (Nimal, Amali, Renuka). In contrast three relied heavily on financial assets over the eight months, often as a means of sustaining consumption and maintaining *seetu* or debt payments as budgets became increasingly stretched (see for example Geetha and Nishanthi in Box 7.1).

Improved households also pawned jewellery, but usually for investment purposes.

Although fewer financial assets were mobilised for illness-related stresses than non-illness related ones, Figure 7.9 shows they were important for covering illness costs alongside other cost management strategies (gifts and borrowing). The figure shows that declined and stable households had to cover a higher percentage of total illness costs by mobilising assets, compared to those that improved (see also Figure 9.8 in Chapter 9).

Case study box 7.1 : Using financial stores: Geetha and Nishanthi

Geetha

Geetha deposited Rs.25,000 in a bank after she returned home from working abroad. Over the 8 months Geetha had to pawn jewellery and depleted all these savings for various expenses, including treatment costs:

- daily needs: she had to withdraw money in months 1,2,3 and 7 (total Rs.4,900);
- treatment costs: in month 3 Geetha used savings to finance her daughter's visit to a private doctor; and in months 6 and 7 she had to withdraw savings to contribute to very high financial illness cost burdens (Rs.4,515 or 141% and Rs.1,177 or 47%) due to her hysterectomy and then diagnosis of diabetes;
- funeral costs: Geetha's father died in month 7 and she withdrew Rs.13,000 to help finance the cost of the funeral with her sisters.

The savings were a vital financial asset that made the household robust against sudden contingencies and sustained consumption levels, but the use of all the savings over an eight month period meant the household was very vulnerable to any further shocks.

Nishanthi

Nishanthi's household also relied heavily on financial stores during the research period to sustain consumption and investment levels (see Figure 6.7). Over 8 months Nishanthi pawned jewellery worth Rs.14,600 to finance:

- treatment costs: she pawned jewellery worth Rs.1,000 in month 1 to pay for her tablets for diabetes;
- daily needs: pawned Rs.7,300 to finance daily needs;
- repay debt: pawned Rs.7,000 to repay debts.

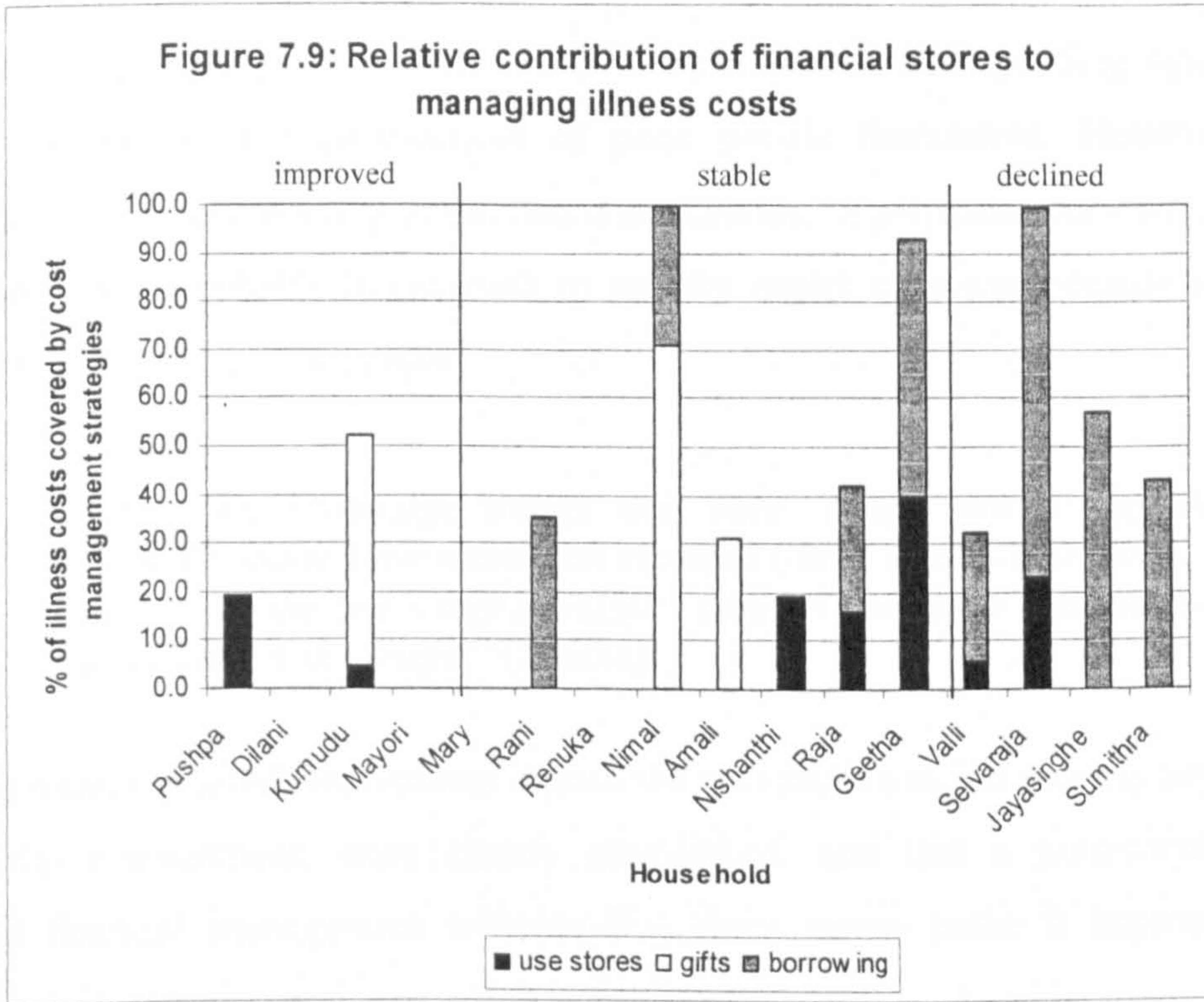
Consequently Nishanthi was also able to cope with financial stresses, but at considerable cost because the household had few stores left after 8 months to finance future shocks. This was particularly a concern for Nishanthi because her treatment costs were regular:

"I don't always have money for treatment. Every month I have to buy my tablets, go to the hospital... (and) sometimes this is Rs.200 or Rs.300... I need that jewellery for emergencies so I hope I can redeem it" (Nishanthi).

Among declined households the dominant strategy to cover illness costs was borrowing, because they had fewer financial assets to use. In contrast stable households covered a higher proportion of illness costs by drawing on financial assets: Nishanthi and Raja covered 20% and 16% of illness costs respectively, and Geetha covered 40% of the household's illness costs using financial assets.

Overall, financial assets were an important factor mediating ability to cope with illness costs, and were one of the factors that enabled some stable households to remain stable. However, when research finished these households had fewer financial assets and were more vulnerable to future shocks (see Chapter 6).

Figure 7.9: Relative contribution of financial stores to managing illness costs



7.4.2 Managing income

Sections 7.2 and 7.3 showed that low and insecure incomes were a key factor undermining ability to pay for daily and non-routine necessities such as health care. These affordability problems were evident from income and spending figures, and also from the voices and perspectives of poor people themselves. However, from the perspective of people living in the two communities, in particular poor women, a second reason why households lacked cash to pay for health care was because they managed their income badly, for example:

“People don’t manage things well here...Drugs are a big problem...Some husband’s spend their money on cassipui (illicit alcohol), arrack... Go and look. You can see the one’s that develop – they are the one’s that don’t drink – or the one’s that sell the drugs!” (Lalitha).

Some more educated respondents argued the two factors of job security and income, and financial management, were closely inter-linked, and that a permanent job enables sound financial management whereas low daily wages make it impossible to make financial plans:

“A permanent job has many advantages. You know that money is coming in and so you can make plans, for example you can join a seetu, you can borrow money... And on the other side, people will only accept you for a seetu or lend you money if they trust you to pay” (Premasiri).

“It is income not the spending that is important... I can save money because we have enough. I can manage things. But how can you save money if you do not have? Of course many people waste money...but there are more that cannot because they have no money to waste after eating.” (Mary)

Nevertheless, financial management was frequently stated to be a factor in its own right that influenced ability to pay (and livelihood development more generally):

“My second son wastes money, spends it on drinks and cigarettes, that is why he has not developed. But my big son saved his money, every day a small amount. Now he has a three-wheeler, he has recently bought a TV, has a gas stove, electricity. He does not waste money but saves it and manages it well – he does seetu. He got Rs.50,000 from one seetu and invested in the three wheeler” (Valli).

The two main dimensions of financial management talked about by both men and women were (a) being careful with spending and related to this, the problem of men wasting money, and (b) the importance but difficulties of saving. These two issues are addressed in the next two sub-sections.

Consumption patterns, being careful with money, and the problem of male spending

“There are many sides to poverty and money is only one of them. The management of that money is also important...Even with Rs.1,000 you can survive. The house opposite gets about Rs.,4000 for five people, Rs.3,000 goes on debts leaving Rs.1,000 for 5 people but they manage with careful spending” (Premasiri).

Ability to pay for minimum basic needs was often influenced by the amount of income allocated to ‘non-essential’ items. Ability to pay is therefore closely tied up with who controls money and spending in the household. In general, in the Sri Lankan family context, spending decisions are ultimately controlled by the husband, so the proportion of income allocated to the family’s basic needs, compared to ‘non-essential’ items, was often dependent on the husband, and in particular their drug consumption habits.

Table 7.10 summarises different types of financial arrangement and control over household budgets among case study households. Although the husband was usually at the top of the decision-making hierarchy, women usually controlled daily shopping and routine spending decisions within the budget allocated to them by the husband, and controlled minor spending for children’s health care or school costs. Women even had the autonomy to allocate money to small *seetu* if enough cash was available.

For larger and non routine items, consultation usually took place within the household, but the husband was the final arbiter and the wife, however grudgingly, would accept his decision. For example if a woman wanted to take part in a larger *seetu*, the husband would have to be consulted and permission granted. In contrast, if the husband wished to spend a large sum of money, for example on a new roof or a TV, consultation did not always take place, and even if it did, the husband would make the final decision.

Table 7.10: Control of household income

Type of arrangement	No. of HHs
A. Only the husband works: gives a proportion (usually 75% or more) of his earnings to wife who controls spending for daily household needs (food, groceries) and for children (school items, health care). He retains a proportion for his own personal spending, and is responsible for larger spending decisions.	8
B. Husband and wife work: each keep a share of their respective earnings for their own personal spending, and the rest is pooled and controlled by the wife for spending on daily household needs (food, groceries) and for children (school items, health care). The wife pools a higher proportion of her income for family needs than the husband	5
C. Husband cannot work due to illness: in one case [D3] the women in the household work and control spending for daily household needs; in the other case [S3] the wife does not work but household receives support from kin, mainly on the wife's side.	2
Total	16

For households with arrangement Type A, the proportion of the husband's income handed over to the wife on a daily or monthly basis was, in general, 75% or more. For example Selvaraja's daily household budget, described at the start of this chapter in Table 7.1, shows the husband kept Rs.50 (25%) of his daily wage for his own expenses and gave the rest to his wife. Some husbands gave more than 75%. However, in one case (Renuka's), the husband earned Rs.500 per day but gave only Rs.200 (40%) to his wife for family needs. The rest he spent on heroin and cigarettes. In all cases if the husband wanted money after he had handed it to his wife he could ask for money back.

In households where the husband and wife earned money (Type B arrangement), the husband usually retained more than the wife for personal consumption, and in fact often retained more than 25% of income because the wife paid for a larger percentage of basic needs. For example in Valli's household the husband retained a high percentage (about 50%) for cigarettes and drink so she had to rely heavily on her own daily earnings to pay for the family's food, which were usually inadequate.

In other Type B arrangements, however, the husband gave more than 75% of earnings. In Pushpa's case her husband gave a relatively high proportion of his daily wage to his wife (90%):

"I control the money. My husband gives all his money because he trusts me to manage things, and I buy the food, I do seetu, buy the children's school things and medicines. I also earn money and spend that on seetu and food" (Pushpa).

For all types of household, male spending on drugs (cigarettes, alcohol, cannabis, heroin) was often a high proportion of daily and monthly income. For low income households in decline, this spending on drugs had the most serious implications for ability to pay for basic needs, including health care, because these households were already in an income deficit situation in most months. In the case of Valli, Table 7.3 (section 7.2.2) showed that even when income was above the level needed to meet basic needs, the husband's spending on cigarettes and alcohol (37% of income) meant no cash was available to pay for treatment, and Valli had to pawn her last item of jewellery. In addition, spending on narcotics meant there was no cash left to repay the household's large and accumulating debts:

“He's useless – he will come tonight but he will have spent his money on arrack, cassipu and cigarettes. He has debts but he does not pay... the other day she (the moneylender) came and shouted at him and he said he would give, but when will he give?” (Valli).

For some stable households male income allocated to drug spending was also high, but its implications were usually felt only at times when income was lost due to illness or other factors. For example when Amali's household lost a lot of income in month 6 (Table 7.8), drug spending became a much higher proportion of income (23.3%).

Renuka's household demonstrates a more extreme case of drug spending, but one which was not unique in the two communities. The husband's vegetable business earned a relatively high income of Rs.500 per day. The household's monthly earnings of Rs.14,000 meant in theory there was a high monthly income surplus of about Rs.8,000 (Figure 7.4). However, because the husband spent about 50% of this income (Rs.7,000) on heroin and other narcotics, there was never cash to pay for anything other than daily necessities. To finance health care or education, Renuka had to rely on friends, credit from the shop and delaying other payments:

“I am going crazy, when I think what we could have done with all the money... I want to improve the house, I want to get a proper toilet, the children need things. What he gives is only enough for food for us all, and even that is not enough when you have to buy clothes or medicine” (Renuka).

Although male spending on drugs was a phenomenon among all types of household, the implications for income-poor households were more severe. For example Dilani's

husband's drinking absorbed 13% of monthly income, but they still had 25% of income available to save. Speaking about one of her friends, Dilani commented:

“Nandawathi's husband is drinking so he spends her small earnings from the rice packets she sells on drink. But that is not all. Her son takes heroin and she has to give him Rs.50 a day. They can only eat and drink, nothing else. If there is a marriage or other social event she does not go... People are giving her money but frankly, they should stop because the money is wasted on the men... They need to sort their own problems out” (Dilani).

The problem of male spending was neatly summarised by Sita, a women's leader in Obesekerapura:

“It is possible to do something more productive with the Rs.1,000 a woman earns than with the Rs.4,000 a man earns” (Sita).

Savings and investment strategies

The previous sections have shown that households needed sums of cash greater than they had in hand, to pay for health care, education and other lumpy costs. Building up lump sums through savings was therefore seen to be an important financial and livelihood strategy by poor households in the two communities.

However, people's ability to save depended on their spending priorities, cash availability and the existence of financial institutions to exert some sort of savings regime and prevent spare rupees being spent. These three factors meant that income-poor households on insecure income found it difficult to save. Firstly, the male spending priorities discussed in the previous section demonstrated that it was hard for women to be careful with money and put aside rupees to save. Second, sections 7.2 and 7.3 showed there was little or no cash surplus at the end of each day and on some days they had had to borrow. Any small surplus held by the woman after shopping was easily absorbed by the daily demands or claims made by a husband, by relatives or friends in need, by creditors, and by hungry or sick children:

“Shirani spends too much and does not save, so they are not developing further. If we earn Rs.100 we can try and save Rs.10... But I have to say that it is hard to save these days, even a few rupees” (Lalitha).

Faced with inadequate income, a third factor necessary to enable savings is some sort of institutional savings discipline, but income-poor households lacked formal or informal financial institutions to exert a saving regime, and the spare rupees that might be set aside were easily spent. Even the *seetu* tradition was not an option for poor households with insecure income, because they found it difficult to commit themselves to regular payments and were often not trusted to pay (see Chapter 9).

Some NGO initiatives, such as the Women's Bank (see Chapter 4), have attempted to extend financial institutions to poor households by making savings regimes lower (a few rupees per day) and more flexible, but declined households with low and insecure income, sometimes combined with male spending on drugs, appeared to have been excluded even from these groups. Consequently declined households' resource allocation to savings or *seetu* remained negligible (see Jayasinghe [Tables 7.2]; Valli [Table 7.3]; Selvaraja [Table 7.7]), which meant they could not replenish depleted jewellery stocks and contributed to greater vulnerability and ATP difficulties when the household needed a lump sum of cash to pay for health care or other lumpy costs.

In contrast some stable households, and all improved households except Kumudu, were able to allocate resources to savings or *seetu*, which generated lump sums for investments or increased their ability to meet sudden financial contingencies (Raja [Table 7.4]; Pushpa [Table 7.5]; Amali [Table 7.8]).

7.5 Summary and conclusion

Declined and stable households were more vulnerable to, and experienced more, financial stresses than those that improved. Households that declined experienced frequent, if not continuous, financial stress, firstly because of *persistently low incomes* which were usually below the level needed to meet minimum basic needs. As a result these households did not have enough money to pay for any non-daily or unexpected necessities, and even quite small treatment costs could be significant additional burdens that required cost management strategies.

In other words treatment costs cannot be seen in isolation from other cost burdens. Stable households also experienced financial stress, despite higher income, because they

had to spend money on a combination of non-routine basic needs simultaneously, such as health, education, clothes or the electricity bill.

Secondly, households that declined experienced frequent financial stress because of *insecure work and unreliable income*. They were dependent on daily labour (which was not always available), daily wages (which were lost if a worker was incapacitated by illness), and most relied on the earnings of a sole breadwinner. Among stable households, financial stresses were usually the result of lost wages combined with additional expenses when income was low.

All types of household faced financial stress due to non-routine costs that are still considered basic needs, particularly health care, education and rites of passage or 'life cycle' events (for example weddings, funerals). These lumpy expenditures imposed cost burdens beyond budgets, which in the case of declined and some stable households were already stretched by spending on minimum daily needs such as food, fuel, soap and transport. Examples of these high cost shocks and the additional burdens they imposed on household budgets are shown in Table 7.11.

Table 7.11: Additional expenses causing financial stress and cost management strategies

Household	Month	Contingency / stress	Financial cost (Rs.)	Financial cost burden (% of month's income)
health care				
Pushpa	8	husband stomach problem (admitted) daughter cough Pushpa headache	1,140	20%
Kumudu	1	father's eye operation	4,130	43%
Nimal	4	knee injury	1,725	863%
	5	knee injury	3,290	940%
Raja	1	asthma and cough	905	16%
Geetha	6	hysterectomy	4,515	141%
	7	diabetes diagnosed	1,177	47%
Valli	2	fever, aches and pains shoulder ache	507	10%
Sumithra	2	son serious fever grandson flu	990	10%
Education				
Pushpa	5	school books and uniforms	3,450	44%
Nishanthi	4	school books and uniforms	800	10%
rites of passage				
Kumudu	6	daughter's coming of age party	13,000	100%
Pushpa	3	friend's wedding	1,500	15%
Kumudu	7	father's funeral	13,000	520%

This chapter has built on a key finding from Chapter 6: a factor distinguishing declined and stable households was ability to cope with income losses or expenses that went beyond current income. Stable households had more financial assets which they could mobilise to meet treatment or other expenses. For example Geetha and Nishanthi managed high illness cost burdens because they had substantial financial assets in the form of savings and jewellery. The final chapter (Chapter 10) discusses whether and how these types of asset might be supported by outside agencies to enable households to manage illness costs or other financial contingencies.

The findings from this chapter also provide a foundation for the next (Chapter 8). The analysis showed that the income of declined and some stable households is often too low to meet minimum basic needs, and that people often have no cash available to pay for even minor treatment costs. This indicates that free or low cost government health services will provide important financial protection for these households. This question is examined in the next chapter.

In addition, improved households also faced financial stress due to the costs of serious illness and the combined cost of various non-routine items. These findings indicate that free public health care will offer important financial protection against serious illness for all types of household. The next chapter therefore looks in more detail at how the government health care system plays a role in keeping illness costs down, mediating ATP and the impact of illness costs on household livelihoods.

Chapter 8: Protecting the poor against the costs of illness: the role of free public health service provision

8.1 Introduction

This chapter examines how the health services available to households, and the way people interact with them, influence illness costs and cost burdens, and therefore mediate the impact of illness on household livelihoods. In particular, it examines whether and how public health services protect the poor against high treatment costs, and how they mediate processes of impoverishment. Referring to the conceptual framework in Chapter 1, it therefore follows the logic of the framework round from treatment strategy, through to illness costs and their implications for livelihood, but analysis is focused on the role of the health system in these processes (see Figure 1.2, Chapter 1). The chapter specifically addresses objective 4, by identifying health service characteristics that make households robust or vulnerable to illness costs.

After providing a brief overview of treatment seeking behaviour among case study households, the chapter addresses three main questions:

- how do different types of treatment strategy influence the financial costs of illness (section 8.3)?
- What are the implications of low cost public health services for household livelihood development, in terms of protecting assets and mitigating or preventing decline, or releasing resources for other savings and investment purposes for livelihood development? In contrast, when households use private services what are the implications for cash availability and asset or borrowing strategies (section 8.4)?
- And what are the limits to the system's coverage or quality weaknesses that might turn people towards private providers, increasing their treatment costs (section 8.5)?

Household survey data are presented to show the broad relationships between treatment seeking behaviour and financial costs of illness, but analysis of how different treatment strategies and costs impact on household livelihoods relies on in-depth case study data.

This chapter builds on the findings of Chapter 5 by disaggregating illness costs further and comparing financial costs of illness for public and private providers. It also builds

on the analysis of livelihood change in Chapter 6, by taking each household category (declined, stable, improved) and analysing how the health system mediated that impact, for example free health care may have prevented households' livelihood decline, or mitigated that decline.

This chapter also builds on the findings of Chapter 7, which showed that declined households had inadequate incomes to meet minimum basic needs, including health care expenses. Stable households with insecure incomes also often lacked cash to pay for minor treatment costs. And higher income households were not free from financial stresses caused by serious illness. In other words for all the households studied, but particularly those on low and insecure income, treatment costs could be a significant additional burden requiring potentially risky cost management strategies. Access to free or low cost health services would therefore be an important resource for households, helping to protect assets, minimise borrowing and enable household economic development. This link between the health system, illness costs and components of livelihood is examined in this chapter.

8.2 Overview of treatment strategies among case study households

In Chapter 5 household survey data provided an overview of treatment seeking behaviour for hospital IP care, chronic treatment and acute OP care. The main patterns identified were as follows:

- predominant use of public hospitals for IP treatment;
- most people used public providers, or a mix of public and private, for regular treatment of chronic illness;
- predominant use of private providers for acute OP services.

In general, case study household treatment seeking behaviour followed similar patterns, although the variety of treatment actions that were taken by different individuals within a household over eight months of research make it hard to generalise about the treatment strategies adopted by types of individual or particular households. However, a dominant factor across individual and household decision-making processes was the *perceived seriousness of illness*. If the illness was mild or self limiting (coughs and colds, mild occasional asthma) then in general people usually self treated, and

occasionally ignored the illness. If it was perceived to be a more serious illness (or potentially more serious if untreated) then households took a next step and consulted some sort of provider. Case study household treatment strategies for mild and more serious illness are briefly reviewed below.

8.2.1 Common mild or self-limiting illnesses

Table 8.1 summarises the treatment actions usually adopted by adults or for children with mild illnesses. Households were able to identify most mild acute illnesses (colds, coughs, flu, mild fever) or chronic illnesses ('*sema*' [phlegm on chest]), mild asthma, hemaroids) and were aware of traditional herbal or basic western remedies for these illnesses (*koththamalli* [boiled coriander], paracetamol, cough mixture, dietary remedies). With respect to children's illnesses women were usually left to manage treatment, usually the mother, or a more senior female in the household.

Table 8.1 Treatment of mild or self limiting illnesses

Decision / action	Frequency of use and types or remedy
No treatment	Rare: people usually take some form of remedy
Self treatment	<p>Common for adults because it is known to be cheap and effective. Two main types of self treatment were:</p> <ul style="list-style-type: none"> • traditional herbal remedies (<i>at behet</i>) such as boiled coriander for coughs and colds; • western medicine (paracetamol, cough mixture) from shops or already in the home. <p>Self treatment was less common for children, especially babies, even if the illness was a common cough or cold, because of greater concern about small children's health and fear that a mild illness might develop into something more serious (such as a mild fever becoming higher). Children were more likely to be taken to see a doctor at an early stage.</p>

Source: Case study household data

8.2.2 More serious or persistent illness

Among case study households, if a mild illness became more serious or there was no improvement within a few days, or if the illness was initially considered to be more serious or potentially serious, a health care provider was consulted (western, ayurvedic, magico-religious). Table 8.2 summarises the main features of treatment seeking behaviour for chronic and acute conditions observed over the eight month research period.

Table 8.2 Treatment of illness perceived to be more serious and requiring consultation with a provider

Type of illness	
Chronic illness	<p>In general:</p> <ul style="list-style-type: none"> • Income-poor households used government hospital OPD clinics once per month. • Better off households used a mixture of public and private providers, or just private providers. • In all types of household workers avoided public and used private providers for regular treatment of chronic conditions to avoid wage losses, since clinics are notorious for overcrowding and long waiting times. • Municipal dispensaries rarely used. • Ayurvedic doctors rarely used.
Acute illness	<p>In general:</p> <ul style="list-style-type: none"> • All case study households preferred private doctors over municipal dispensaries or public hospital OPDs; • Weaknesses in the public system, especially crowds and long waiting times, pushed poor households to the private sector, particularly working adults who needed to obtain treatment quickly; • Households with a higher income used private doctors more consistently than those with low or insecure income; • Low income households used private providers, but also resorted to municipal dispensaries or government hospital OPDs when they did not have money available; • With respect to children's treatment an important public alternative to private doctors was the National Children's Hospital (Lady Ridgeway).

Source: Case study household data

When an acute or chronic illness was perceived to be serious, households were not deterred by cost, or other barriers, from seeking treatment. This was because, first, public health services are free at the point of delivery in Colombo (and Sri Lanka) (see Chapter 4). Second, if case study households lacked the cash needed to get treatment for

serious illness, they generally made every effort to obtain cash through cost management strategies (especially borrowing and pawning jewellery)¹.

As a result of these two factors, cost barriers deterred the search for care in the case of serious illnesses for only four illness episodes. In these cases the costs of any treatment were deemed prohibitive because the household could neither afford to take time off work to seek care at a public provider (and so incur wage losses), nor had cash to obtain treatment at a private pharmacy or doctor.

All households with children, irrespective of income, frequently resorted to the National Children's Hospital (Lady Ridgeway) when a child's illness was deemed to be getting worse (for example with high fever), or for accidents and emergencies (for example asthma attacks). Respondents felt it had the best doctors and equipment for dealing with more serious health problems:

"I always go to Lady Ridgeway if the children are ill because it is free and they have experience with children. If there is an emergency – like if they have an accident – it is the only place to go, no?" (Selvaraja)

Lady Ridgeway was a particularly important resource for income-poor households dependent on a daily wage: they could obtain health care for their children at low cost, no matter how many children were ill or how many times they had to return to the hospital when the illness did not improve.

People's preference to take their children to the National Children's Hospital for more serious or persistent illness reflects an important feature of household interaction with the public health system in Colombo and Sri Lanka more generally. Across income groups (with the exception of the richest), people use the national government hospitals as the ultimate source of care for more serious or urgent conditions, because they have the best staff, equipment and drugs. Even case study households with relatively high income (Dilani, Mary) that usually used a private doctor for OP services, relied on these hospitals for treatment of more serious conditions (see Box 8.1).

¹ This finding affirms the household survey data presented in Chapter 5, which showed households were rarely deterred from seeking treatment due to cash shortages. They preferred to seek treatment and manage the costs, most frequently through borrowing or pawning jewellery.

Case study Box 8.1: Public hospitals for treatment of serious illness: the case of Dilani

Dilani, who nearly always used the family's private doctor for acute OP care, resorted to Kalubovila Hospital OP services when her son's urinary tract infection did not heal up through medicine from private providers:

"My daughter had fever, a cough and a headache for a week. After a few days I went straight to Kalubovila and did not go to our (private) family doctor this time – I thought I should sort it out all in one go... If I went to our doctor I might end up going three times, like with my son's problem (urinary tract infection) last month... That time we went to the private hospital and then the private doctor three times and spent about Rs.1,500, but it did not get better. So I finally took him to Kalubovila and they gave the right treatment. They scolded me for not coming before" (Dilani)

8.3 Protecting the poor: the low financial costs of public health care services

The household survey data on illness costs, presented in Chapter 5, is here broken down by source of treatment for individuals to provide a summary of how treatment actions influenced financial costs.

8.3.1 Average (median) costs by type of treatment strategy

Figure 8.1 compares the median financial cost of public, mixed (public and private) and private treatment strategies for chronic, acute OP and hospital IP care. For each category the median financial cost of public treatment per month for individuals was considerably lower than private treatment strategies or a public/private mix of actions.

The greatest contrast between public and private costs was for hospital IP care: for individuals admitted to a public hospital, the median financial cost per month was only Rs.11, equivalent to a bar of soap or about a tenth of a daily wage. In contrast the median cost for a private hospital admission was Rs.1,354 – equivalent to an average household's monthly per capita income. Free or cheap public IP care therefore offered financial protection against the costs of IP care, imposing only small additional burdens on most household budgets over the year.

The disparity between the public and private costs of treatment for chronic conditions or acute OP care was less extreme, but still considerable (Figure 8.1).

Figure 8.1: Median financial cost of treatment for individuals, by source of treatment

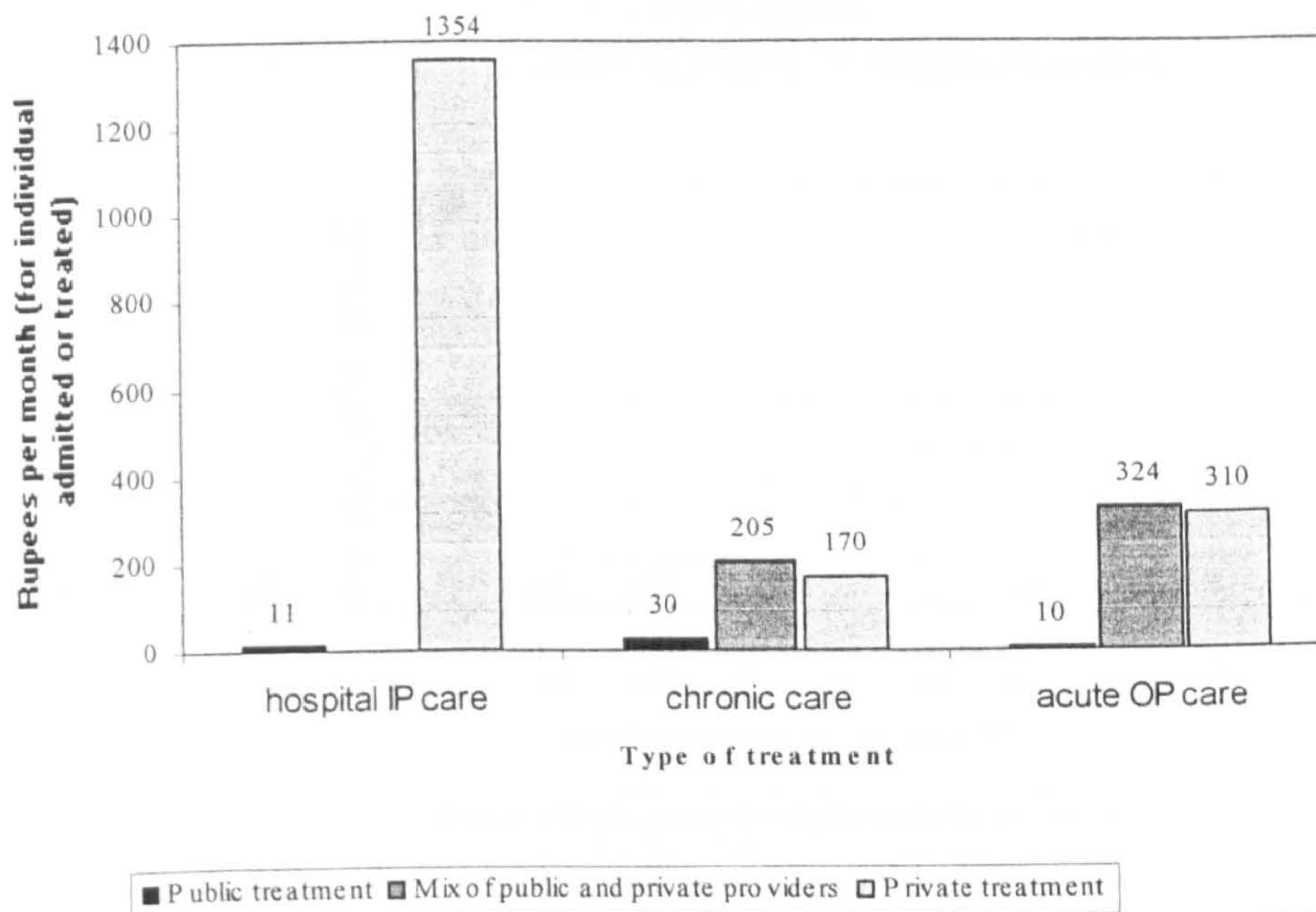


Figure 8.2: Comparison of financial cost distribution across individuals: public and private hospital IP care

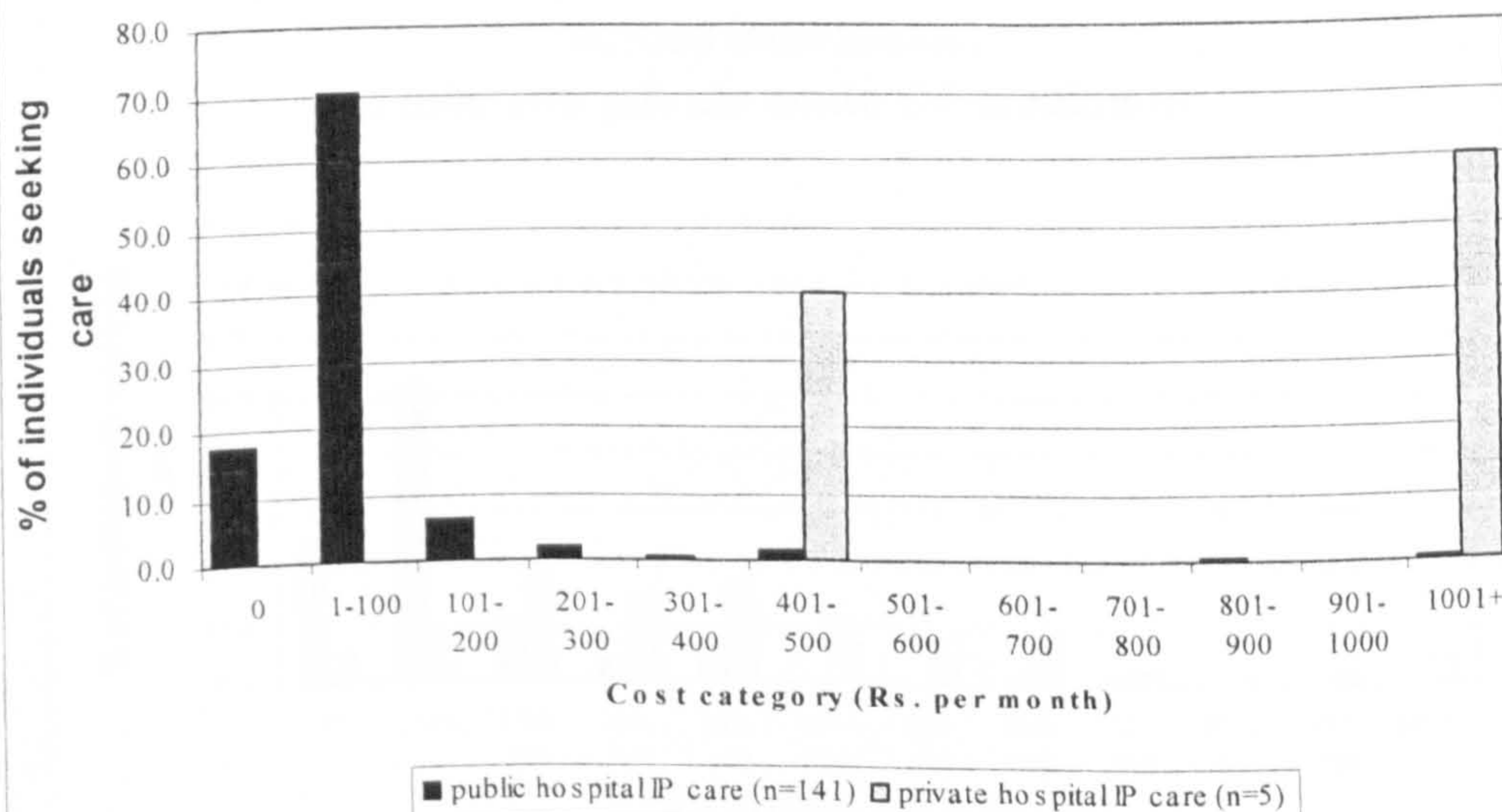


Figure 8.3: Comparison of financial cost distribution across individuals: public and private treatment of chronic illness

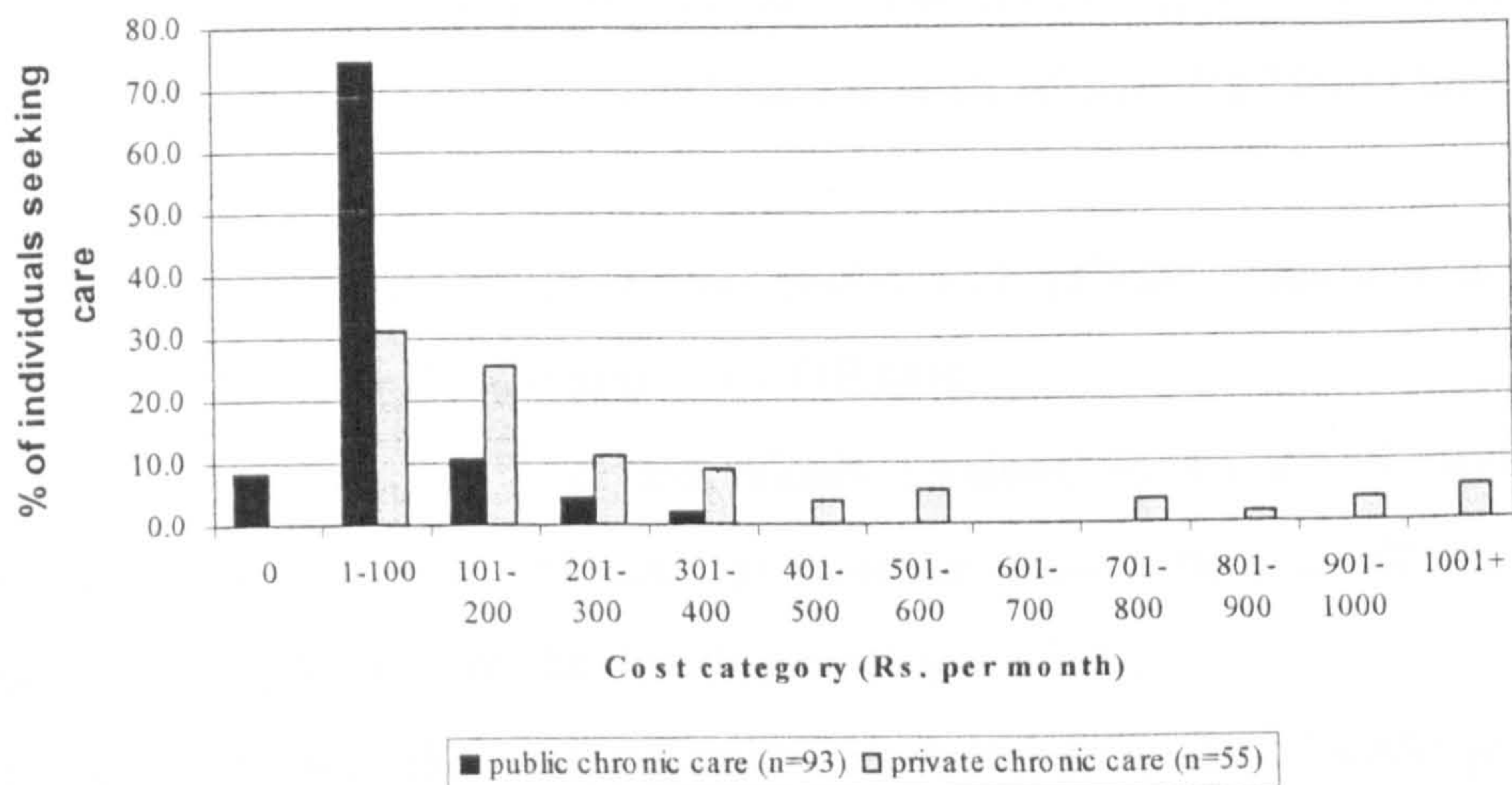
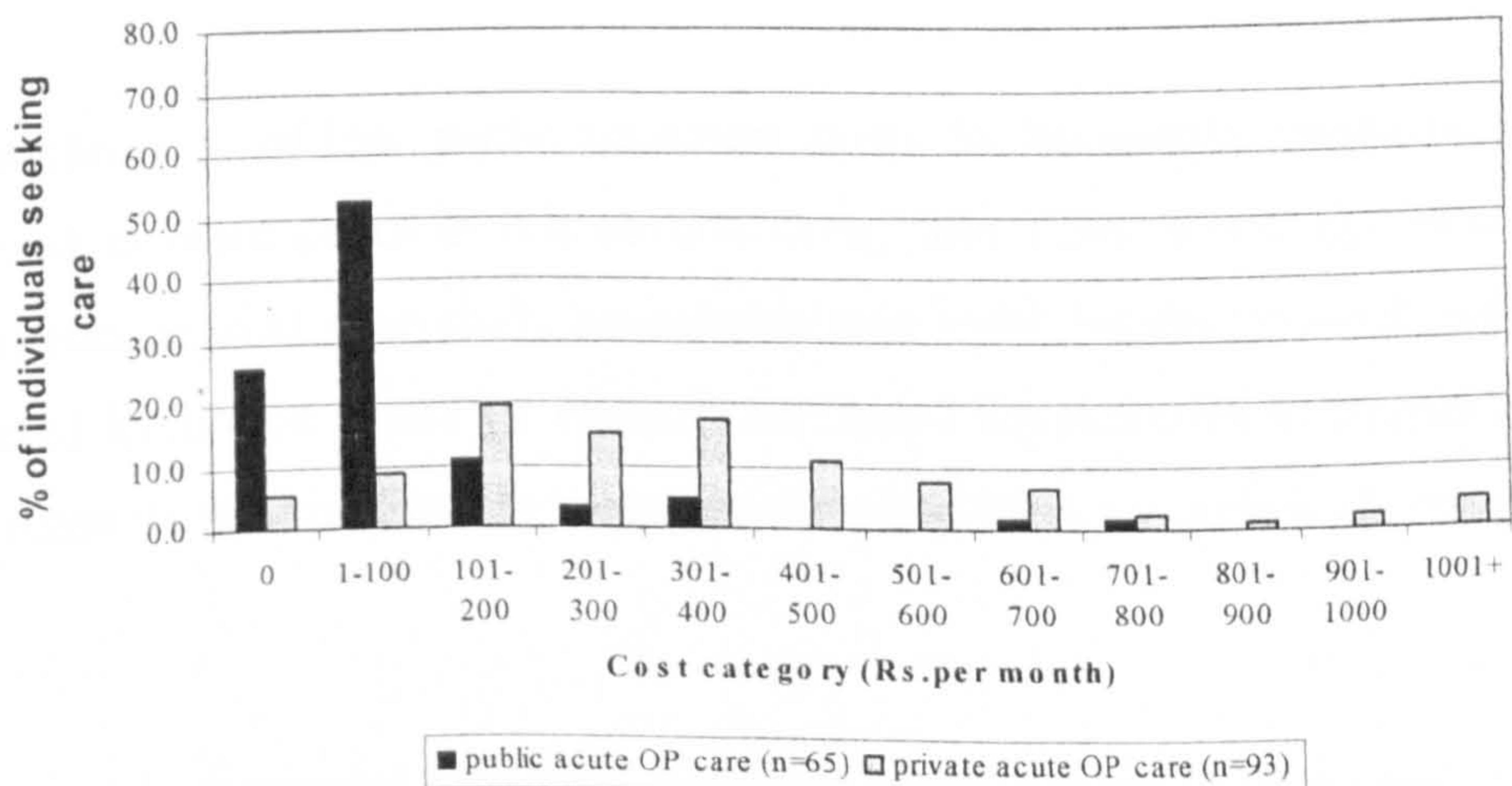


Figure 8.4: Comparison of financial cost distribution across individuals: public and private acute OP treatment



8.3.2 Distribution of public and private treatment strategy costs

Figures 8.2–8.4 show how financial costs were distributed across individuals for public and private treatment strategies², with respect to hospital IP care, chronic care and acute OP care. Public treatment costs were concentrated at the lower end of the cost distributions (Rs.100 or less), whereas private treatment costs were spread across higher values. For each type of treatment, the vast majority (at least 75%) of individuals who opted for public treatment had to bear financial costs of only Rs.100 or less.

The contrasting cost distributions for public and private treatment are particularly pronounced for hospital IP care and acute OP care:

- for hospital IP care, 88% of individuals admitted to a public hospital incurred a financial cost of Rs.100 or less; in contrast private hospital IP care costs were towards the higher end of the distribution (Figure 8.2);
- for acute OP care, the vast majority of people going to a public provider (78%) incurred a financial cost of Rs.100 or less; in contrast the vast majority going to a private provider (86%) incurred a financial cost above Rs.100, 67% spent over Rs.200, and 24% spent over Rs.500 per month (Figure 8.4).

8.4 Protecting the poor: implications of low cost public health care services for household livelihoods

The implications of low public treatment costs for household livelihood resources are examined in more depth in this section using case study household data. Synthesising the experience of all case study households over eight months, low cost public treatment protected livelihood assets or enabled livelihood development strategies in three main ways (case studies to illustrate these general arguments are presented throughout section 8.4):

** Free public treatment protected assets: it enabled households to access care without having to adopt risky coping strategies such as borrowing or asset depletion. Households dependent on a daily wage of about Rs.100–200 per day struggled to meet*

daily or weekly food and fuel needs (see for example Table 7.1 in Chapter 7). If, in addition, the household had to pay for a visit to a private doctor (equivalent to a daily wage) these illness costs inevitably triggered cost management strategies such as pawning jewellery or borrowing (see section 7.2.1, Chapter 7). The option of low cost public treatment for households that faced cash shortages was therefore an important alternative because they could usually access treatment without adopting risky strategies. And for more robust households that usually used private providers for acute or chronic treatment, free public treatment was an important safety net at times when they lacked cash – they could pick and choose providers depending on their cash flow.

** By protecting assets or keeping debts low, free public treatment made households more resilient to other shocks.* Households had more financial stores and borrowing capacity in place to cope with other shocks or consumption and investment needs.

** Free public treatment, particularly low cost public hospital IP care, released household resources for saving and investment purposes and so enabled livelihood development strategies (housing, small businesses).* The safety net of public health care, particularly low cost public hospital IP care, meant households did not have to save or put resources aside as insurance against hospital costs, and in particular enabled households with surplus income to invest in other livelihood resources.

The insurance offered by the public health system, in terms of protecting assets and enabling investment, was particularly important for households experiencing three broad types of health problem:

- 1) *Protection against costs of acute illness among children.* Chapter 5 (section 5.2) showed that acute illness among children was frequent, and that households with several small children experienced a lot of illness episodes over the eight months. Low cost treatment for children was therefore important insurance for these households, especially because children's illnesses often persisted and the parent took the child back to see the doctor several times. Case studies to illustrate this argument are presented in section 8.4.1.
- 2) *Protection against regular financial costs of chronic illness.* The financial costs of treatment for chronic illness impose a regular and long term cost burden on

² The costs of mixed public/private strategies are not included in these graphs to simplify the comparison between public and private costs, but the cost distributions of mixed strategies were similar to private ones.

household budgets, so low cost treatment for households with chronically ill members was important. Furthermore, the indirect costs of illness could be high for long term or chronic illness, increasing the need for protection against financial costs to reduce the overall costs of illness. Case studies to illustrate this argument are presented in section 8.4.2.

3) *Protection against costs of serious illness or accidents requiring IP treatment.*

These types of illness are likely to impose the highest financial costs, in terms of drugs, tests and hospital IP fees, so public provision was a vital form of insurance against serious illness for all case study households, irrespective of income. Serious illness is also likely to impose high indirect costs, again increasing the need for protection against financial costs to reduce the overall costs of illness. Case studies to illustrate this argument are presented in section 8.4.3.

For each of these types of health problem, Table 8.3 summarises the households (declined, stable and improved) that benefited from the protection provided by the public health system over the eight month period, in terms of whether free public provision mitigated livelihood decline (for declined households), prevented decline (for those that remained stable), or enabled improvement (for those that improved).

Table 8.3: Households protected by the public health care system

Free public treatment insures against financial costs of :....	The public health care system:		
	Mitigated decline (for declined households)	Prevented decline (for stable households)	Enabled improvement (for improved households)
...acute illness among children	Selvaraja (case study below)	Renuka	Kumudu (case study) Dilani
...chronic or long term illness	Selvaraja (case study below)	Raja (case study) Nishanthi Nimal (case study) Geetha	
...serious illness or accidents (especially IP care)		Renuka Raja (case study) Nimal (case study) Geetha	Mary (case study) Pushpa

Note: Households with (case study) written next to them are described in more detail below to substantiate arguments.

For one household that experienced livelihood decline over eight months (Selvaraja), low costs of public treatment for children and chronic illness protected assets, prevented

higher debts, and mitigated livelihood decline. However, it is noteworthy that the livelihood decline of the other three households in this group (see Table 6.2 in section 6.3.1, Chapter 6) was not mitigated by the public health system (see section 8.5).

Five out of seven stable households benefited from low cost public treatment for children, chronic illness or hospital IP care, particularly the more vulnerable households (Nimal, Geetha, Renuka). Low cost treatment protected assets, prevented higher debts and helped to prevent livelihood decline:

- Geetha and Nimal suffered serious illness that incurred the highest financial costs of illness among case study households (see Figure 6.2), but free public IP treatment substantially reduced these financial cost burdens;
- Renuka took her children (she had four sons under 15) to the National Children's Hospital (Lady Ridgeway) for serious acute illness; and Renuka's son was admitted to the public Ayurvedic hospital with a knee injury and stayed there for over 1 month with no treatment costs;
- Raja and his wife benefited from regular free treatment of chest problems or asthma, which protected assets and enabled savings and investment in other areas (housing, jewellery);
- Nishanthi's household benefited from regular public treatment for her diabetes which she obtained at low cost.

Finally, low cost public treatment was likely to have supported four households to improve livelihoods:

- either directly by using services which lowered costs substantially (in particular Mary, Pushpa, Kumudu);
- or indirectly, by knowing that this insurance was available if serious illness struck, thus releasing resources for other areas of saving and investment (in particular Dilani, Mary, Pushpa).

In the following sections, insurance provided by the public health system, and its role in mediating household livelihood paths over eight months, is examined in more detail for each of the three broad types of illness.

8.4.1 Protection against the costs of acute illness among children

Public hospital OP and IP treatment at the National Children's Hospital provided important insurance against the potentially high costs of frequent or serious illness among children. The public hospital, and to a lesser extent municipal dispensaries, offered an important safety net:

- for highly vulnerable households with children that did not have enough income to meet daily basic needs (illustrated by the case of Selvaraja below);
- and for less vulnerable households with small children that occasionally faced cash shortages (illustrated by the case of Kumudu below).

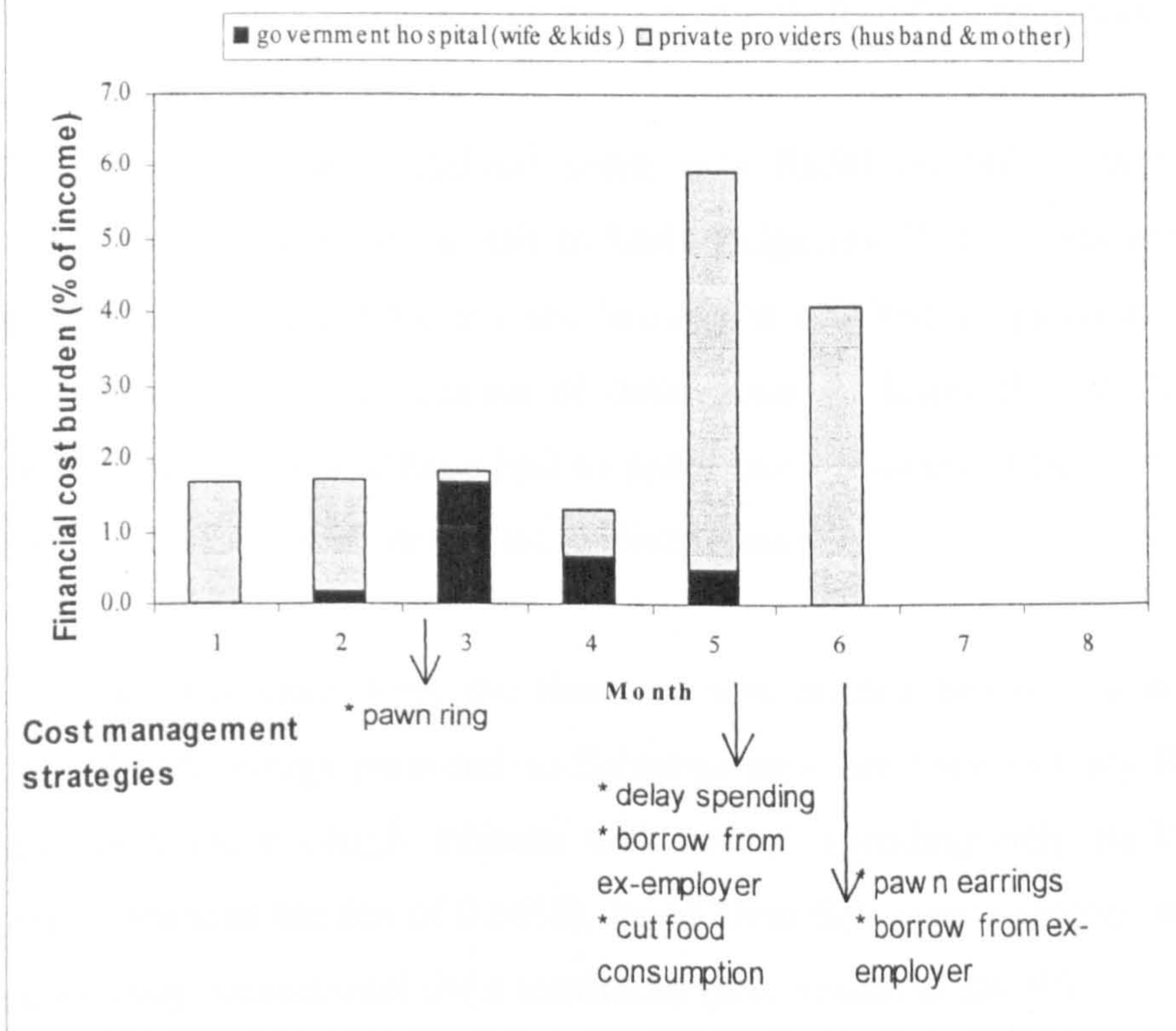
The case of Selvaraja

Selvaraja had no surplus cash available to finance health care costs after minimum basic needs had been met each day (See Table 7.1, Chapter 7). A private doctor's charge of Rs.100–150 is about the same as the money Selvaraja had available each day to buy basic food items, so paying for health care meant either going without food that day or obtaining extra money through gifts, credit or pawning. Free public health services therefore protected the household against illness costs that would force potentially risky coping strategies which could lead to more serious livelihood decline.

Figure 8.5 plots the household's financial illness cost burdens incurred over eight months, breaking down burdens for going to public providers (IP and OP care at government hospitals) and private providers (pharmacy or private doctor). Overall, private providers imposed much higher financial cost burdens than public providers.

In months 1 and 2, private costs were due to the husband buying medicine for his shoulder pains from a private pharmacy after work (he could not go to a public provider during the day because he would miss work). In month 2 an additional but very low cost burden (0.16%) was incurred when Selvaraja went to the general hospital (Kalubovila) thyroid clinic because her throat was sore and she could not swallow properly. She saw a specialist doctor, obtained medicine and an appointment was set for a thyroid operation: the financial cost of this visit was only Rs.10 for transport.

Figure 8.5: Financial cost burden of public and private treatment: Selvaraja



In month 3 the household was again protected from a high financial cost burden by public services. Selvaraja was admitted to the general hospital overnight for pre-operation tests but they did not operate and set a date 5 months ahead (due to a long waiting list). This IP stay incurred a low cost burden of only 1.67%, stemming from transport (Rs.25) and food (Rs.50). In that month she also had to take her young daughter to Lady Ridgeway hospital because she had a high fever which had persisted for 3 days. For this visit and medicine they spent only Rs.15 on transport.

Overall in month 3 the household spent only Rs.90 on public care for a hospital admission and tests, and then a visit to Lady Ridgeway. These costs imposed a burden of less than 2% (Figure 8.5), but the household still had to pawn a ring on the day Selvaraja went to hospital because of these costs. If financial costs had been higher Selvaraja stated they would have had to pawn more jewellery (they were already down to their last items), borrow, or cut food consumption.

The public system again kept the financial cost burden below 2% in month 4. The daughter's flu and cough persisted so Selvaraja took her back to Lady Ridgeway where she was given more cough mixture and tablets, spending only Rs.39 on food and transport (a financial burden of 0.66%). In addition Selvaraja's mother went to a private pharmacy to buy paracetamol for a toothache (also spending Rs.39).

Months 5 and 6 illustrate the implications of higher illness cost burdens (above 5%) for Selvaraja's household, and the importance of keeping cost burdens to a minimum. In month 5 the main illness cost burden came from:

- Selvaraja's mother's visit to a private dentist for a worsening toothache (Rs.270) (there was a long waiting list at the government hospital dental clinic);
- the husband buying medicine at a private pharmacy (Rs.50).

Together these private visits imposed a financial cost burden of 5.42%, and forced cost management strategies:

- borrowed Rs.500 from an ex-employer;
- delayed spending on the water bill, could not pay back the shop, or redeem the mother's ring;
- started to cut rice consumption and milk powder for the daughter.

In the same month the three children in the household suffered serious illness concurrently (see Table 5.7 in Chapter 5), but the public system protected the household from high additional cost burdens. Because Selvaraja took the children to public hospitals the total financial cost was only Rs.30 (on transport) for all three children – or only an extra burden of 0.51% that month (see month 5, Figure 8.5).

This insurance against children's illness costs was important for Selvaraja: if she had had to take them to a private doctor that month they would have needed at least another Rs.300–400, and the financial cost burden would have been over 12%. This would have placed a considerable extra burden on the household budget and forced more risky borrowing:

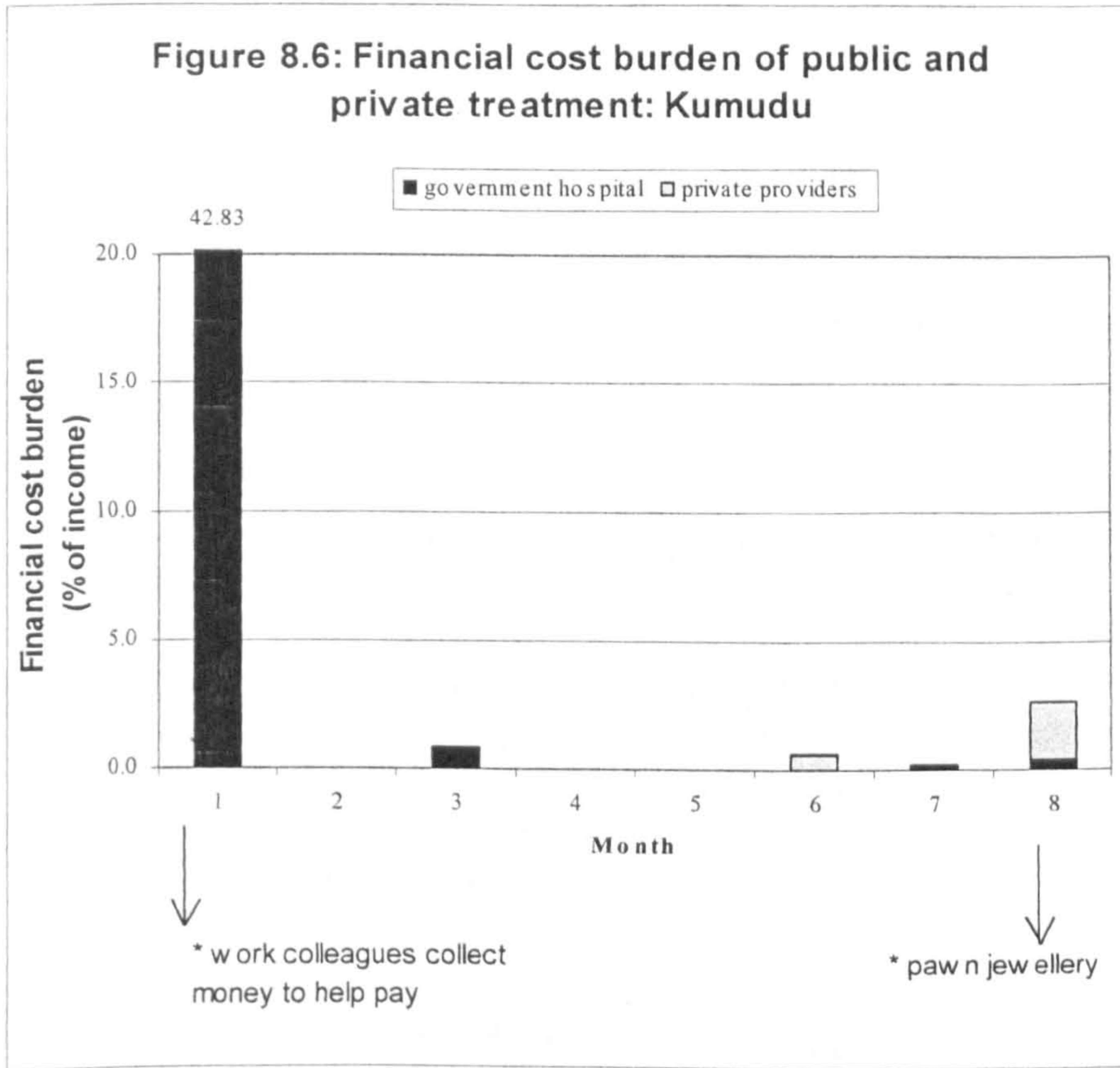
“I take the kids to Lady Ridgeway because if I went private and they didn't get better the doctor would say go to Lady Ridgeway anyway – so I might as well go there straightaway. I don't know...Rs.300 or more would have gone if I had gone private...and I would need to borrow even more money for that – maybe with interest” (Selvaraja).

Due to the protection offered by public hospitals Selvaraja only borrowed Rs.500 over eight months due to illness (see Figure 6.9, Chapter 6).

The case of Kumudu

Although more robust or higher income households used public OP services less frequently for mild or moderate illnesses, free OP care for children is still an important safety net for those with small children who experience frequent illness, as illustrated by the case of Kumudu.

Figure 8.6 plots financial cost burdens incurred over eight months. The very high burden in the first month (43%) was due to the father's cataract operation at the government eye hospital, for which patients have to supply their own lens at a cost of Rs.4,000. This is a high cost for most poor households, higher than an average monthly salary, and Kumudu's household only managed because her father's work colleagues got together and collected money for the operation.



The incident illustrates the importance of the free IP services usually provided by public hospitals, because in a situation when the user was charged a high cost burden was placed on the household. The household could cope because it was robust and had social resources, but many households do not have access to this informal insurance (see Chapter 9).

Over the rest of the research period Kumudu's household experienced low financial cost burdens because of free treatment at National Children's Hospital. Kumudu has three children, including a new born baby daughter. The baby had five episodes of fever, flu or a cough over eight months and on each occasion she took her to Lady Ridgeway. In the first case (month 1) when the baby had "serious fever" for 4 days she went to get medicine and advice twice, the baby recovered, and she spent only Rs.20:

"Now that we have the baby it is good to have the hospital (Lady Ridgeway) so close...it has the best doctors for small children and we don't have to pay for the medicine. With these children I am scared to think about the costs if I had to go private. Last time I went twice with the baby and I spent only Rs.20...going to a private doctor twice would have cost Rs.200 – I would have to borrow that" (Kumudu).

In month 3 the son had flu for 3 days and she took him to Lady Ridgeway and spent Rs.6 on transport. The son's flu and cough did not improve over the next 10 days and she took him back to the hospital 2 more times to get cough mixture and tablets. In the same month she also took the baby daughter to the hospital because she had a cold and a chesty cough. For these 4 visits to the hospital the household spent only Rs.53 on transport and food and incurred a cost burden of only 0.7% (Figure 8.6). Similarly in month 7 Kumudu took the baby daughter to Lady Ridgeway twice (the baby had recurring asthma or a cough) and only spent Rs.10 (a financial burden of 0.18%).

Month 8 illustrates the implications of a slightly higher illness cost burden (2.7%) for Kumudu's household. Kumudu became worried about her baby daughter's tight chest and cough and took her to Lady Ridgeway where she was treated with an inhaler and obtained cough mixture, spending only Rs.20 on transport and a drink. But after 2 days the baby's asthma was no better and a friend recommended a private doctor "*who was very good with children's illnesses and gave good medicine for this type of problem*". Kumudu spent Rs.120 on this visit (Rs.110 on fees and medicine, Rs.10 on transport),

and because this cost was a large proportion of the household's daily income (about 50%) she had to pawn her ring for Rs.400 to finance the treatment.

Kumudu's experience in month 8 was shared by other households: going to a private doctor incurs financial costs that make up a large proportion of daily income and necessitate borrowing or pawning jewellery. For households with small children the government hospital was therefore usually an important protection against these strategies, although not always adequate.

8.4.2 Protection against the costs of regular treatment for chronic or long term illness

Free or low cost OP clinics at the tertiary government hospitals for treatment of conditions such as diabetes, asthma and high blood pressure offered important financial protection to low income households needing regular advice, tests and drugs. Municipal dispensaries also provided drugs for regular treatment of common chronic conditions like diabetes and asthma, but none of the case study households used these lower level services due to the poor perceived quality of care at these facilities (see section 8.5.2).

Case study households that declined or remained stable over the eight month research period often complained about the queues and time it took to obtain treatment at government clinics, but stressed the free care they received was a vital resource because it enabled them to access continuous treatment for their illness at low cost:

"I went to the government hospital (for my diabetes) because they can deal with you if things get worse. If I go private, I pay money, but then if things get worse they refer me to the government and they would have to do all the tests again. So if I have a big problem, or one that needs continuous treatment like diabetes, I go to the government hospital" (Geetha).

The free, regular treatment of chronic conditions at tertiary hospitals is particularly important for:

- Vulnerable and income-poor households that have no surplus income after minimum basic needs are met (illustrated by the case of Selvaraja and her thyroid problem above, and also Shriyani [not a primary case study household] below);

- Vulnerable and poor households that had lost a worker due to illness, which increased the need for protection against financial costs to limit the total costs of illness (illustrated by the case of Nimal below);
- Less vulnerable households that frequently lost wages due to illness: at these times the household faced cash shortages and free care was an important resource (illustrated by the case of Raja below).

The case of Shriyani

Shriyani's household was a secondary case study household in Obe, not referred to in most of the analysis but from which data were also collected on a regular basis. The household was income-poor and vulnerable, dependent on the daily wage of the husband who was a manual worker (their livelihood situation was comparable to that of Selvaraja's household). The household's daily income was just enough to cover minimum basic needs, but it was vulnerable to lumpy spending needs generated by education or illness.

Both the husband and wife suffered from non-insulin dependent diabetes, and the free medicine provided by the General Hospital diabetic clinic each month was a vital resource:

"I go to the clinic at the general hospital each month with my husband. They give us tablets for a month and talk about our test results...Last time my blood sugar was 150 and my husband's was 230, and they said this was too high and we need to get it to 80 or something. It takes a whole morning with the queues but doctors are good, give enough tablets for a month..." (Shriyani).

"...It has to be free... There are many people with blood sugar problems on this lane and we are all poor here. How can we pay for tablets every day? Do you remember when the doctors went on strike? That was a big problem for us... we had to go to the pharmacy for medicine and I borrowed from my sister" (Shriyani).

The case of Nimal

For Nimal and his wife (see Box 6.1) the tertiary health system provided a vital safety net which enabled them to remain stable over the eight months. Each month Nimal went to the General Hospital where he saw a specialist and had his blood count checked free of charge. He also needed a blood transfusion every 45 days, and to receive blood without paying he asked friends to supply the equivalent amount of blood to the blood

bank. These services meant that despite the severity of his chronic condition, regular monitoring and blood transfusions at the government hospital imposed relatively low financial costs over the eight months (on average about Rs.80 per month on transport, food and drink).

The case of Raja

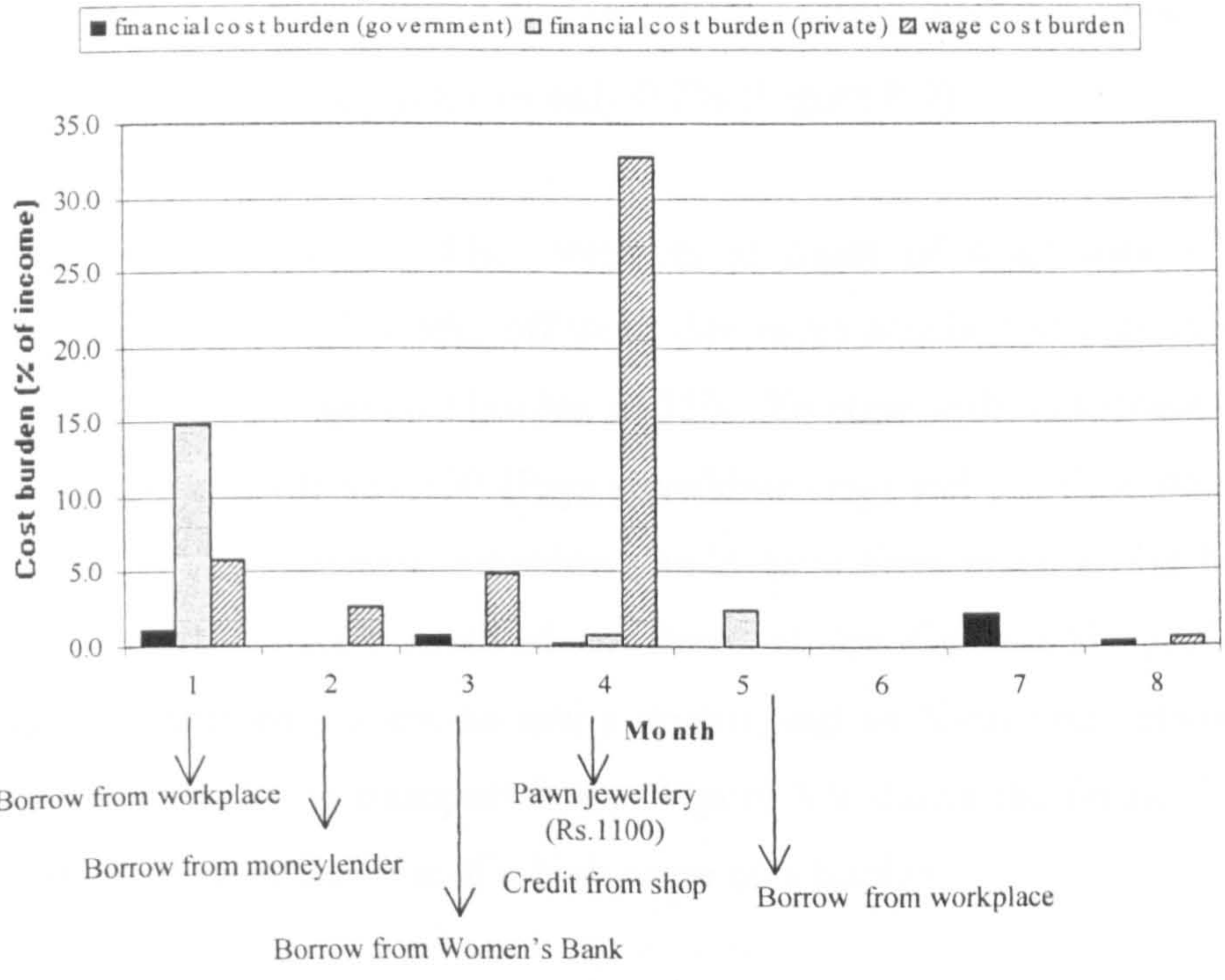
This household was relatively robust because it had three workers, but experienced high wage losses in some months because the wife and husband suffered from asthma and in month 4 the husband had a serious accident which made him miss two weeks of work. At these times the household faced cash shortages and free care was an important safety net.

In month 1 Raja had a sore chest and took 2 days off work, losing Rs.350 in wages (a wage cost burden of 5.8%) (Figure 8.7). His father-in-law also had a sore chest with shortness of breath. Both went to a nearby private clinic and a private pharmacy for treatment, which incurred a financial cost burden of 15%. The father's sore chest persisted but later in the month they had no cash available so they resorted to the municipal dispensary, obtaining similar medicine free of charge with a transport cost of Rs.60. This public treatment action incurred a burden of only 1%.

The high cost burden imposed by the private strategies, in addition to the wage cost burden, caused the household to borrow from the workplace. Without the alternative of cheap public treatment towards the end of the month it is likely the household's borrowing would have been much higher.

All subsequent financial cost burdens were much lower because the husband and wife used public providers when they had a sore chest or needed medicine: Raja went to the national chest hospital and his wife went to the local municipal dispensary. For example in month 2 Raja had a free sputum test and X-ray done at the hospital, and his wife, who missed 3 days work due to her asthma and had to borrow Rs.200 from a moneylender, obtained free drugs from the municipal dispensary. Thus in month 2 they had no financial costs for seeking care at a time of reduced income caused by illness, minimising the amount borrowed from the moneylender:

Figure 8.7: Wage cost burden and financial cost burden of public and private treatment: Raja



“My wife went to the dispensary because it is free. I had not brought my wages yet and she had little money so she went there” (Raja)

A similar process of protection operated in month 3. Raja’s wife missed a week’s work (a 5% wage cost burden), so she borrowed Rs.550 to cover daily needs on cheap terms from the Women’s Bank. At this time of wage loss free care from the municipal dispensary imposed a cost burden of only 0.7% (Figure 8.9).

The protection offered by public treatment at times of wage loss is exemplified in month 4, when Raja had 2 weeks off work due to his accident and his wife also lost two days work, causing a wage cost burden of 33%. To cope with these losses the household pawned jewellery worth Rs1,100 (Raja’s wedding ring) and got food on credit from the shop (Rs.300). Their financial situation would have been much worse had it not been for public treatment. Raja received treatment at the General Hospital Accident and Emergency department, where he saw a doctor, had an X-ray and obtained pain killers, and spent only Rs.10 on transport home. Figure 8.9 shows the financial cost burden in this month was low at the time of a high wage cost burden.

The financial difficulties caused by going to a private provider are again illustrated in month 5, when Raja’s wife went to a private doctor at night for medicine because it was an emergency and the municipal dispensary was closed. The visit cost Rs.180 and was financed by borrowing from a neighbour.

8.4.3 Protection against the costs of treatment for serious illness: IP care

Public tertiary hospitals protected households against the costs of treatment for serious illness. The previous two sections have shown that in Colombo, these hospitals provided free OP care for children’s acute illnesses and chronic conditions requiring regular treatment. More importantly, these hospitals protected households against the potentially high or catastrophic costs of IP treatment for serious illness (see Figures 8.1 and 8.2, section 8.3).

Delivery of effective IP treatment, free at the point of delivery, is likely to be the most critical level of the health system that protects the poor from high illness costs, and all case study households benefited from this insurance:

- either directly by using IP services at low cost;
- or indirectly by knowing that this insurance was available if serious illness struck, releasing resources for other areas of saving and investment.

All case study households, irrespective of income, went to the national public hospitals in Colombo for treatment of serious illness and IP care. Even those with the highest incomes that usually used a private doctor for OP services (for example Dilani) relied on public hospitals for treatment of serious conditions.

Free IP treatment at public hospitals was particularly important for households because:

- Serious illness requiring IP admission demands costly treatment, possibly involving blood and urine tests, X-rays, drugs, consultations and IP fees themselves, and usually over an extended period;
- Hospital admission usually incurs additional financial costs for items not directly linked to treatment, such as transport, additional carers, or food and drink. Cost burdens arising from these expenses can be high, so free provision of medical inputs at hospital reduces the overall financial costs of illness (illustrated by the case of Geetha in section 5.7.1[Box 5.7/Table 5.18] in Chapter 5).
- For workers, serious illness requiring IP treatment causes wage losses, so free provision of essential medical inputs at hospital is important for reducing the total costs of illness (as illustrated by the case of Nimal in the previous section, and Nimal in section 5.7.1 [Box 5.6/Table 5.17]).

Referring back to Table 8.1, the decline of Selvaraja's household was mitigated by free IP services for tests relating to her thyroid problem (and the household would benefit again when she had the operation); and the stable households Nimal, Geetha and Renuka were prevented from declining, benefiting from free IP services during the eight month research period which helped to protect assets and minimise debts.

8.5 Public health services: the limits to insurance for the poor

Although the public health system provided insurance against illness costs that protected or enabled household livelihoods, there were limits to the system's coverage, and quality weaknesses that turned people towards private providers and increased their

treatment costs. While all households had to cope with the limits or weaknesses of public health services, low income or vulnerable households were disproportionately affected, because use of private alternatives incurred higher cost burdens for these households, and was more likely to force risky cost management strategies.

Table 8.4 (based on Table 6.4 in Chapter 6) shows the case study households that did, or did not, benefit from insurance provided by the public health system, in terms of whether free public provision mitigated livelihood decline, prevented decline, or enabled improvement. It shows the public health system:

- mitigated the decline of only 1 out of 4 highly vulnerable households (Selvaraja);
- contributed to preventing the decline of 4 out of 7 stable households;
- contributed to the improvement of 4 out of 5 households that improved.

Among improved households only one (Mayori) did not benefit from the insurance provided by public treatment, because it experienced very little illness. On the rare occasions a worker fell ill, they sought treatment from a private doctor to minimise wage losses.

Among stable households only Rani and Amali did not benefit substantially from the insurance effects of the public health system, because they either experienced very little illness (Rani), or predominantly mild illness which they self-treated (Amali).

A key feature of Table 8.4 is that among the declined group of households, more did not benefit from the public health system over eight months than did. In other words, three out of four households did not have their livelihood decline mitigated by the public health system. Two broad explanations for this limited insurance effect, which affects all households but the poorest disproportionately, are:

- (a) the public health system cannot protect households from indirect costs (wage losses) caused by serious illness;
- (b) people are deterred from using the public health system because of weaknesses in service delivery or quality, in particular:
 - crowds and long waiting times;
 - a widespread perception that municipal dispensary drugs are of poor quality;
 - poor relationships and trust between government health workers and patients.

These explanations for the limits to public health service insurance are examined in more detail below.

Table 8.4: The influence of free public health care provision on livelihood change over eight months: households that did and did not benefit

Total illness cost burden ^a	Changes to household assets, income and robustness over 8 months		
	public care mitigated decline?	public care prevented decline / enabled stability?	public care enabled improvement?
0 – 0.49% (lower quartile)			
0.50-2.74%		Renuka (1.1%) Rani (1.6%)	Mary (1.4%)
2.75-7.74%	Selvaraja (2.5%) Sumithra^b (3.5%)	Amali (4.2%) Raja (5.4%) Nishanthi (5.8%)	Dilani (3.4%) Mayori (4.4%)
7.75%+ (upper quartile)	Valli (17.4%) Jayasinghe^b (high)	Geetha (33.7%) Nimal (high)	Pushpa (18.7%) Kumudu (12.5%)

bold = benefited from public health care provision

^a Household survey total illness cost burden quartile groups.

^b In earlier periods the households of Sumithra and Jayasinghe had benefited from low hospital IP care: when Sumithra's husband suffered serious burns in 1997 he stayed in the general hospital for 2 months; and Jayasinghe had undergone 2 operations. In other words free IP care is a type of insurance that was not necessarily needed or claimed over the 8 month research period, but covered all households at all times.

8.5.1 The public health system does not protect households from indirect costs of illness

The high illness cost burdens of Jayasinghe and Valli (Table 8.4) were largely due to indirect costs. For example Jayasinghe was permanently incapacitated due to illness, and Valli's household experienced an average wage cost burden of over 13% per month (Table 6.2). These illness-related wage losses frequently forced the household to borrow money and cut food consumption, and were a major cause of livelihood decline and impoverishment. However, the public health system cannot insure against these indirect costs and subsequent processes of impoverishment.

8.5.2 People are deterred from using the public health system because of weaknesses in service delivery or quality

Crowds and long waiting times at government providers

Crowds, long queues, 'hassle' (*kalabala*) and long waiting times were the main factor deterring people of all socio-economic groups from seeking care at public providers. In

particular workers from all types of household were prevented from going to public providers because of the time and wage costs involved. The alternative was to visit a private doctor or self treat. However, the financial costs of seeking private treatment impose a higher cost burden on poor households' budgets, leaving inadequate money for food:

“If we have to obtain medicine we have to go to the general hospital. We would go in the morning and expect to come back in the afternoon. Sometimes we do not have money even to buy a drink. By the time we get home it is about 2 or 3 o'clock, the children are hungry. So we don't go. But if we pay to obtain medicine quickly there would not be food for that day. If we go to the private doctor for medicine, even for a minor ailment, we have to pay about Rs.100” (Sita).

Two of the declined households that did not benefit from public health services over the eight months (Valli, Sumithra) did not use public OP services partly because of the time costs of seeking care, and either went to private doctors or self treated. This incurred high financial cost burdens for these households due to their low income, which caused them to cut food consumption, pawn jewellery or borrow (Box 8.2).

Case study box 8.2: Preferring to go private: Sumithra and Valli

Sumithra

In month 2 Sumithra suffered from serious chest pains and her youngest son had a serious fever for 8 days. Shriyani went to a private clinic in Borella, and she took her son to a private clinic in Nawala, then to one in Moragasmulla, and then back to the same clinic in Nawala. These four visits cost Rs.990 and incurred a financial cost burden of 10.3% that month. The household did not have enough income to meet minimum basic needs, and had no cash available to pay for these expenses. Sumithra therefore had to pawn her last item of jewellery for Rs.700 and borrow Rs.300 from a moneylender at 20% interest:

“I always take them to private clinics because it is quick and the doctors listen. I am too scared to go to the government hospital...the crowds...you have to take a ticket and wait and the attendants treat you like animals in there...” (Sumithra).

Valli

Valli also used private doctors for OP care. In month 1 she pawned her last item of jewellery to finance treatment for her son:

“He was in pain and vomiting everywhere so we went to a (private) doctor nearby in Kirulapone. We were scared and he needed medicine quickly so the hospital was no good” (Valli).

Although public health services protected Selvaraja's household from high financial illness costs for children's illnesses and the wife's chronic illness, the time costs of seeking care at public providers prevented the husband from using these services, and he went private or self treated (Box 8.3).

Case study box 8.3: Workers have to go private to avoid wage losses: Selvaraja

Workers were prevented from accessing public treatment due to long waiting times:

"You have to go early in the morning, its a hassle, and I cannot go to the hospital and wait all morning because I have to work. I would lose Rs.200 per day and we need that to eat. I go to a doctor or the pharmacy after work which is quicker" (Selvaraja).

On several occasions Selvaraja's household pawned jewellery or received gifts from ex-employers to finance treatment at private providers.

People were basically willing to pay to save time or wages, and avoid the crowds and queues at government facilities. Poor and vulnerable households may have little option but to go private in an emergency, or if they want to avoid wage losses, and so have to pawn jewellery or borrow.

Poor (perceived) quality of care at municipal dispensaries

Although municipal dispensaries offered free services for common acute and chronic illnesses, and were located only a quarter of a mile from each of the two communities, people from all case study households preferred to use private providers. A key factor driving people away from municipal dispensaries was the widespread perception that medicine was poor quality and ineffective (although there were few complaints about the quality of medicine from public tertiary hospitals). Municipal dispensary drugs were strongly criticised in the focus group discussions, and a frequent source of complaint among case study households.

For these reasons all households preferred to use private doctors or pharmacies, including income-poor or vulnerable households that declined. Perceptions of poor quality medicine were another reason why Valli and Sumithra (and to a lesser extent Jayasinghe) did not benefit from free public provision over eight months. In both these households members said they did not go to the dispensary because "the medicine was

no good”, and instead preferred to borrow money to finance visits to private doctors and pharmacies:

“Sometimes I would rather borrow than go there (municipal dispensary)...If you are very ill you go and it takes all morning, but then the medicine is not right or no good and you have to go to a another (private) doctor... So when it is serious I just borrow the money and go (to the private doctor)” (Valli).

“We only get cheap medicine there...If medicine is costly they (the dispensary) send us to private pharmacies – for any tablet that costs more than Rs.1 they send us to the pharmacy, but some cannot afford the medicine...” (Key informant in SSP).

The significant issue for affordability is that the financial cost of being deterred from using public providers and being encouraged to use private providers imposes a higher burden on poor households’ budgets.

Poor relationships and trust between government health workers and patients

The nature of the doctor-patient relationship was a key factor driving people away from public providers, particularly the municipal dispensaries. A priority for male and female adults from all households was to be able to spend time with their doctor to describe their health problems, and for the doctor to listen to their problems before making a diagnosis. The public system usually failed to deliver this dimension of service quality, and a common criticism was *“they (the doctors) don’t let us talk about our problem”* or *“they give you the medicine before you have told them the problem”*.

The complaints about municipal dispensary medicine in the previous sub-section usually stemmed from complaints about the quality of consultation: the diagnosis and prescription were the main problem, not drug quality per se:

“It (the dispensary) is not a good place because the doctor doesn’t look at your problems and is careless...the doctor doesn’t let us talk about our problem. So if I have a stomach problem they give me medicine for my arm, then they ring the bell and get the next person” (Raja).

People acknowledged this was not usually the fault of the doctor, since s/he had to see a large number of patients in one session. But the result was a preference to go to a private doctor who could spend more time with the patient. These inter-personal aspects

of service quality also pushed the aforementioned declined households to private providers (Valli, Sumithra):

“Private doctors let you talk more, tell them your problems and ask questions. People use them more because they talk nicely. At the government hospital the doctors are good but they don’t have the time and many just give the medicine before they have even asked what the problem is” (Sumithra).

A mistrust of government providers, founded on previous bad experiences, was another reason why Sumithra insisted on using private doctors for herself and her children, even when she had no money and had to borrow to finance the treatment (Box 6.2; Box 8.4).

Case study box 8.4: Lack of trust and use of private providers: Sumithra

Among case study households distrust of the public sector usually stemmed from a bad experience which had caused severe stress to the patient or their family. For example Sumithra was very reluctant to use public providers or have any of her family admitted to a government hospital because of the way they had treated her son when he was a baby:

“After he drank the kerosene we took him to Lady Ridgeway hospital, he was vomiting blood and could not breathe. They put him on a drip but they said they could not save him, he could not live. They had given up... Then we decided to take him out and go private – they were not making an effort to save him”. (Sumithra)

Since then Shriyani has often refused doctors’ advice to have a child admitted to the government hospital, and seeks treatment from private providers for acute OP care:

“When one of us is ill I don’t like to take them to the government hospital – I don’t trust the doctors or the treatments they give there; instead we always go to private clinics and do boddipuja and bharahara – we spend a lot of money on pujas” (Sumithra).

Due to this distrust Sumithra has adopted private strategies and incurred substantial financial illness costs over the years, in particular for two breast operations in 1992 and 1996, and for treatment of her son’s broken leg in 1996 (see Box 6.2, Chapter 6). These expenses have forced the household into debts which were still being paid when the research finished in 1999.

During the research, she refused to let her grandson be admitted to Lady Ridgeway hospital overnight, despite the doctor’s recommendation, and she always used private doctors for OP treatment.

More specifically, people aspired to a long term relationship with their doctor which would allow continuity of care, familiarity and trust to develop. They wanted a ‘family doctor’ who was familiar with their family’s illness history and situation more generally:

“We use Dr. Sikkanda, he is our family doctor who we have used for 20 years – we trust him, he knows all about our history, has our files, you can go any time... he talks nicely to the children” (Chandini)

The public system failed to deliver this type of service because there is no family GP system: people do not always see the same doctor each time they visit the municipal dispensary or hospital OPD and cannot develop a good relationship or trust with government doctors. This explains the widespread preference for a private family doctor.

8.6 Summary and conclusion

People’s use of different service providers strongly influences the financial costs of illness. For each type of illness, household survey and case study household data show that individuals using public providers are protected from high financial costs of illness. The median financial cost of public treatment per month for individuals was considerably lower than private treatment strategies or a public/private mix of actions.

Most importantly, public tertiary hospitals protected households against the potentially high or catastrophic costs of IP treatment for serious illness. And because of the predominant use of public hospitals for IP treatment, the greatest contrast between public and private costs was for hospital IP care: for each individual admitted to a public hospital, the median financial cost per month was only Rs.11, compared to Rs.1,354 per month for each individual admitted to a private hospital. Notably, 88% of individuals admitted to a public hospital incurred a financial cost of Rs.100 or less.

Chapter 7 showed that income-poor or vulnerable households had no surplus cash available for health care after meeting minimum basic needs, and those with higher incomes often had no cash to pay for treatment due to wage losses or the combined costs of routine and non-routine necessities. Given this context, the findings presented

in this chapter strongly suggest that access to low cost health services is an important insurance for a range of household types, helping to protect assets and minimise borrowing.

The financial protection offered by the public health system was particularly important for households that experienced a lot of acute illness among children, regular treatment of chronic (and sometimes serious) conditions, and, in particular, treatment of serious conditions requiring IP care. This insurance was a particularly important resource for highly vulnerable households that had no surplus income after minimum basic needs had been met.

The benefits of low cost treatment for household assets and livelihoods were illustrated when these types of household had to go to a private doctor. The higher financial costs incurred (e.g. for a visit to a doctor) made up a large proportion of daily income and necessitated borrowing or pawning jewellery. Government hospitals offered important protection against these potentially risky coping strategies.

However, there were limits to the public health system's coverage, and quality weaknesses turned people towards private providers which increased their treatment costs. In particular, among the declined group of households more did not benefit from the public health system over eight months than did. Two broad explanations for this limited insurance effect, which affected all households but the poorest disproportionately, are that public health services:

- cannot protect households from wage losses caused by serious illness, and;
- people are deterred from using the public health system because of weaknesses in service delivery or quality, in particular crowds and long waiting times and poor relationships and trust between government health workers and patients.

For example two of the declined households that did not benefit from public health services over the eight months did not use public OP services for these reasons, and incurred high financial cost burdens due to their low income that caused them to cut food consumption, pawn jewellery or borrow.

This chapter has analysed the influence of the health system and treatment seeking behaviour on illness costs, and the implications of these costs for households. Chapter 7

assessed households' ability to manage these illness costs using their material assets. The next chapter returns to the question of household ability to manage illness costs, but focuses on the social assets of households.

Chapter 9: Household social assets and the management of illness costs

9.1 Introduction

Chapter 8 showed how treatment strategies influenced illness costs, and that the government health system protected the poor from very high or catastrophic financial illness costs. However, the chapter also showed that the public health system:

- rarely protected individuals or households from the full range of financial costs associated with illness (for example, transport costs and additional drugs);
- could not offer protection against lost wages that arise when serious or chronic illness prevents people from working;
- pushed poor households towards private providers due to quality weaknesses, that incurred costs beyond household budgets and required them to obtain extra cash to finance treatment.

Thus in addition to the protection provided by the government health system, households need other forms of insurance, in the form of material assets (Chapter 7) or social assets that can be mobilised to generate extra cash to meet illness cost burdens. This chapter examines the influence of social assets on ability to cope with financial stresses such as illness, and thus focuses on the variables denoted as ‘cost management strategies’ and ‘social assets’ as set out in the conceptual framework in Chapter 1 (Figure 1.2). Figure 9.1 below also shows the location of this chapter with respect to the main conceptual framework.

The chapter primarily addresses objectives 2, 4 and 5: it describes the types of coping strategy adopted by households when faced with illness costs; identifies factors which make households robust or vulnerable to illness costs, focusing on social assets; and develops conceptual understanding of ATP by developing understanding of how social assets mediate ATP.

The chapter first provides an overview of all the cost management strategies used by households over the eight month research period (section 9.2). It then focuses on social assets and addresses the following questions:

- how did the strength of social assets vary between types of household (section 9.3)?;
- what factors explained differences in the strength of social asset endowments between types of household (section 9.4)?;
- what implications did different social asset endowments have for the borrowing strategies of different types of household (section 9.5)?
- what implications did different social assets and borrowing strategies have for household livelihoods, focusing on levels of debt (section 9.6)?

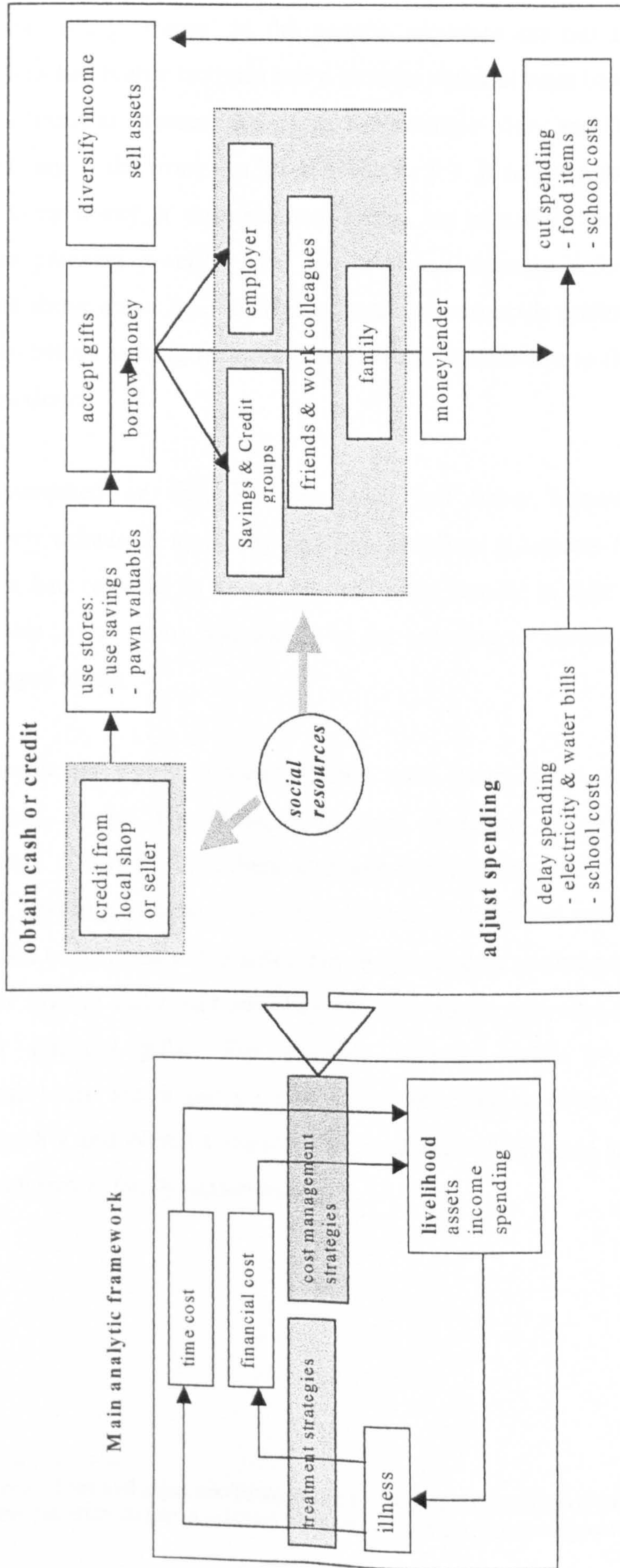
The data used in this chapter to answer these questions are from the case study households. The research focused on the social assets on which these households can make claims to raise cash, in the form of gifts or credit, at the levels of inter-household relations and social networks, and neighbourhood groups or community organisations that provide financial services (Chapter 2). These social assets are also referred to as social resource networks.

9.2 Overview of cost management strategies

The main types of cost management strategy identified by the case study research, and the sequences in which they were used, are presented in Figure 9.1. These coping strategies had several general features. Firstly, there was no difference between strategies to deal with direct and indirect costs because in the urban context wage labour and the cash economy are dominant. Whether they incurred expenses or lost wages, people needed additional cash to sustain consumption or other spending commitments, and adopted the same range of strategies for either type of contingency.

Secondly, when households lacked cash the first strategies adopted were usually to get food and other groceries on credit from a local shop, and to delay payments for items where delays did not affect immediate consumption, usually electricity and water bills (see Figure 9.1). Due to their convenience these strategies were the most frequently used. In all cases credit from shops was given without interest and was based on trust and familiarity with the household concerned – in particular knowledge that somebody within the household was earning money. Buying daily groceries on credit was a critical asset for poorer households, especially those dependent on daily wages who used credit from shops as a continuous, daily financial management strategy.

Figure 9.1: Illness cost management strategies used by case study households



Note: shaded boxes in the above box denote social assets or resources

Thirdly, the different household groups identified in Chapter 6 (declined, stable, improved) had different cost management strategies available to them, and were in general at different coping 'stages' in the generic sequence set out in Figure 9.1. Improved households had higher incomes and a broader material asset base (Chapter 7), faced fewer or no financial stresses, and some, for example Mary and Dilani, had not needed to mobilise any of the strategies listed in Figure 9.1. If households in this group did need to raise extra money, it was usually to invest, not to sustain consumption, and among this group pawning jewellery was the preferred strategy before borrowing, especially for sums above about Rs.300. This is because households preferred to rely on 'internal' resources before seeking financial support from outside due to the social costs of borrowing (see below).

In contrast impoverished or declined households had lower incomes, they had completely or nearly exhausted stores by pawning jewellery (Chapters 6 and 7), and Valli and Sumithra had resorted to borrowing and were heavily in debt due to stress loans. All households in this group had started to cut spending on essentials, and a few had sold or mortgaged assets.

Among stable households coping strategy options were more mixed. Some still had stores available and during the research pawned jewellery as their main cost management strategy (Chapter 7). Others had exhausted their stores but had more borrowing options, and in particular what distinguished declined and stable households was their social asset endowments: the latter had greater access to cheap credit through relatives, friends or savings and credit societies and their social networks also had more capacity to offer financial gifts¹. For example whereas Valli's or Jayasinghe's household had weak social assets and were often forced to borrow from moneylenders (See Box 9.1), Amali's and Nimal's received a great deal of financial support in the form of gifts through strong family networks.

¹ The distinction between a loan and a gift was often blurred – gifts could be claimed from family networks, but loans were the more common practice and gifts usually carried an obligation to reciprocate.

Case study box 9.1 : Jayasinghe's coping strategies

To cope with long term income decline associated with illness Jayasinghe's household continuously relied upon credit facilities offered by local shops and sellers, paying back as much as possible when the sister was paid at the end of the month. In addition they mobilised the following coping strategies to cope with two acute shocks over the 8 months:

shock 1: mother missed 5 days work due to illness

- extra food on credit
- borrow Rs.500 from moneylender (20% r) to pay for food and sister's son's school uniform

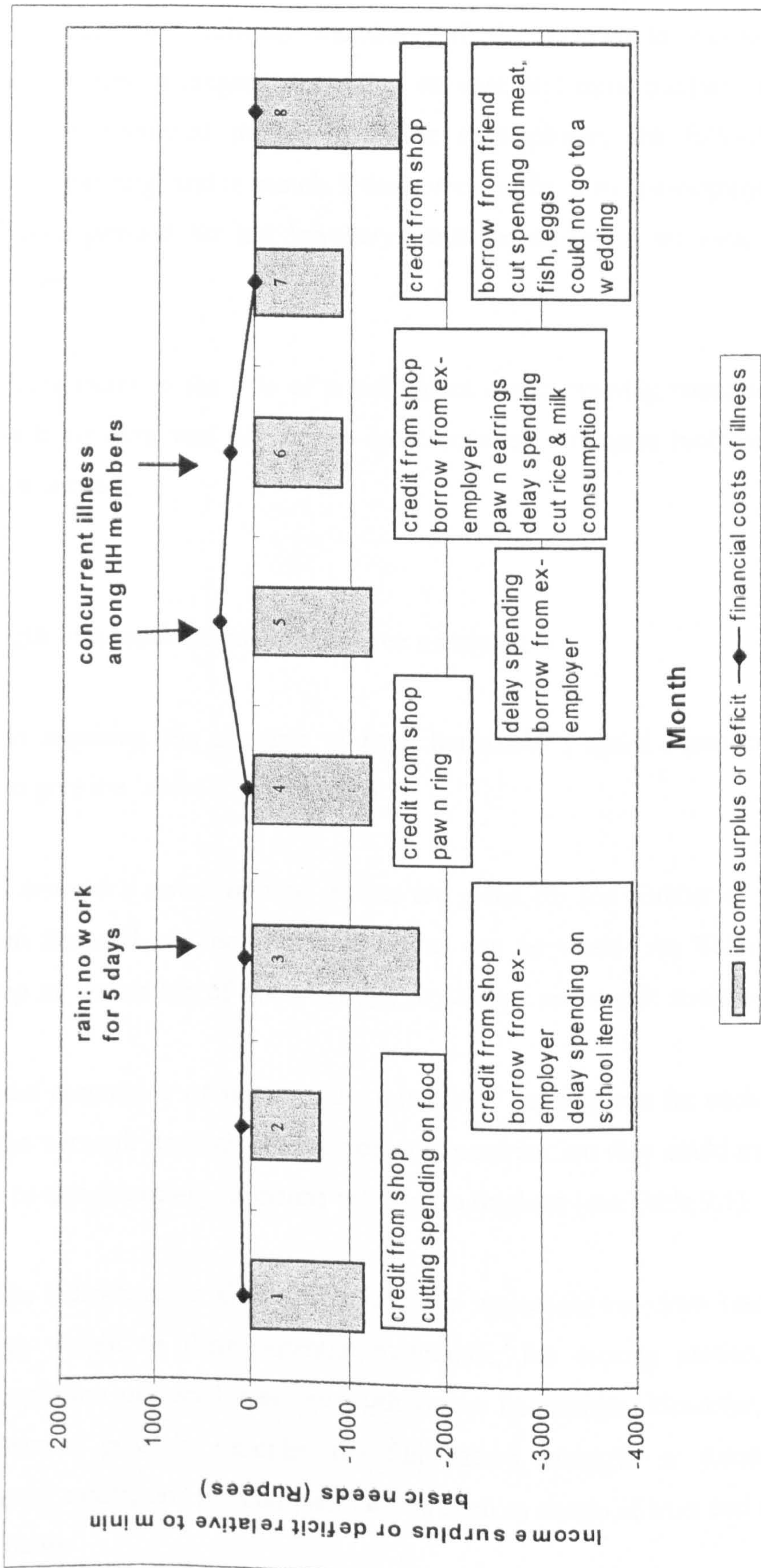
shock 2: mother could not work for 7 days due to rain

- extra food on credit
- borrow Rs.500 from moneylender (20% interest) to pay for food
- do not attend a funeral
- cut food consumption

Generalisations about strategy types and sequences require some caution, because household decision-making and coping behaviour were highly complex. For example different strategies were used depending on the size of the problem: if small amounts of cash were needed to cover a visit to the doctor or to buy enough food for the day, borrowing from friends was often preferred to pawning. For larger amounts there were usually fewer credit options, so pawning was preferred, then borrowing from a relative if they had cash reserves and were on good terms, or from a moneylender.

In addition, different actors within the household might use different sources of support simultaneously, and sometimes there would be no obvious sequence. This complexity of coping behaviour is illustrated by the example of Selvaraja (Figure 9.2), but applied to all households that mobilised cost management strategies. For each month the bars on Figure 9.2 plot the difference between Selvaraja's household income and the amount of money needed by the household to meet its minimum basic needs. Each month the household faced an income deficit of about Rs.1,000, and in months 3 and 8 this deficit was over Rs.1,500. The household also faced relatively high financial costs of illness in months 5 and 6, which imposed an additional burden on income levels that were already inadequate to meet basic food needs.

Figure 9.2: Coping strategies mobilised by Selvaraja's household



In response Selvaraja's household, like others that declined, continuously mobilised strategies such as obtaining credit from shops on a daily basis, delaying payments on school costs and water or electricity bills, and gradually extending cuts to essential food consumption. In addition different members of the household moved between borrowing and pawning strategies, depending on ease and opportunities. In month 3 Selvaraja's mother borrowed money from her ex-employer, the following month Selvaraja pawned her ring, and in month 5 she borrowed from her ex-employer. Then in month 6 Selvaraja pawned her last jewellery while her mother went back to her ex-employer for money.

The next sections examine the role of social assets and borrowing strategies in more detail, because borrowing was one of the most common strategies mobilised to cope with illness cost burdens.

9.3 The strength of household social resource networks

A first step in assessing the strength of each household's social assets or resource network was to give it a 'score', according to:

- *the social network's extent or size*: points are given for the number of individuals from which financial and non-financial claims can be made (see Table 9.1), and membership or leadership of *seetu* groups or savings and credit societies linked to NGOs;
- *the potential magnitude of support*: the number of points given for each person or group in the network depends on the potential contribution they could make, either financially or non-financially, if claims were made on them (see Table 9.1).

By counting the individuals or CBOs from which a household can draw resources and giving a rough weight to their potential magnitude, the scoring procedure allows systematic comparison of social asset strength across households. However, the score on its own cannot possibly describe the full nature, strength or durability of a household's social assets, nor the complex factors such as norms of trust and reciprocity that influence these.

As a second step, the score rankings were checked to see if they matched researchers' own rankings based on their in-depth knowledge of households' social asset endowments, as well as their 'feelings' about the social assets available to households after knowing their financial situation for one year. These comparisons confirmed the score rankings.

Table 9.1: Allocation of points for social resource network scores

Resource	Social resource score
CBOs	1 point per leadership of a CBO 1–5 points per membership depending on the magnitude of potential financial claims that can be made ^a : 1=up to 1000; 2=1001–2000; 3=2001–3000; 4=3001–4000; 5=4001+
Neighbourhood group	1 point per membership of a neighbourhood group (<i>seetu</i>) 1 point per leadership of these groups
Individuals	non-financial support 1–3 points for each person (from family, friends, work colleagues, employers or other higher level contacts) who can give non-financial support, allocated a score depending upon their contribution: 1=limited support; some advice / information; 2=important source of help for a particular purpose; 3= very close, seen often, trusted; often helps when problems arise; will cook or look after kids if ill. financial support 1–5 points for each person (family, friends, work colleagues, employers or other higher level contacts) who can give financial support, allocated a score depending upon their potential financial contribution ^a : 1=up to 1000; 2=1001–2000; 3=2001–3000; 4=3001–4000; 5=4001+
Shops or sellers	1 point for each shop or seller who gives limited credit (Rs.200) 2 points for each shop or seller who allows accumulated credit (Rs.200–1000)

^a Figures for potential resource magnitude are approximate, but were checked and based on more than one source: past loans or gifts that could be accessed again; repeated comments during the longitudinal study about from where they could and did get financial help; and specific questions which asked about potential sources of financial help.

The social resource scores were then inserted into the table that sets out the broad relationship between illness cost burden and livelihood impact over eight months (Table 9.2; derived from Table 6.4, Chapter 6). The table highlights several relationships which are examined in more detail in subsequent sections:

- households that declined over the eight months had lower social resource network scores than those that remained stable or improved;
- households with moderate illness cost burdens (quartile 3), and that declined (Selvaraja, Sumithra), had weaker social resource networks than those that remained stable or improved (e.g. Amali, Raja);

- households with high illness cost burdens (upper quartile), and that declined, (e.g. Valli and Jayasinghe), had weaker social resource networks than those that remained stable or improved (notably Nimal and Pushpa).

Table 9.2: Relationship between social resource score, illness cost burden per month, and impact over eight months

Total illness cost burden	Changes to household livelihood over 8 months		
	declined	stable	improved
0.0 –0.49% (lower quartile)			
0.50–2.74% (quartile 2)		Renuka <u>18</u> Rani <u>24</u>	Mary <u>27</u>
2.75–7.74% (quartile 3)	Selvaraja <u>10</u> Sumithra <u>12</u>	Amali <u>30</u> Raja <u>18</u> Nishanthi <u>19</u>	Dilani <u>22</u> Mayori <u>21</u>
7.75%+ (upper quartile)	Valli <u>8</u> Jayasinghe <u>9</u>	Nimal <u>28</u> Geetha <u>14</u>	Pushpa <u>26</u> Kumudu <u>21</u>
Average social resource score for each group	<u>9.8</u>	<u>21.6</u>	<u>23.4</u>

These relationships suggest that social assets were an important form of informal insurance against illness costs. They may have mitigated the decline of some households, prevented decline among stable households or contributed to improvement among improved households.

A final step in the initial descriptions of social assets was to construct a social resource network map for each household to visually complement the scores. Figures 9.3a and 9.3b provide examples of weak, moderate and strong networks. The maps, like the scores, represent the type and number of individuals or organisations in the household's social network (all outside the household), and the potential magnitude of financial or non-financial support that could be obtained from them. In addition, they added a third dimension of resource network strength, the affective distance and degree of reciprocity in the relationship as judged by the respondent², represented through the concentric rings on the maps (see Table 9.3).

² Respondents were presented with the rings of the map and asked to locate contacts in the network in one of the three rings.

Table 9.3: Rings representing reciprocity in the social network maps (Figures 9.3a and b)

ring 1 (inner)	High reciprocity and trust: or <i>generalised and diffuse reciprocity</i> (see Chapter 2): a continuing relationship of exchange, which at any given time may be unbalanced or unrequited, and which involves high levels of trust. Mutual expectation that help will be repaid at some point in the future, but when it will be repaid is not clear. People feel it is their duty to repay. Common with good friendship, marriage or even family.
ring 2	Some reciprocity and trust: reciprocity less generalised: loans or favours must be repaid and repayment must be made sooner than above, although no strict time limits. Both parties expect repayment to be made.
ring 3 (outer)	low reciprocity: <i>balanced or specific reciprocity</i> : an exchange of money, goods or services of equivalent value, with repayment expected within a set time period. Interest may be charged, although normally lower rates than those charged by 'moneylenders' (10% compared to 20%).

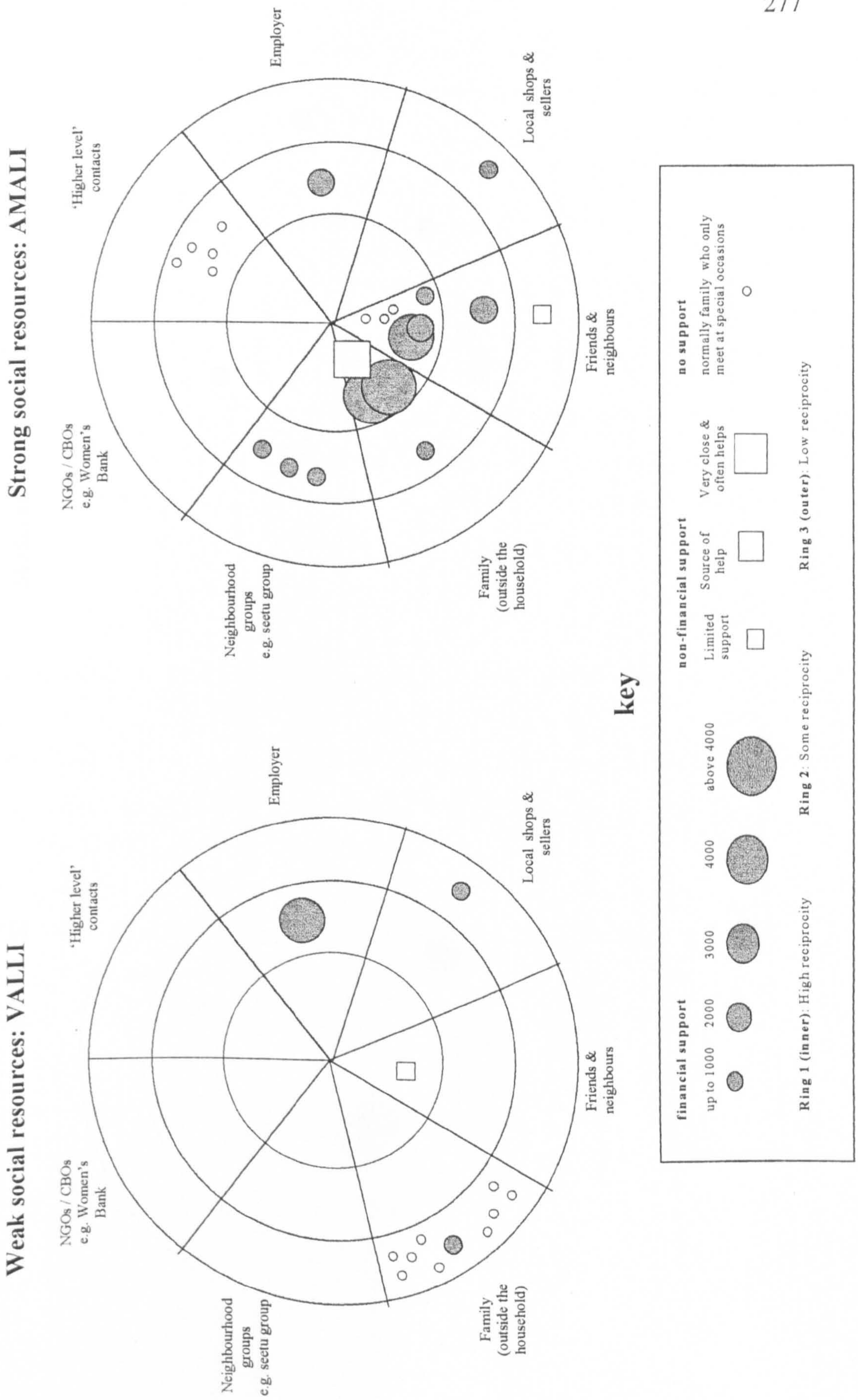
The weaknesses of social resource networks among households that declined, illustrated by the example of Valli (Figure 9.3a), included:

- only one or two friends and family members who were willing or able to offer support;
- limited resources or relations of reciprocity among most friends and family;
- no household members belong to a *seetu* group;
- no household members belong to a savings and credit society, such as the Women's Bank;
- employers and the local shop are the most important social assets in their network.

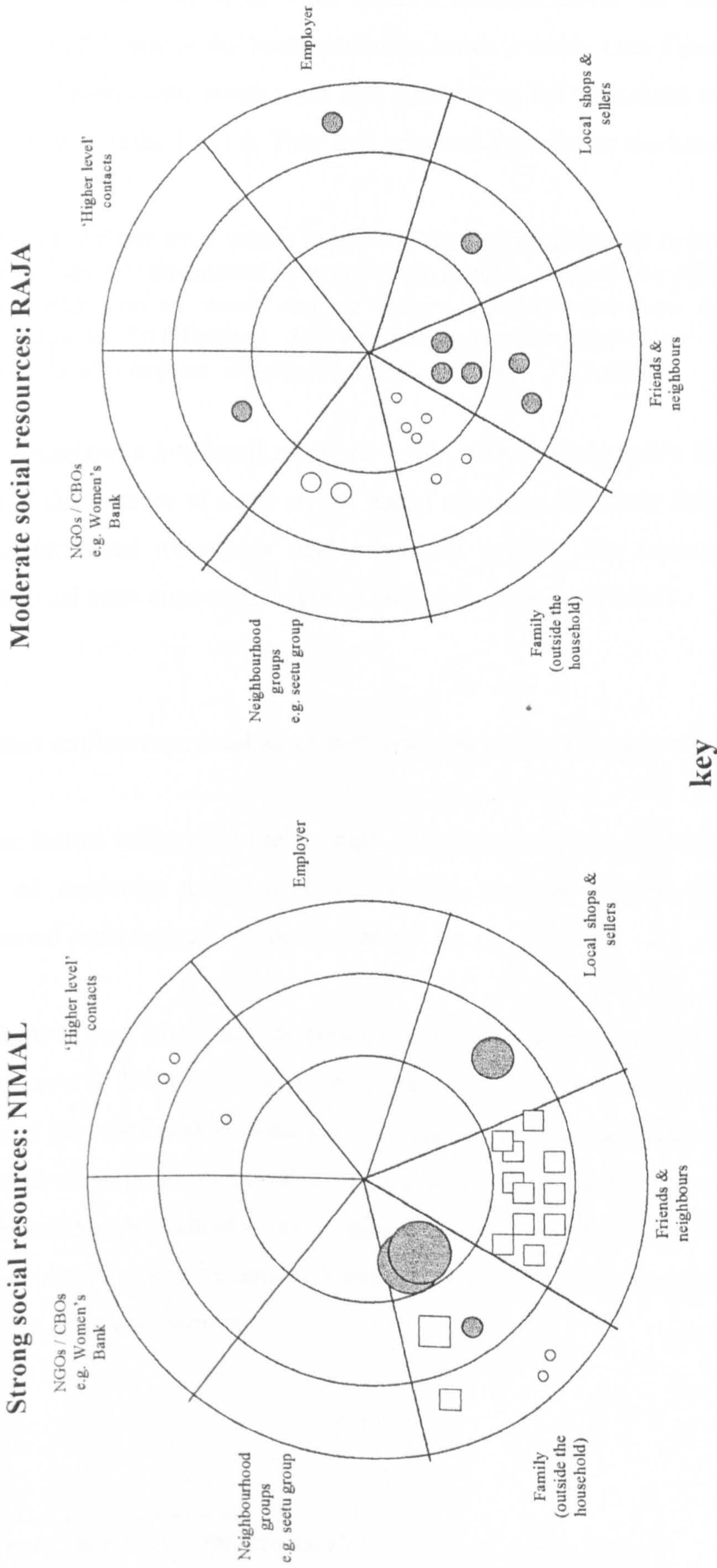
In contrast the strength of social resource networks among households that remained stable or improved is illustrated by the examples of Amali (contrasted with Valli in Figure 9.3a), and by Nimal and Raja (Figure 9.3b). Stronger networks were characterised by:

- several friends, family members or work colleagues who are willing or able to offer support;
- greater resource potential and relations of reciprocity among friends and family, although among those with moderate networks this resource potential is more limited (see Raja in Figure 9.3b);
- membership of *seetu* groups or savings and credit societies such as the Women's Bank (although Nimal was an exception here due to serious income shortages);
- employers and local shops are also important social assets.

**Figure 9.3a: Social resource networks
Sources of financial and non-financial support**



**Figure 9.3b: Social resource networks
Sources of financial and non-financial support**



key

financial support		non-financial support		no support	
up to 1000	2000	Limited support	Source of help	Very close & often helps	normally family who only meet at special occasions
3000	4000				
above 4000					
Ring 1 (inner) : High reciprocity	Ring 2 : Some reciprocity	Ring 3 (outer) : Low reciprocity			

Amali's social resource network was much stronger than Valli's. It provided vital insurance in the form of food gifts and cheap loans that sustained consumption levels without serious debt, at times when Amali's husband could not find work and their income levels fell below the basic minimum needs poverty (see Figure 7.6 and Figure 9.6 below). These social assets were also available to the household when they incurred illness costs in months 5 and 6. They also provided security for the future:

“I can't think what would happen if my husband had an accident or something but I am not too scared because of my family...It would be difficult but I can ask for help and we would not go hungry. I could even move back there (to her village in Embilipitiya). My husband's brother and sister here in Colombo would also help us. We could manage like that...” (Amali).

Amali's household's livelihood remained stable, despite comparable losses of income to those of Valli, because of these strong social networks. Similarly Nimal's strong social networks increased robustness³ and prevented decline. The factors explaining these different social asset endowments are examined in more detail below.

9.4 Factors explaining social asset endowments and borrowing strategies

The main factors influencing the strength of a household's social assets, in terms of the number of contacts, the resources available, and the degree of reciprocity that characterised exchange, are set out in Table 9.4.

These factors were important determinants of borrowing options and strategies. They relate to several dimensions of poverty: measurable ones such as income or material assets; and less measurable ones such as concerns about self esteem and gossip, and concerns about reputation or relationships with friends and family. Income-poor and asset vulnerable households were more likely to suffer from these interlocking pressures, including low income and social inferiority, and so were more likely to have weak social asset endowments.

³ See Chapter 2, section 2.2.2, for definitions of vulnerability and robustness.

Table 9.4: Factors influencing social asset endowments

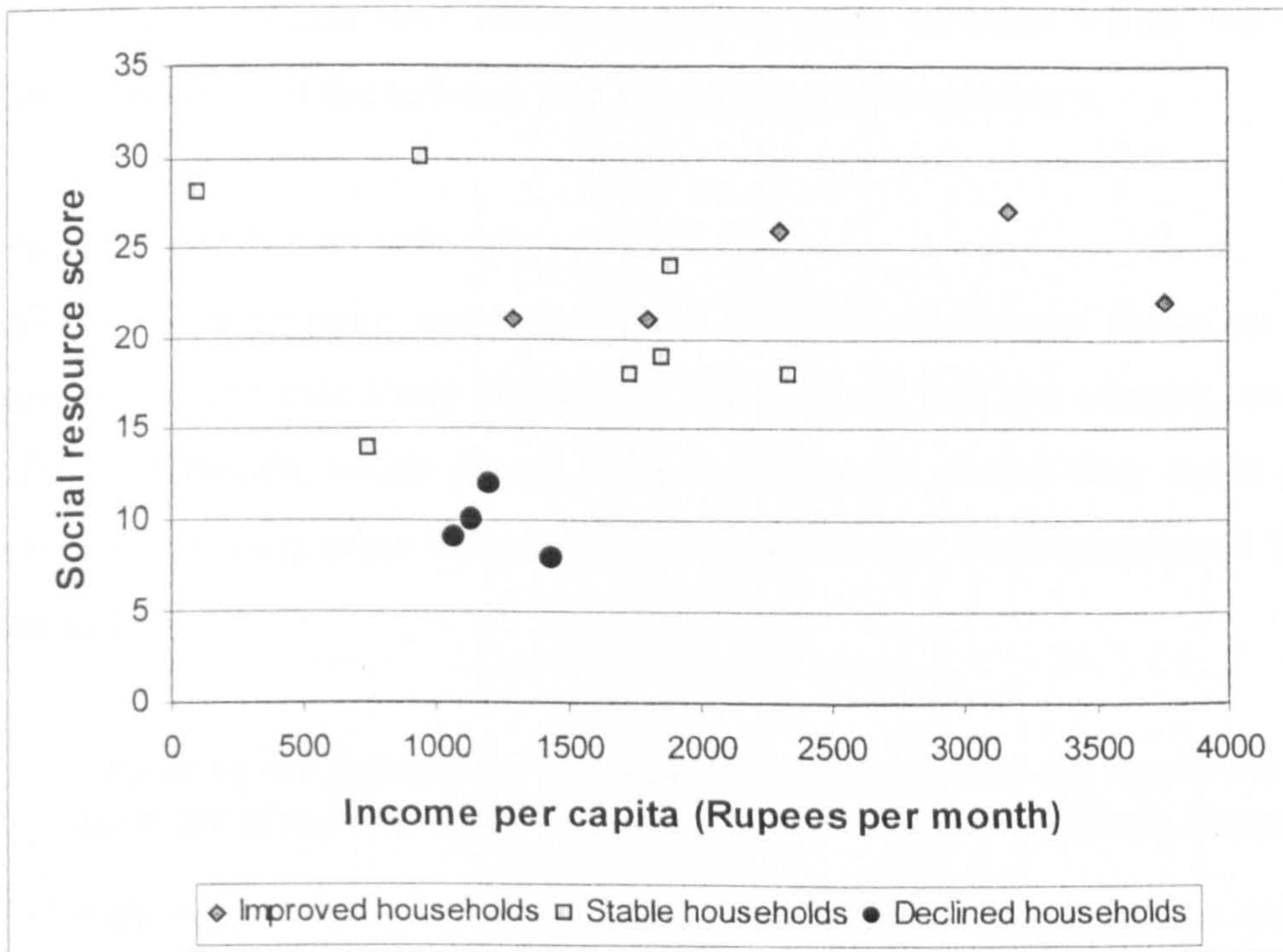
1. A household's income and material asset levels, and the income and assets of its contacts in the network.
2. How a person perceives the 'social cost' and stigma of borrowing, in terms of:
 - the shame or loss of dignity in asking for help;
 - tensions or threats to the relationship which might arise if repayment cannot be made;
 - concern that others will find out about your requests and debts and start gossip about you;
 - the hierarchy that might develop between lender and borrower: obligations of debt can be used against you in the future.
3. Reputation: how a person is perceived by others:
 - the general respect a person commands: whether they gossip, their past community activities, their family background etc.;
 - reputation with past repayments;
 - their reputation for being 'careful with money' and 'deserving' or not deserving help.
4. Whether that social asset has already been exhausted through previous claims.

9.4.1 Income and material asset levels

Income-poverty restricted the strength of social resource networks. Figure 9.4 plots the relationship between household income per capita and social asset scores among the 16 case study households. This was positive but not statistically significant, since several households had relatively high scores but low incomes, and vice-versa. The two most extreme anomalies were the households of Nimal and Amali, which had high social resource scores but low per capita income. Not surprisingly, income alone did not predict the overall strength of a household's social resources.

Nevertheless, in relation to households that declined, remained stable or improved, the data reveal some broad patterns. Firstly, households that declined suffer deprivation both in terms of low income and weak social assets. Moreover, they form a cluster of points that may suggest their weak social assets are, to some extent, associated with low income. In contrast the plots for improved households may suggest stronger social assets are associated with higher income. The four stable households with higher incomes than those that declined also had stronger social asset scores.

Figure 9.4: Household income per capita and social resource score



The two main anomalies on the graph, Nimal and Amali, do not necessarily go against the relationship between income and social asset score, because the strength of their networks was due to the material wealth of their relatives. Although Nimal's and Amali's households were poor, they had relatives with high incomes and asset levels who frequently helped with money and food gifts. In other words the income and material resources of the network as a whole require consideration.

Friendship and family networks

Qualitative data revealed more clearly the influence of material assets on social asset endowments. The case study households that declined had low incomes, and in general so did their friends, which placed strict limits on the money they could obtain from friendship networks; other income-poor households that were interviewed faced similar constraints:

“All of us are fighting for survival. When I don't have ten rupees the people next door are also in my situation, so how can we ask them” (Marie Muttu's wife).

“We cannot borrow from friends... around here the people we know have no money....” (Valli).

Their own low income situation also made these people reluctant to borrow from friends because they feared they would not be able to repay debts, which would generate tensions.

Family support networks among households that declined were also limited by income-poverty. Parents and siblings could not help financially, and respondents stated they were in a similar position:

“How can I ask my sister for help when she needs it herself?... I am also worried because my husband's father in Avissavela is old and sick and will soon be needing help... if my husband goes back there to help how will we live here?” (Selvaraja).

“My sister does labour to feed her family, she has four sons and her husband's a drug addict... I have to help her but I can't give much” (Sumithra).

“There is no help. They do not have (money) to give, and we don't expect it” (Valli's wife).

Thus relationships with parents or siblings among declined households were, in nearly all cases, limited to occasional meetings, usually once or twice a year at special occasions such as weddings, funerals or Sri Lankan New Year.

In contrast households that remained stable or improved had at least one set of contacts – either friends or family – that had money available to provide financial support and were willing to do so. And in some cases both friendship and family networks were in an economic position to offer financial support.

Among stable households, the friendship networks of Nimal and Nishanthi were weak due to income-poverty:

“For loans I go to the women’s society (Women’s Bank), my sisters or I pawn something – up to now we haven’t taken loans from friends or the neighbours – they don’t have (money)” (Nishanthi).

Nimal stated he could not borrow from friends because he had no money to repay them or reciprocate. Many of Nimal’s friends also lacked money. However, a large network of friends gave non-financial support (see Figure 9.3b): four close neighbours occasionally gave him food, one offered free or cheap 3-wheeler rides to the hospital, and a circle of other friends gave blood to the hospital blood bank on his behalf which allowed him to get his regular blood transfusions free of charge.

These households could, instead, rely upon close family members with relatively high incomes. In particular Nishanthi had a younger sister who had received a large insurance payment following the death of her husband (over Rs.100,000), and could go to her at times of financial stress:

“When something happens to me I pawn something or ask my sister...When my husband had his kidney operation I borrowed Rs.6,500 to do a puja...she said I can pay this back to her whenever I can” (Nishanthi).

Nimal’s household relied heavily on family networks for their survival. His side of the family did not contribute as much as his wife’s side, but they gave food and he often visited them for meals. His wife’s family regularly helped with large amounts of money and food, which provided their basic necessities:

“I do not like to ask from my friends because they are also poor and my wife is proud and does not want to be seen to be begging. But she has a sister in Matale (nangi) who is very supportive. Her husband is a good businessman so he has money and they often provide help – food or money.” (Nimal)

Geetha could also borrow money without interest from three of her six sisters:

“I am close to three of my sisters, we often visit and occasionally borrow money without interest...If I borrow from my two younger sisters I can pay back at any time, whereas I pay back my elder sister within a month” (Geetha).

Other stable households were in the opposite situation, with income-poverty placing strict limits on family networks, but with stronger friendship networks. Raja and Renuka had poor relatives who could not be called upon for financial help, even though they had close affective ties:

“If there is a need for money I go to friends not to relatives – my brothers and sisters (from Badulla) have more financial difficulties than my wife’s family, but we visit each other a lot. My wife’s relatives are too poor to help financially, even though one sister (in Modara, Colombo) helps a little...she would like to help more but her husband is a labourer and they don’t have much...” (Raja).

Raja and Renuka had stronger resource networks among friends because more cash was available in these networks. They had three or four friends who they could go to for financial help in the form of small cash loans of about Rs.100–200, enough for a day’s food or a private doctor’s fee. These loans had no interest or time limit.

Lastly, some stable households (Amali and Ranjni) and all improved households had strong friendship and family resource networks, because of higher incomes within these networks. In general they preferred to draw on friends for small, frequent loans, rather than go to family, although family contacts were there as an ultimate source of help if ‘bigger’ help was needed:

“In an emergency I go to neighbours for help first, not family, because they are close” (Dilani)

“In an emergency we borrow from and lend to neighbouring houses. In an emergency first I go to neighbours who I am friendly with and consider good. It is later that we go to relatives – it is very far, no” (Amali).

“It is friends who are there for everything, more than relatives. I have a lot of friends in Obesekrapura, especially Vidya, Namali, Mary, Ruchira and Iresha.

They help with everything at home. If there is a need they go to the shops for us, cook food for us, even wash clothes and give. When we get an illness they come and help a lot...because of that they are there for us before relatives and siblings. I can borrow at any time, exchange at any time” (Rani).

In addition, Amali and Rani, and households that improved, had one or two friends who could offer larger sums of money (above Rs.1,000) with no interest or time limit to repayment. For example one of Amali’s six close friends had lent her Rs.1,500 to buy items for the baby, and later Rs.1,000 to pay for a *seetu*. Another had lent her Rs.1,000 for daily needs when they were running into financial difficulties because her husband had no work (see Figure 9.3a).

Group reciprocity: *seetu* groups and savings and credit societies

Low daily wages barely adequate to cover daily food needs also restricted income-poor households’ access to *seetu* groups. Selvaraja and Valli, for example, did not have enough surplus money to make regular payments to a *seetu*. Income-poor households were also reluctant to commit themselves to regular *seetu* payments because on certain months it was likely they would have to borrow money to make the payment:

“We cannot do seetu, sometimes we would have to borrow from a money lender to pay the monthly payments on time” (Jayasinghe’s mother).

Well established members of *seetu* networks argued that income-poor women were usually not allowed to join a group, because their low income posed a financial risk to other *seetu* members, especially the organiser:

“The very poor are not taken for seetu for a good reason – they have no way of paying and if that happens the person who organises and collects the seetu falls into trouble” (Pushpa)

“Poor people cannot join – if she fails to make a payment then I (the organiser) have to pay their share for that month and I have often had to borrow money to do this” (Dilani)

Most stable or improved households could participate in *seetu* groups because they had enough income after daily needs had been met, and they were usually well established members of one or more groups: Pushpa and Dilani were involved in four groups each; Amali and Mary three each (see Figure 9.3a); Rani two and Mayori one. Nishanthi and Renuka were *seetu* organisers. Some could only allocate small amounts to *seetu* but

those with higher incomes invested heavily (Dilani, Mary, Mayori; see Table 6.6 in Chapter 6).

Savings and credit societies were more accessible for income-poor households than *seetu* groups, because their payment requirements were lower and more flexible (Chapter 4). This is because NGO initiatives to start savings and credit societies targeted poor women and the minimum weekly contribution was set very low at Rs.5 per week.

Nevertheless, women from income-poor households like Selvaraja, Valli and Sumithra were not members, firstly because they did not know much about the societies or whether to trust them, and secondly because they had not been asked to join by the leaders in the neighbourhood. Both these factors indicate a degree of social exclusion:

“I heard they had started a group but I was not asked to join. Someone came from the organisation and talked about it, then Dilani started the group. I am not sure if they are still doing it...I know Dilani and that group are good friends and have done seetu before... Anyway I have no time for the meetings, and you have to save money – how can I do that with our difficulties?” (Selvaraja).

Being asked to become a member of a Women’s Bank group was often dependent on contacts with the local activists involved in setting up the societies, but women from the poorest households often lacked these contacts because they were not part of established *seetu* networks:

“Sandaya came and said ‘why don’t you start a group?’....So we asked the women to come to a meeting and we decided we should do it. It was the women I know from doing seetu...we are a close group – before we all lived together at Weluwenaramaya – and we know we can work together like this because before we have done seetu well, without problems” (Dilani).

9.4.2 Loss of dignity and gossip: the social costs of borrowing

The social costs of borrowing from friends and family

Borrowing was circumscribed not only by cash limits, but by the stigma and the social repercussions of asking for help, which was seen to be degrading, likely to generate gossip (see Chapter 4, section 4.2.2), and likely to cause problems in the relationship if repayment was not forthcoming. Debt obligations could also be used against you in the future:

“There is a custom (sirithak) in this area that if one asks like that it is degrading – they tell me that so and so came and asked for money. Even if a cup of tea is given it is talked about – they say they ate and drank from us” (Charlotte).

“The people are not good here – everyone gossips – so I do not borrow from friends here but from my family” (Mary Emilda).

“We cannot borrow from friends – it is too embarrassing if you can’t pay back, and anyway around here the people we know have no money....” (Valli).

“I don’t ask because I don’t know whether they will tell others I have asked for money...if you borrow money then at the time of an argument they say such things and scold” (Sumithra).

Borrowing from family networks was also circumscribed by dignity and fears about the implications of being in debt to one’s siblings. On several occasions failure to repay or reciprocate had generated resentment, harsh words and relationship breakdown:

“I don’t speak to my brother...we borrowed money to send my son abroad (Rs.10,000) and after he said some bad things to my husband, and how we had not repaid the money. Now my husband won’t go there and we don’t speak, but we’ll pay the money” (Mary).

In a few cases a loan between siblings also generated a ‘hierarchy’ in the relationship (*I have done you a favour; I am more successful than you; you owe me one*) which exacerbated resentment (Mary, Sumithra, others).

This social ‘price’ of borrowing applied to all households, but was possibly a more powerful restriction for income-poor households for two inter-related reasons. Firstly, because they knew they would encounter repayment difficulties (*“we don’t borrow – how could we pay?”*). And secondly, because income-poor respondents appeared to be more self-conscious about *“what friends might think and say”* about them if they asked for money:

“How can you ask, when you know you can’t repay ... (and) have you not heard the gossip (katawal) of the women in this area? They will say all sorts of things and spread rumours” (Selvaraja).

“(I wouldn’t want)...other people talking about us when we walk down the street, saying ‘they haven’t paid them back yet’” (Valli).

“We got angry with the people opposite...they talked as if we always eat and drink from them – but although we don’t have enough to eat we don’t go to ask like that” (Valli).

These social norms placed strict limits on borrowing networks, and contributed to the low social asset scores of declined households. The most extreme case was Valli, who felt she could not ask even her one close friend for money:

“The only person I can speak to is the neighbour next door. I talk with them, go and visit them at times of illness. But I can’t ask for money of course, there are no such relationships. If we require money we borrow on interest only. Though there are friends it’s not possible to take like that. Those friendships are for conversation. If there’s an emergency at home [they’ll] help. Like that” (Valli).

Worries about loss of dignity and gossip appeared to be slightly less intense among households with relatively higher incomes (some stable households) and the more economically successful (i.e. improved) households, for several reasons. Firstly, economic success meant these households often gave as much as they took, and were confident they could quickly repay loans so were less worried about gossip, damage to the relationship, or debt obligations being used against them in the future.

Secondly, the comparative economic success of improved households, often coinciding with higher levels of education among their members, contributed to their higher self esteem and confidence in their abilities or position in the community. This reduced worries about their dignity or ‘*what people might say*’ if they asked for money, and anyway such favours could be reciprocated so a ‘hierarchy’ of obligation was less likely to develop.

Sources of credit with lower social costs

The social limits to borrowing from friends and family applied to all people, albeit in differing degrees, and in general they preferred to make claims on alternative social resources that did not threaten dignity or close social relationships, especially through:

- credit from local shops and sellers;
- loans from an employer;
- moneylenders.

Credit from shops is considered more socially acceptable because the exchange is more like a business transaction and less like a favour: it is perceived to be a purchase with

only a slight delay in payment. Secondly, with respect to asking for loans from an employer, there was often no fear about loss of dignity because some types of employer are expected to provide assistance to employees in an emergency. For example among women who worked in domestic service it was considered normal that house owners could be asked for help in an emergency, and repayment could be made through deductions from wages. There is also less concern about hierarchy developing in the employment relationship because the relationship is often already hierarchical.

To differing degrees there was also less risk of stigma attached to asking for help from an employer because they are located 'outside' the community, either socially or geographically distant so that loans are taken with very little chance of this becoming public knowledge and open to gossip. Because these contacts are outside the community and the employer is not part of the gossip network, they were important resources for all types of household. Mary's household, for example, did not go to friends in the community when they needed help (usually for investments), but instead used the husband's business connections 3 miles away:

"We don't like to borrow from anyone here in SSP... the way people talk around here...if necessary my husband asks his brother or brings from his workplace, even on interest...For small amounts I borrow from the society" (Mary).

Credit from shops and claims on employers were particularly important for income-poor households because they had weaker social resource networks among friends and family and were possibly more susceptible to the social costs of borrowing within their own neighbourhoods.

Finally, social networks of family and friends were often by-passed altogether due to fears about loss of dignity and gossip. Instead people preferred to go to a moneylender and pay interest, even though they had other options, for the same reason people use shops for credit: borrowing from a moneylender is perceived as a business transaction not a favour, in which the moneylender makes a profit from the client, often by charging a very high rate of interest (in fact the moneylender is the actor who usually develops a bad reputation from such transactions, not the borrower):

"I am very scared of loans of course. My brothers have a lot more money than I have but I don't go to ask because my brothers' wives are not good (i.e. they will gossip about her). Because we take on interest, there is no problem, no.

They can't shout, no. [We] prefer dealing with these people, rather than with our own brothers/siblings (sahodarayan)" (Mayori).

Income-poor households also went to moneylenders so as not to be seen as beggars, as the quote by Valli in the previous sub-section suggested (*"If we require money we borrow on interest only"*). Similarly, other income-poor households preferred to go to moneylenders to avoid loss of dignity and gossip:

"I don't take loans from anyone here. I take from outside on interest payment" (Nandawathi).

"If money is needed urgently, no matter who we associate with, it is from the moneylender that we borrow money" (Sumithra).

9.4.3 Reputation and respect

The strength of social resource networks was also influenced by a range of other factors related to your reputation as a 'good' or 'bad' person, as somebody that could be trusted or not. Clearly a multitude of factors influence how a person is perceived: a range of past actions or behaviours; personality, charisma and temperament; ability to make friends; and whether and how one participates in community activities. Although a huge range of stories about people's character or reputation emerged during the research, three aspects of reputation that influenced a person's ability to borrow money or make claims were particularly important.

General reputation as a good and trustworthy neighbour

Most women from improved and stable households, such as Rani, Amali, Mary, Dilani and Mayori, appeared to have many friends or contacts in their neighbourhood, and in particular participated in more than one *seetu* group and a Women's Bank group. Others in the community commented that they were 'good people', or 'good neighbours', that they 'spoke nicely' and did not 'gossip' or 'tell tales' about others⁴.

Strength of contacts with people involved in *seetu* or credit and savings groups, and acceptance into these group-based activities was, in particular, influenced by your reputation as a good neighbour and whether you could be trusted not to talk about what

⁴ As noted in Chapter 4, section 4.2.2, trust among women was largely defined in terms of gossip.

people said in society meetings (as well as trusted to pay your contributions). In fact an informal or formal rule of many savings and credit groups in SSP and Obe was that things discussed and said in meetings should not go beyond the group to outsiders. Some Women's Bank groups collapsed due to gossip outside the meetings about members.

Reputation for (re)payments on time

To be trusted to join a *seetu* group or a savings and credit society, or to be given a loan by friends and even family, one's reputation for regular payments or repayments was an important asset. Developing a reputation for honouring *seetu* payments was easier for economically successful households with higher incomes, because they had more opportunities to participate in *seetu* and were more able to ensure payments were made on time. In other words income is an important pre-condition for investing in group-based social resources because there is a virtuous circle of cash availability, ability to participate in networks based on group reciprocity, development of more *seetu* contacts, and better payment reputation among the network. Similarly higher income allows more frequent one-to-one borrowing and timely repayments, which builds up a reputation as somebody who is trusted to repay.

Conversely, income poor households struggling and failing to repay loans or honour regular *seetu* payments had a tarnished reputation and became less creditworthy, jeopardising future access to credit or *seetu*. There is a vicious circle of cash shortages, inability to repay debts or honour *seetu* payments, and exclusion from credit or *seetu* networks. Declining households' social asset endowments had been eroded by such processes, for example Selvaraja, Jayasinghe and Sumithra increasingly struggled to settle credit accounts at the local shop and these places stopped giving them credit while research was being conducted.

Sumithra and Valli did have relatives with enough income to be a potential source of financial support, but in the past they had not repaid or reciprocated loans from relatives which had led to resentment and an end to further claims. Valli's husband, for example, had been ostracised by his family and not spoken to his six siblings who all lived in Colombo for several years. Tensions had arisen because he often asked his mother or brothers for financial help, and over the years had not repaid, until eventually they accused him of dishonesty and wasting money.

Reputation for being careful with money and ‘deserving’ help

Related to somebody’s reputation for repayment was their reputation for being careful with money, spending wisely, and thereby having money left over to save. For example not all poor women with financial difficulties were excluded from *seetu*. Some *seetu* organisers and members stressed that poor women who were ‘careful with money’ and put aside small amounts for *seetu* could be trusted to join and pay. This view was especially common among women who had links with NGOs that had promoted savings among the poor, and started savings and credit societies. These organisations had shown them what people could achieve even if they saved only Rs.2 per day.

A woman’s reputation for careful financial management was, however, also dependent on her husband’s activities and behaviour. If he was also careful with money and gave her the freedom to put aside extra cash at the end of the day, she was more likely to be accepted. But many poor women were prevented from joining *seetu*, and savings and credit societies, because their husband was known to be involved in illegal business activities such as selling alcohol, and might use the society to get loans to fund the business⁵. Women with husbands who drank or who had other drug problems also found it hard to join because access to their husband’s wage packet was unreliable:

“It is difficult for us to accept these people...It is sad but we don’t know they will make the payments. They may work and have money but I know some husbands who scold or hit if they (their wives) do not give (money)” (Mary).

For poor households, the ability to make claims on social assets was also connected to whether they were perceived to be ‘deserving’ or not, and a person’s or household’s reputation for good or bad financial management strongly influenced this perception or reputation. The dominant view among people in the two communities as to why some households became or remained poor placed a lot of blame on individual irresponsibility: not working hard, not saving, spending too much and wasting money, especially on drugs⁶. If a household fell into this category of ‘undeserving poor’, then financial support was hard to come by, even from one’s family.

⁵ A formal rule of the Women’s Bank was that people could not join if they were connected to people involved in moneylending or the arrack business.

⁶ Conversely, to climb out of poverty and develop you had to try and work hard, ‘get tired’ (*mahansiyy wenna oone*), be clever with business, not spend too much and manage finances well. Fate also had to be on your side, however.

For example Nimal was seen as a 'deserving case' due to his illness and received a lot of support from family to sustain his livelihood, but his friends also provided a lot of non-financial support. In contrast Valli's husband's poverty was perceived by his family to be his own fault, his financial difficulties the result of wasteful spending on alcohol and more general financial mismanagement, which had led to the loss of his family's trust and support. In addition, Valli's husband felt his brothers' success had made his failings all the more apparent to his family and had contributed to his isolation:

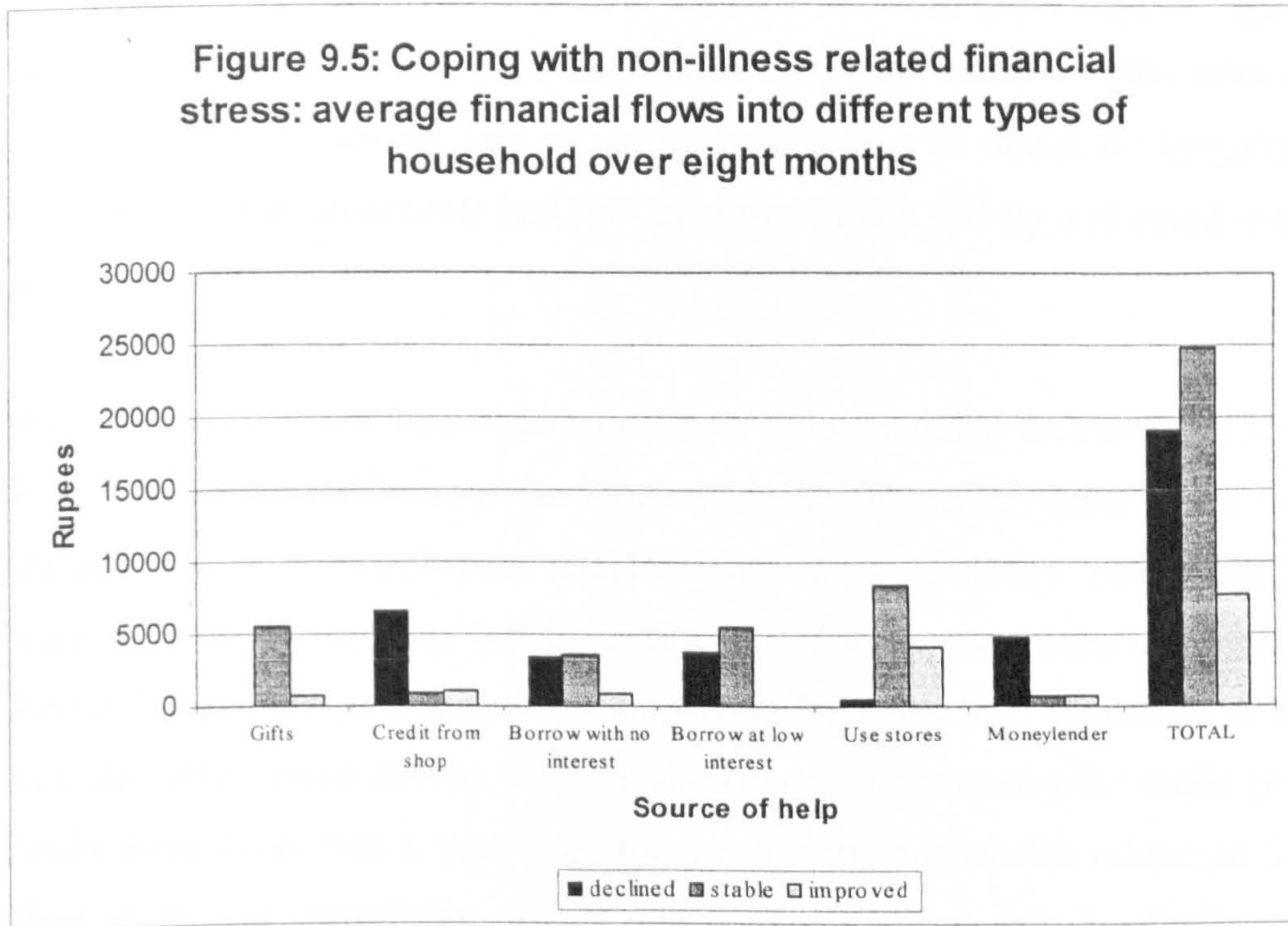
"We have lived completely apart for 13 years. My brothers are employed, have no financial difficulties, and have built their own houses...one has bought a three wheeler. Although I am like this (gesturing to show he is talking about his small wooden house, broken floor and by connotation his poverty), all the other members of my family are doing well, have jobs and have achieved a better status...Now they are proud and don't come and visit" (Valli's husband).

9.5 Implications for borrowing strategies

Resource mobilisation for non illness-related stresses

Figure 9.5 shows the average level of resources mobilised by the three different types of household over the eight month research period for all non-illness related stresses. The vast majority of inflows were cash but there were some food gifts (especially for Amali) for which a cash equivalent figure was estimated. The graph indicates some notable differences between the three types of household (declined, stable, improved).

Improved households needed to mobilise fewer additional resources to deal with stresses because in general their household budgets were placed under much less stress. Those that did need to mobilise resources usually pawned jewellery, although a range of other strategies were used to a lesser extent.



There were big differences between stable and declined households with respect to types and levels of resource mobilisation for non-illness related stresses (Figure 9.5). Although both types were on relatively low incomes, stable households managed to prevent decline because they had more stores to mobilise (jewellery, savings and *seetu*) and received more gifts. In particular Nimal and Amali relied on gifts from family as a form of insurance against loss of income, either due to illness or irregular work. In contrast declined households had few stores on which to rely and could not claim any gifts.

Stable households also borrowed more at no or low interest than declined households – from family (Nishanthi), from the Women’s Bank (Nishanthi, Rani, Raja), from friends (Amali) and from employers (Ranjni, Nishanthi). Declined households relied on relatively cheap borrowing, but from different sources: they were not members of the Women’s Bank and relied more on employers for loans than on friends or family. But they also relied more heavily on local shops and moneylenders for credit (Figure 9.5). Credit from shops was a vital asset for low income households reliant on daily labour when work was unavailable or lost due to illness, since they drastically reduced the poor’s borrowing from moneylenders and mitigated debt burdens (for example see Selvaraja’s coping strategies in Figure 9.2).

Stable and declined households’ different ability to manage financial stresses was a distinguishing factor in their respective robustness or vulnerability. These differences are exemplified by the cases of Valli and Amali (or Nimal), at either extreme of coping capacity (Figures 9.6 and 9.7). At times of income deficit (the negative bars in the figures), Amali’s household relied on gifts from family and borrowing from friends, whereas Valli’s household relied more heavily on Valli’s employer but also had to borrow from moneylenders and cut food consumption.

Resource mobilisation to cover illness costs

Households mobilised resources when there was not enough income to cover the direct or indirect costs of illness. Figure 9.8 shows the proportion of direct and indirect illness costs covered through resource mobilisation strategies by the three types of household over the eight months. On average improved households only had to mobilise cash to cover 14% of their total illness costs – the rest was covered by their usual income. Only two types of strategy were needed by improved households to cover illness costs: gifts

covered 9.5% of costs, and pawning jewellery the remaining 4.5%. No borrowing was necessary to cover illness costs.

Ability to pay for illness through usual income was much weaker for stable and declined households, which on average had to cover a much higher proportion of total illness costs through asset and borrowing strategies (46% and 58% respectively – see Figure 9.8). However, the mix of strategies mobilised was very different:

- stable households received gifts, used stores or could borrow at no or low interest. Only 20% of illness costs had to be covered through borrowing, and only 0.5% at high interest from moneylenders;
- declined households did not receive gifts, had fewer stores at their disposal, and relied more heavily on credit from shops. For these households just over 50% of all illness costs had to be covered through borrowing, and 16% were covered through high interest moneylenders.

Figure 9.6: Managing financial stress: Amali

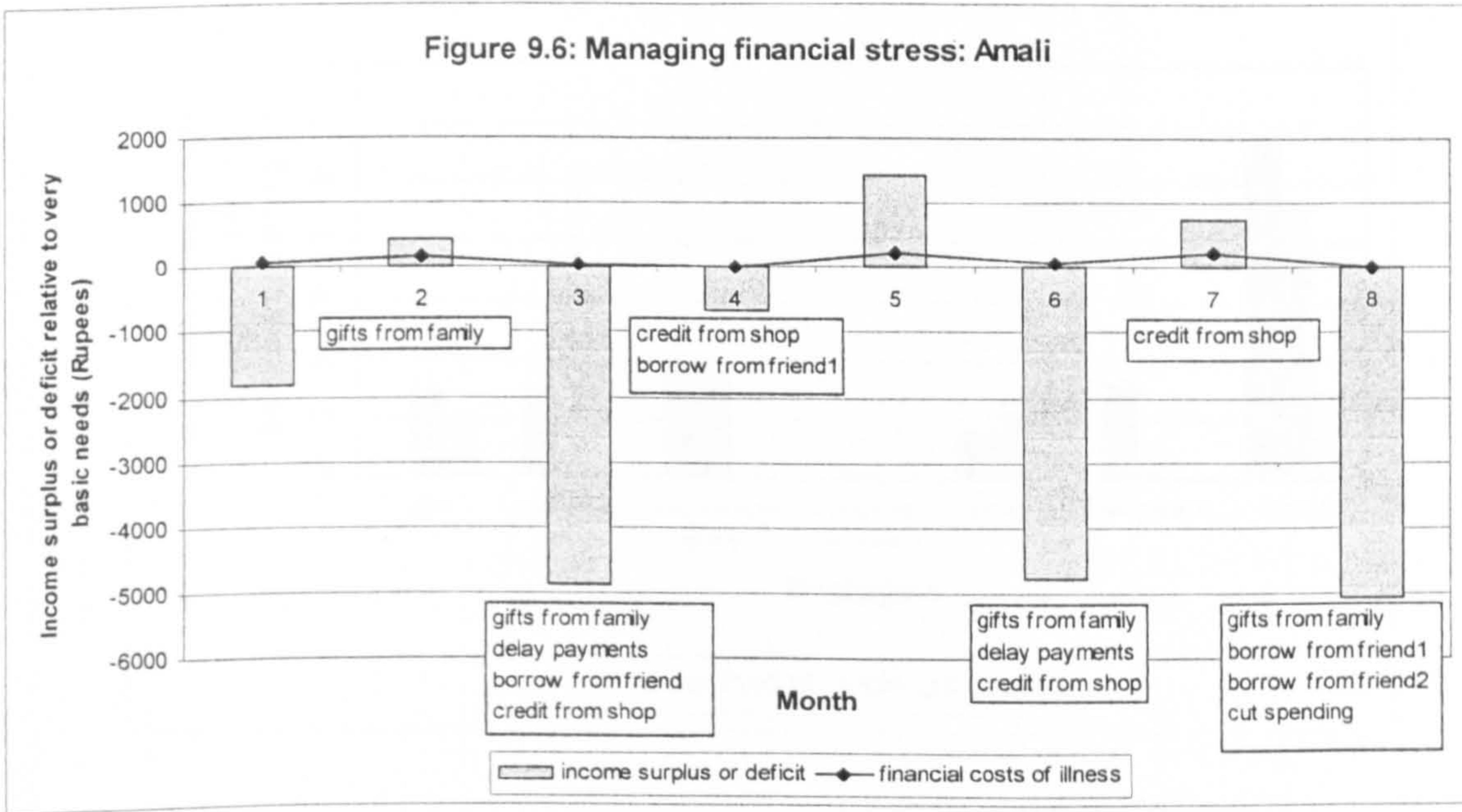


Figure 9.7: Managing financial stress: Valli

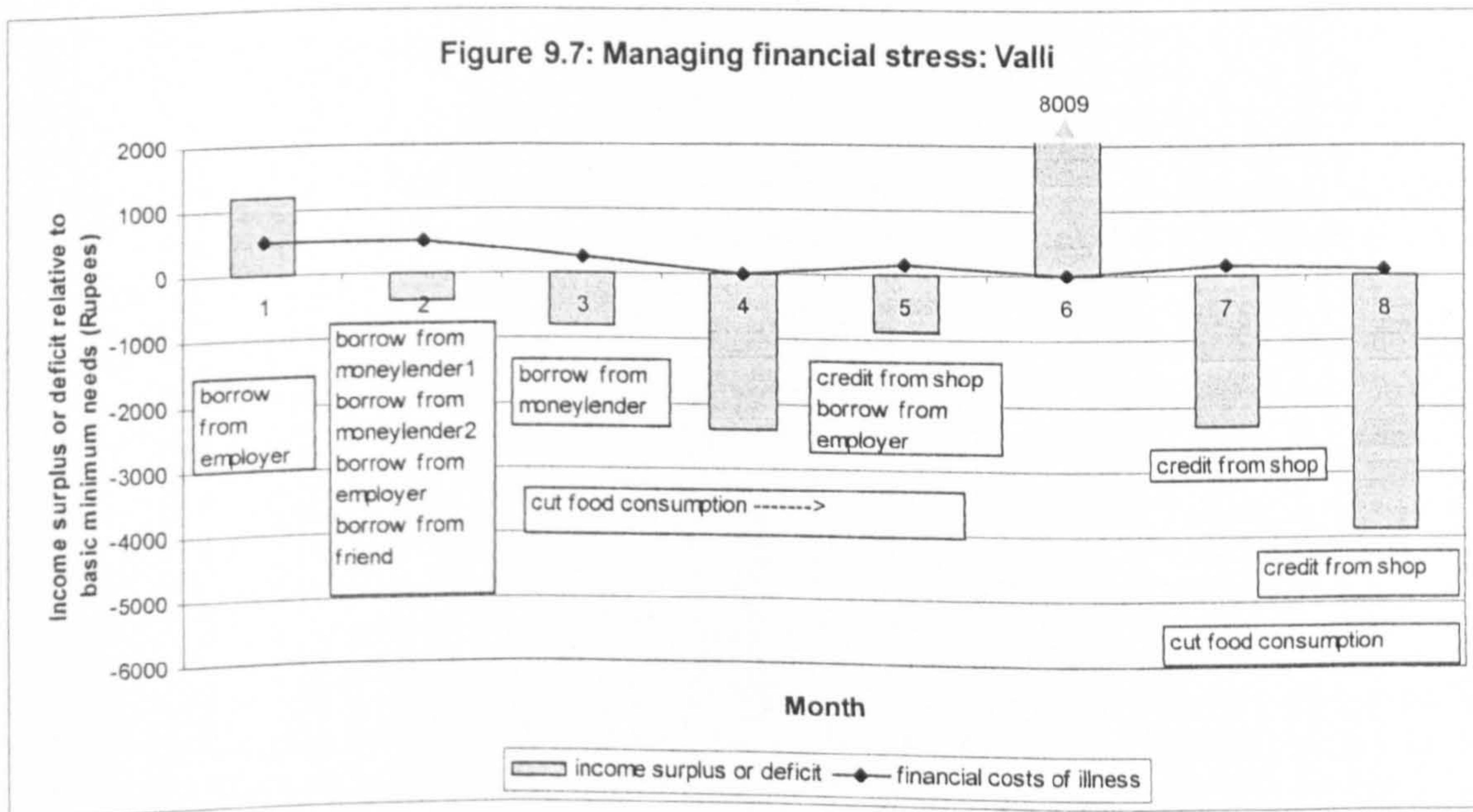
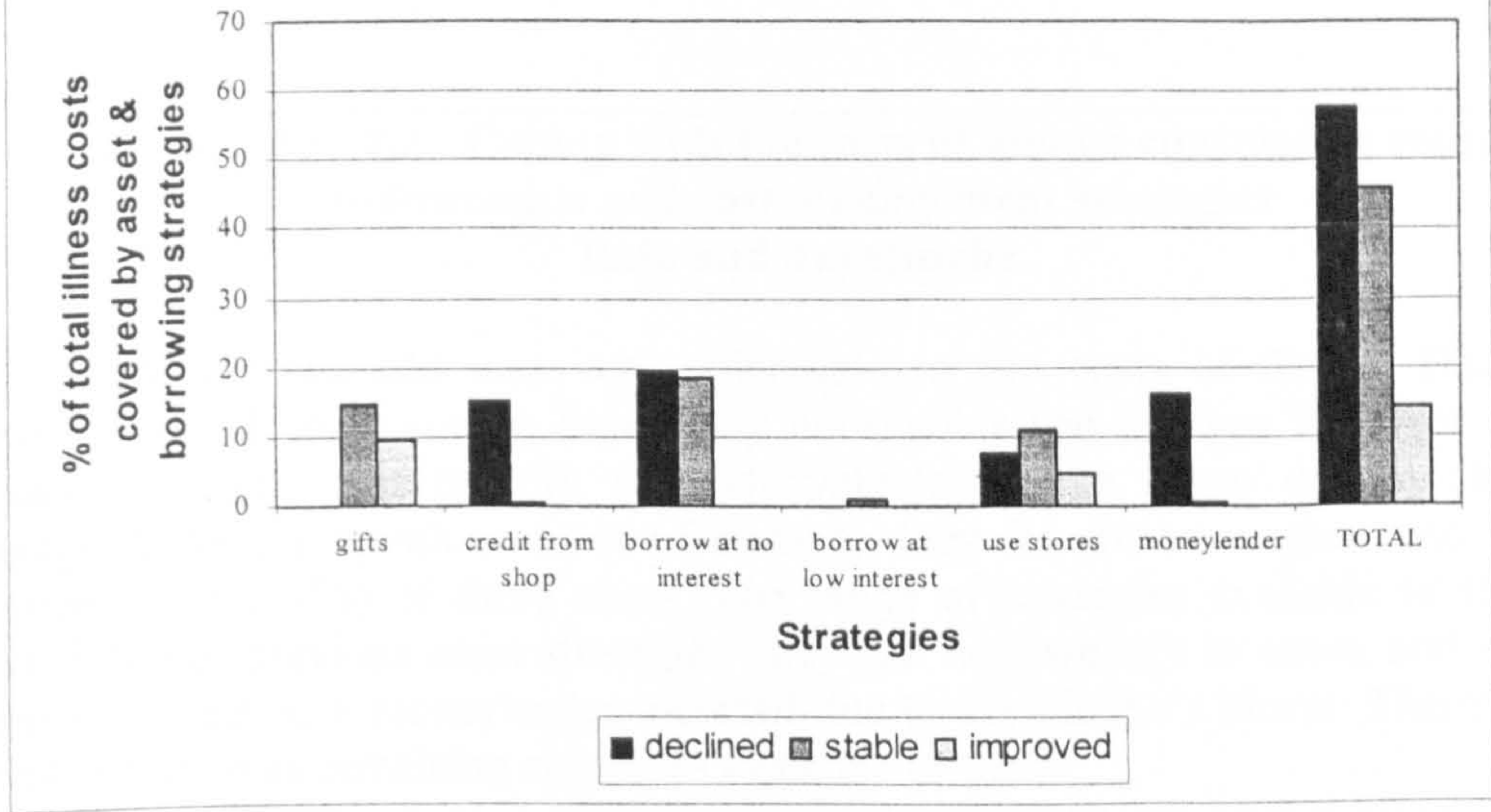


Figure 9.8: Coping with the costs of illness



The two case studies in Box 9.2 illustrate these two groups' different abilities to cope with the costs of illness. The different asset and borrowing strategies available to households influenced the different impacts of illness on household livelihoods over the eight months – in terms of debt burdens and consumption and investment patterns (see next section).

Case study box 9.2 : Coping with the costs of illness: contrasting resource endowments and cost management strategies
Raja and Jayasinghe

Jayasinghe's household was very vulnerable to the costs of illness. Despite the lowest financial costs among case study households (on average Rs.31 or 1.1% of household income per month), and relatively low wage losses due to illness (on average Rs.59 per month or 1.9% of income), they did not have spare cash available to meet most (57%) of these costs. The range of strategies available to them was limited due to previous asset strategies: they had no jewellery to pawn, and were still repaying a debt to a moneylender incurred due to Jayasinghe's illness. Therefore they mobilised the only remaining strategies available to them:

- credit from the local shop and street sellers (covered 28.5% of illness costs);
- a loan from a moneylender at 20% interest (covered 28.5%).

“We don't have enough money for food so how can we buy medicine? We have to ask for credit from the shops but they will not keep giving this if we don't pay, or we get money with interest. I am scared for the future...I can't work for much longer...” (Jayasinghe's mother).

In contrast Raja's household was more robust in the face of illness costs. They experienced a slightly higher financial illness cost burden (on average Rs.190 or 1.3% of income per month) and an average wage loss burden of Rs.664 or 4.2% per month, with most of these losses concentrated in one month. They did not have cash to cover 42% of these costs but had a much broader range of strategies open to them:

- wife pawned jewellery (covered 16.1% of illness costs);
- wife borrowed at low interest from the Women's Bank (covered 8.1%);
- wife borrowed with no interest from work friends (covered 10.2%);
- credit from the shop (covered 4.4%);
- a loan from a moneylender at 20% interest (covered 2.9%).

“The Women's Bank's is good. I can get an emergency loan at low interest for Rs.200 or Rs.500. My friends at work are also very helpful, there is much solidarity...This is good because we don't have to borrow (so much) on interest...” (Raja's wife).

9.6 Implications of social assets and borrowing for livelihoods, focusing on debt levels

The impact of social asset endowments on ATP for health care and livelihoods is difficult to quantify or separate from the range of other factors influencing livelihood development. However, this section traces the direction and relative magnitude of this impact for certain dimensions of livelihood. It first summarises debt levels and repayment burdens for different household groups, and the role of social assets in mediating these debt levels (section 9.6.1). It then examines in more detail, through case studies, social assets as a form of insurance, focusing on the implications of different social asset endowments for borrowing and consumption patterns (section 9.6.2).

The contribution of social assets to ATP and livelihood development is summarised in Table 9.5.

Table 9.5: Summary of implications of social resources

Household type	Main role of social resources	Impact on livelihoods
Improved	<i>strong social resources:</i> <ul style="list-style-type: none"> • enabled low cost borrowing for investment • covered rare financial stresses 	enabled improvement
Stable	<i>strong or moderate social resources:</i> <ul style="list-style-type: none"> • enabled low cost borrowing to cover illness costs and other financial stresses • sustained basic consumption levels • enabled some investment 	prevented decline
Declined	<i>weak social resources:</i> <ul style="list-style-type: none"> • caused borrowing from more costly sources to cover financial stresses • could not sustain basic consumption levels • could still mitigate level of debt burden and declines in consumption 	contributed to decline and /or mitigated decline

9.6.1 Overview of debt burdens

Two dimensions of debt burden are briefly examined below:

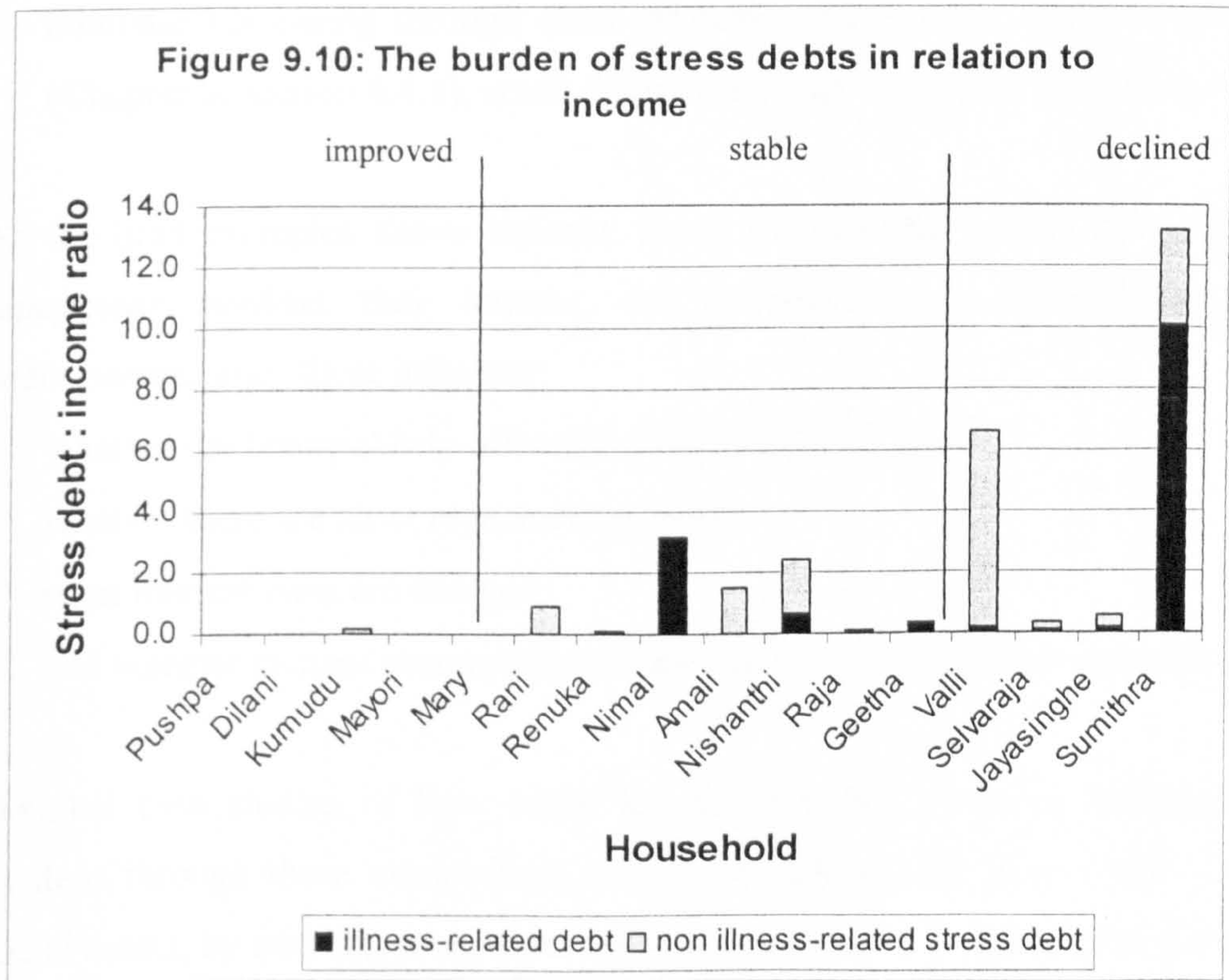
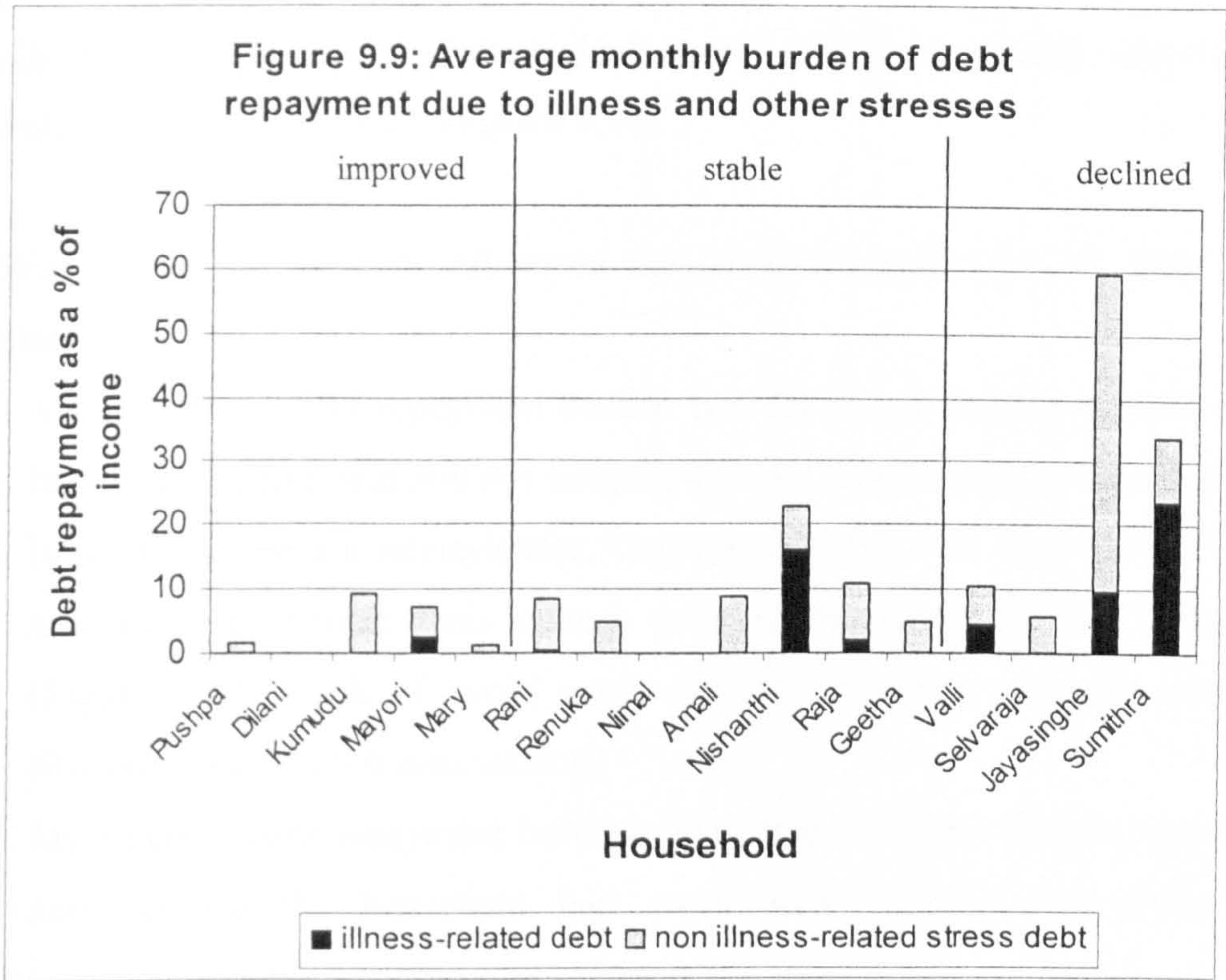
- *Stress debt repayment burden:* debt repayments due to illness or other financial stresses as a percentage of income (see Figure 9.9 for a summary). Debt repayment burdens due to planned investments are not included in this part of the analysis because the this chapter focuses on how well households coped with financial stress.

- *Stress debt-income ratios*: debt level at the end of the research period caused by financial stress, expressed as a ratio of average monthly income (see Figure 9.10). Again debts due to investment are not included.

Improved households had the lowest stress debt repayment burdens (Figure 9.9), because they faced few stresses due to their higher and more secure incomes (Chapter 7), and most had relatively low illness cost burdens. However, social assets mediated these debt repayment burdens, for example Kumudu and Pushpa had a high illness cost burden but this did not translate into a high debt repayment burden because of their social assets. Kumudu's high illness costs stemmed from her father's operation but these costs were covered by gifts from his friends at work. As a result the household had a very low debt-income ratio (0.21) when research ended (Figure 9.10).

Most households from the other two groups had higher stress debt repayment burdens and debt-income ratios, and some of the debt burdens were due to illness costs. Social assets strongly influenced the financial significance of these debt repayment burdens for households. With respect to stable households:

- Nimal's relatively high illness debt ratio (3.1% [Figure 9.10]) was prevented from being a considerable repayment burden because their extended family was going to repay the debt. They therefore had no debt repayment burden over the eight months (see Nimal in Figure 9.9, and Box 9.3 in next section).
- Amali's average debt repayment burden due to financial stresses (9.0%) would have been much higher if they had not had access to a strong social resource network that sustained basic consumption levels without the need to borrow from moneylenders (see Box 9.3 in next section).
- Most of Nishanthi's debts due to illness were from her relatives and the Women's Bank, low cost loans with very flexible repayment schedules. Without these sources of credit her debt repayment burdens would have been even higher (Figure 9.9) and had a negative impact on consumption levels (see Box 9.4 in next section).
- Raja's debts due to illness and other factors were largely from work colleagues and the Women's Bank, low cost loans with flexible repayment schedules. The average monthly debt repayment burden of 10.7% (Figure 9.9) would have been higher if these resources had not been available (see Box 9.5 next section). Cheap loans enabled Raja to repay stress debts quickly and by the end of the research the household's debt burden was very low (Figure 9.10).



In contrast, among declined households stress debt repayment burdens, some due to illness costs, were very high for Jayasinghe and Sumithra (Figure 9.9), and had a significant impact on basic consumption levels. But at the end of research period it was Valli and Sumithra that faced the highest overall debt-income ratio, over 6 times and 12 monthly income respectively (Figure 9.10).

Social assets also strongly influenced the financial significance of debts for declined households:

- Valli's average debt repayment burden was 10.7% of monthly income (Figure 9.9), but the household was still not keeping up with strict repayment schedules on a high interest loan from a moneylender. Consequently the debt was rapidly accumulating and was over 6 times their average monthly income by the time research finished (Figure 9.10). Lack of social assets forced them into this high cost borrowing situation (see Box 9.6 next section).
- Jayasinghe's debt repayment burdens were high because of their very low income, and because the household had weak social assets they took loans from moneylenders at high interest (see Box 9.2, section 9.5).
- Selvaraja had low stress debt-income ratios because the household had managed to minimise borrowing through other strategies, mainly low cost treatment strategies (Chapter 8, section 8.4.1), credit from local shops and loans from an ex-employer.

As the brief examples above indicate, stress debt-income ratios, and in particular the *repayment burdens* they impose, are mediated by a household's social asset endowments, since these influence:

- whether the financial help offered is seen as a gift or a loan;
- whether there are strict repayment schedules;
- what interest rates are charged;
- and whether interest accumulates if repayments cannot be made immediately.

Detailed case studies of how social assets, or a lack of them, mediated repayment burdens through these mechanisms, are set out below. The case studies illustrate how social assets, by enabling lower cost borrowing and flexible repayments, acted as a *form of insurance* against illness costs or other financial stress, and enabled households to sustain basic consumption levels, or at least mitigate their decline. Social assets were

also a cheap *source of investment funds* for improving households, which released other resources to deal with consumption and health care costs.

9.6.2 Social assets as a form of insurance: implications for borrowing and consumption

This section only covers social assets as a form of insurance for stable and declined households, because improved households rarely needed to mobilise social assets to cope with financial stress. They had higher and more secure incomes and more financial stores. In fact for improved households, the most important role of social assets was to provide cheap credit for investment purposes.

Stable households

Social assets enabled low cost borrowing and sustained consumption, playing an important insurance role for this group. Social assets provided insurance against lost income, either due to illness (Nimal [Box 9.3]) or other factors (Amali [Box 9.3]), and insurance against the financial costs of illness (Nishanthi [Box 9.4] and Raja), although they covered only a small proportion of these costs and were not as important as the public health care system in protecting them against high financial costs of illness.

**Case study box 9.3 : Social assets as insurance against lost income:
Nimal and Amali**

Nimal's strong social assets could not prevent long term livelihood decline due to the wage costs of Nimal's serious illness (Chapter 6), but:

- family gifts sustained adequate food consumption levels;
- friends' blood donations and gifts of transport protected them from high financial costs of regular treatment (public financing was also critical protection [Chapter 7]);
- family financed most of the financial costs of illness associated with his knee injury in months 4–5 (see Box 5.6; Table 5.17).

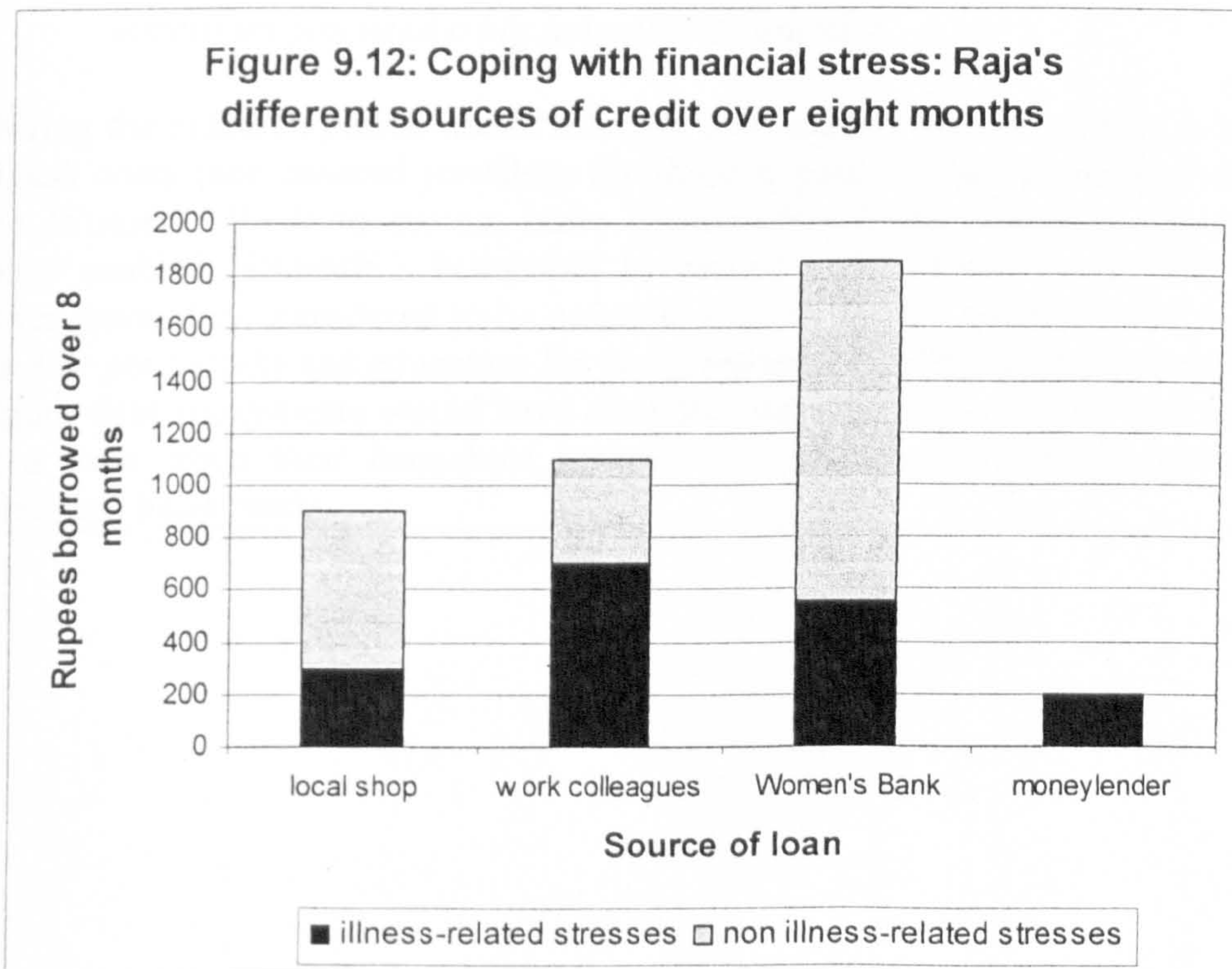
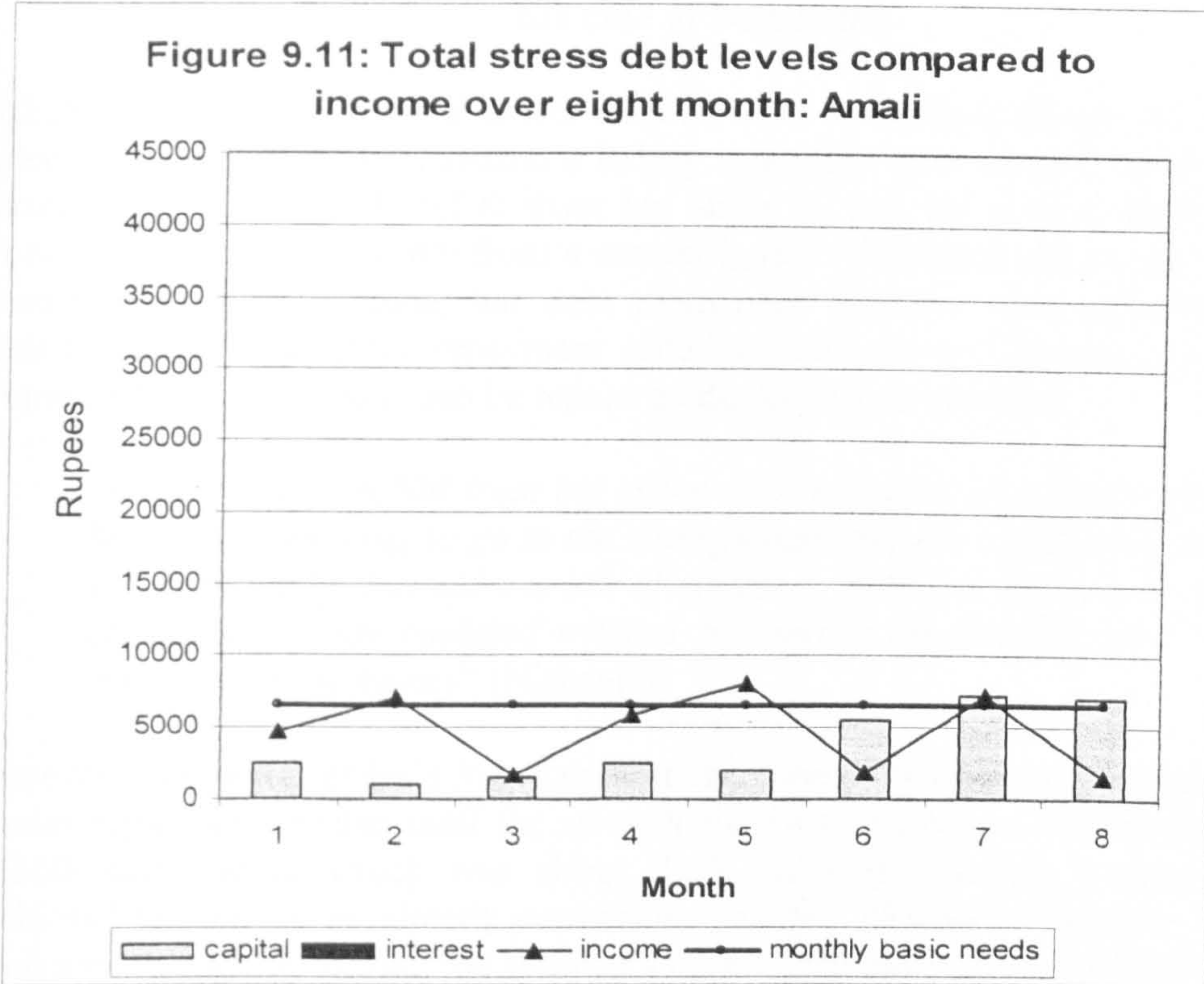
Amali's family received substantial gifts of food and money in 4 out of 8 months, which enabled them to sustain basic food consumption levels without borrowing, and to spend on other items they considered to be essential:

- health care, especially three visits to the private family doctor for the baby and two visits for her son;
- education (school bags and books, monthly tuition fees for their son);
- clothes (for the baby, and a lot of new clothes at New Year);
- debt repayments to friends in the area.

“We are very short of money but we can manage because of the food from my parents. They just sent a sack of rice that will last three months, spices, milk powder, chilies and vegetables and how many coconuts (pointing to a large sack)! They have also given me some money” (Amali).

When they did need to borrow, usually for daily necessities or baby clothes, they could do so from friends and the husband's work colleagues at no interest and with no strict repayment schedules. Consequently although debt levels increased over the eight months, repayment burdens were low and debts remained low relative to income (see Figures 9.9 and 9.10).

Figure 9.11 illustrates the impact that strong social assets had on the household's debt situation over the 8 months. It shows debts levels accumulated gradually, but were not accumulating interest, and remained low relative to monthly income levels except in the last 3 months. They did not impose a significant burden on the household monthly budget, however, because they did not have to be repaid in the short run. This meant debt repayments did not crowd out spending on food, health or education at a time when their household income was very irregular and often fell below minimum basic needs (Figure 9.11).



**Case study box 9.4: Social assets as insurance against the financial costs of illness:
the case of Nishanthi**

Nishanthi's household's social assets enabled them to borrow cheaply to cover the high illness costs linked to her husband's kidney operation two months before the research started. She borrowed Rs.6,500 from her sister to pay for a puja, Rs.4,000 from the Women's Bank and Rs.3,000 from a money lender. This debt amounted to about three times their monthly income, but debt repayment burdens were reduced because her sister's loan had no strict repayment schedule and did not accumulate interest. The Women's Bank loan could also be repaid gradually at low interest:

"I borrowed Rs.6,500 from my sister who has a lot of savings and it was a big help. I was thinking to go to the moneylender but she came to my house and said she would help. I could not ask of course... With her help I was able to do the bhodipuja for my husband without borrowing on interest, and I can pay her when I have the money" (Nishanthi)

However, the moneylender's loan taken at the time of her husband's illness imposed a heavier repayment burden until the seventh month of research. Interest payments were Rs.360 each month which was about 7.5% of their monthly income and a high additional burden on an already constrained budget. Nishanthi therefore regretted not being able to take more from the Women's Bank at the time of her husband's illness:

"This is a problem with the Society and a reason why women leave...you can only take small loans for small things or emergencies. We cannot complain but sometimes you need a big amount" (Nishanthi).

During the research period itself Nishanthi's household did not need to borrow to cover illness costs (she pawned jewellery for these costs), but borrowed from her sister and the Women's Bank to sustain basic consumption levels. Overall, cheap and flexible loans enabled Nishanthi's household to sustain consumption levels, and spending on other items they considered to be essential such as regular treatment for diabetes (about Rs.300 per month) and education for her grandson (Rs.550). Without these social assets, higher debt repayments would have crowded out spending on food, health or education at a time when their household income was irregular and barely enough to cover minimum basic needs.

**Case study box 9.5 : Social assets as insurance:
the case of Raja**

As noted in Box 9.2, social resources made Raja's household robust in the face of illness costs. The relative importance of different sources of credit to cover illness- and non-illness-related stresses is shown in Figure 9.12, which highlights the importance of the Women's Bank and work colleagues to Raja's cost management strategies. These sources enabled cheap credit to finance events such as a visit to a private doctor or a local festival (Dipavali), and also covered lost wages due to illness or lack of work.

Despite the small scale of these loans relative to monthly income, they were important protection against daily shocks and allowed borrowing without interest. Consequently debt levels did not accumulate over 8 months. Their income was above the minimum basic needs poverty line so they had surplus income to pay off these small loans rapidly. By the end of the research stress debt levels were very low relative to income (Figure 9.10):

"We have managed our debts... These days I have taken several loans from the Society to pay for food or medicine which was good – the interest is only 1% and I can repay easily" (Raja's wife).

For Raja's household this meant debt repayments did not crowd out spending on other essential items such as food and health care, and low repayment schedules even released resources for saving which were realised in month 8 when they collected a large *settu* payment that boosted their income (see Figure 6.6, Chapter 6).

Declined households

Lack of social assets placed limits on low cost borrowing for these households, and prevented them from sustaining consumption when faced with financial stress. Compared to stable households they had:

- weaker insurance against financial shocks such as the financial costs of illness;
- weaker insurance against lost income, either due to illness or other factors (e.g. Jayasinghe [Box 9.2]; Valli [Box 9.6]).

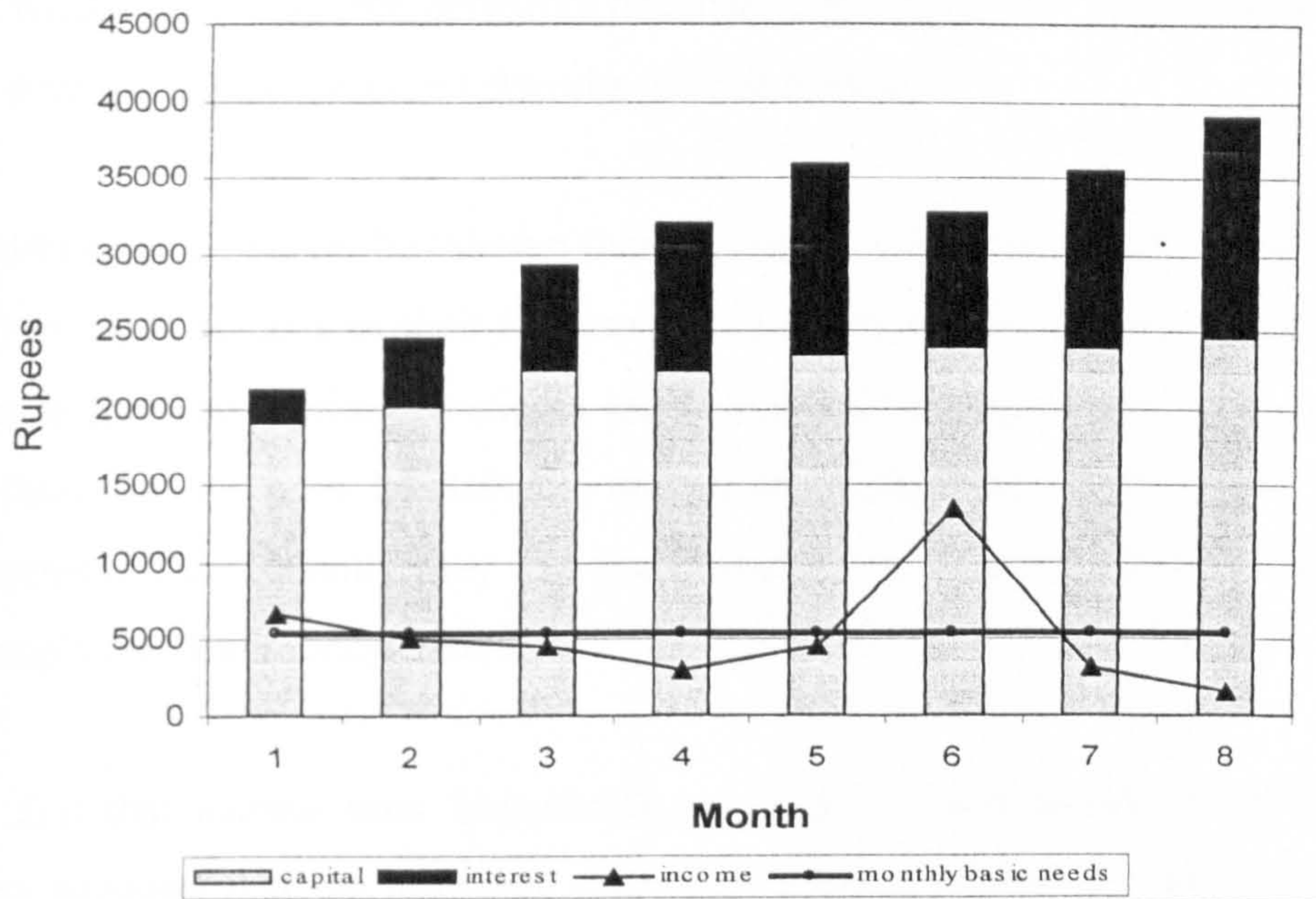
Due to a lack of social assets these households were forced to cut food consumption and delay payment of bills over the eight months (see also Chapter 6).

**Case study box 9.6 : Lack of social assets means no insurance:
the case of Valli**

Valli's household's lack of social assets forced them to take a large loan (Rs.15,000) at high interest just before research started (15% per month), to cover legal costs for two cases affecting the family (husband selling liquor illegally, son arrested for a lack of ID card and then charged with selling heroin; see Box 6.3). The household's income was often below that needed to cover basic minimum needs (Figure 9.13), and they had no cash to pay the monthly interest charge on the loan (Rs.2,250), which was about 50% of their income. Consequently the debt accumulated rapidly over 8 months to levels well above monthly income (Figure 9.13; see also Figure 9.10). As a guarantee for the loan Valli's husband gave the lawyer a letter from the NHDA stating that the land belonged to them (although this was not an official deed).

Because the household had no other social assets to help pay off the debt, by the end of research both Valli and her husband were extremely concerned and upset about the prospect of losing the land and their house to the lawyer and "*living on the street*".

Figure 9.13: Debt accumulation: stress debt levels compared to income over eight months: Valli



9.7 Summary and conclusion

Using qualitative and quantitative data, this chapter has shown that social assets were an important asset that enabled households to cope with illness costs. For example a relationship identified was that households with moderate or high illness cost burdens and weak social resource networks declined; and those with moderate or high burdens and stronger social resource networks did not decline.

In addition, the chapter has shown that declined households had the weakest social asset endowments: because of their low income (inability to give money or reciprocate gifts); because the 'social price' or stigma associated with asking for help was possibly greater for these income-poor households; and often because they had a poor reputation for repayment. Consequently they had fewer sources of cheap credit and had to rely more on employers and moneylenders.

The fact that income poor households are likely to have weaker social (and material) assets suggests that the insurance role of free public health care services is particularly critical for this group. However, because the public health system fails to protect people from all financial costs or the wage costs associated with illness (Chapter 8), income-poor households still require additional assets to act as insurance or protection against shocks. Chapter 7 showed that savings or *seetu* and jewellery were important material assets for households to manage illness costs; and this chapter has shown that access to cheap credit was important. Without these institutions or assets, the poor often have to finance health care by risky asset strategies or relying on moneylenders. These assets are therefore areas that might be targeted by policy-makers and other agencies to increase the poor's asset portfolios and ability to pay for health care. Chapter 10 debates these policy options in more detail.

Chapter 10: Conclusions

10.1 Introduction

This chapter has four main components:

- it summarises the research findings on ATP (section 10.2);
- it demonstrates that the knowledge generated by the thesis contributes to conceptual understanding of ATP (section 10.3);
- and that this knowledge is relevant to policy, since it identifies factors that influence ATP that policy-makers and development agencies might support (section 10.4);
- it identifies areas for further research (section 10.5).

To inform the review of what the thesis has achieved, and its contribution to concepts and policy-relevant ideas, this section briefly re-states what the thesis intended to do.

The overriding rationale for the research was that conceptual and empirical understanding about ATP for health care was poorly developed, but is a critical policy issue in developing countries because of changes in health system financing and delivery that are likely to impose higher illness cost burdens on poor households. This policy background drove the research objectives set out in Chapter 1 (Box 1.2). The summary of findings in the next section, organised around the conceptual framework, shows that concern for ATP is justified, and that the research objectives have been met.

However, although objectives 5 and 6, which aim to develop conceptual understanding of ATP and inform policy debates, have been addressed throughout the thesis, they have not been directly considered in earlier chapters. This chapter therefore aims to draw the research findings together to address these last two objectives and complete the thesis. It synthesises the research findings on the variables that influenced ATP for health care:

- to show that conceptual understanding of ATP has been developed (Objective 5) (section 10.3);
- to inform policy debates, and identify factors that make households robust that development agencies might support (objective 6) (section 10.4).

The final section sets out a future research agenda, based on the frameworks and questions raised by this thesis that are the next steps for research.

10.2 Summary of findings

10.2.1 Overall finding: concern about ability to pay is justified

The overall findings of the research justify concern that ATP for health care is a problem for poor households. The data show that three case study households had their livelihoods undermined permanently by illness. In addition, six other case study households suffered illness costs that placed budgets under temporary financial stress or partially undermined livelihoods with respect to wage losses, asset depletion and higher debt levels. Overall, the livelihoods of 14 out of the 16 case study households were dependent on low and/or insecure income flows that could potentially be easily undermined by the costs of illness. These findings are briefly examined in a little more detail by household group.

Declined households (n=4): All of these households' livelihoods had been undermined by illness costs. Chapter 6 (Table 6.1) showed that Jayasinghe's and Sumithra's livelihoods had been permanently undermined by illness before the research started, through permanent inability to work, asset depletion or large debt burdens, that meant these households' incomes could no longer meet minimum basic needs. Illness had also been a factor in the permanent decline of a third household in this group, Valli (see Box 6.3).

Over the research period a fourth household (Selvaraja) was partially undermined by the frequent illness suffered by Selvaraja's husband and aging mother. The husband and mother used private providers to avoid long waiting times and wage costs, and this forced the household to borrow and to pawn its last jewellery, undermining its asset base and contributing to livelihood decline and increased vulnerability over eight months.

All four households in the declined group were on low and/or insecure income and were permanently vulnerable to illness costs. Even minor costs of illness were beyond the scope of these households' daily and monthly budgets, and inevitably required a cost prevention strategy, but more usually a cost management strategy that led to indebtedness or asset depletion.

Stable households (n=7): Three households' livelihoods in this group had been permanently or partially undermined by illness costs. Nimal's household's livelihood had been permanently undermined by illness costs before the research started, through

permanent inability to work and asset depletion. Two other households were partially undermined as a result of illness costs over the eight month research period (Geetha and Nishanthi). Geetha experienced two serious illnesses (diabetes and a hysterectomy) that required hospital admission, prevented her from working, and contributed to the depletion of her savings (see Box 6.4; Box 7.1). Nishanthi also used a lot of financial assets (pawned jewellery) to smooth basic consumption levels, following a temporary drop in income due to her husband's kidney operation (Box 7.1).

A fourth household in this stable group (Raja) experienced intermittent financial stresses due to illness. Two other households in the group (Amali, Renuka) had not been placed under financial stress due to illness costs over the eight month research period, but were vulnerable to any serious illness that could incapacitate a worker because they relied on one breadwinner who brought in a daily wage. ATP for health care was less of a concern for one household in this group, Rani, because her husband had a secure and relatively well-paid government job.

Improved households (n=5): None of these households had been undermined by illness costs over the eight month research period, but one experienced financial stress due to high illness cost burdens (Pushpa). Despite their higher incomes, four of these households were vulnerable to wage losses arising from serious illness because most of their income came from daily work. For example Pushpa's household experienced financial stress and was forced to pawn jewellery in month 8 due to incapacitating illness (see Figure 7.8). ATP for health care was less of a concern for one household in this group, Dilani, because her husband and eldest son had secure and relatively well-paid jobs.

Thus for at least eight out of 16 case study households, illness had permanently undermined livelihoods, partially undermined them, or placed budgets under temporary financial stress. These households were picked to represent, analytically, other poor households with similar characteristics in urban Colombo (Chapter 3, section 3.2). The overall conclusion from the research findings is, therefore, that policy-makers should be concerned about ATP, even in the context of free health care services, because a range of household types in Colombo have the potential to fall into a vicious circle of illness-induced impoverishment.

However, the thesis has also highlighted the assets that households do possess, and from this more appreciative perspective it has demonstrated that even the most vulnerable households, such as Nimal or Selvaraja, have assets that increase robustness. These assets are the foundations on which government and other agencies can build to reduce vulnerability and increase ATP.

10.2.2 Summary of findings in relation to the conceptual framework

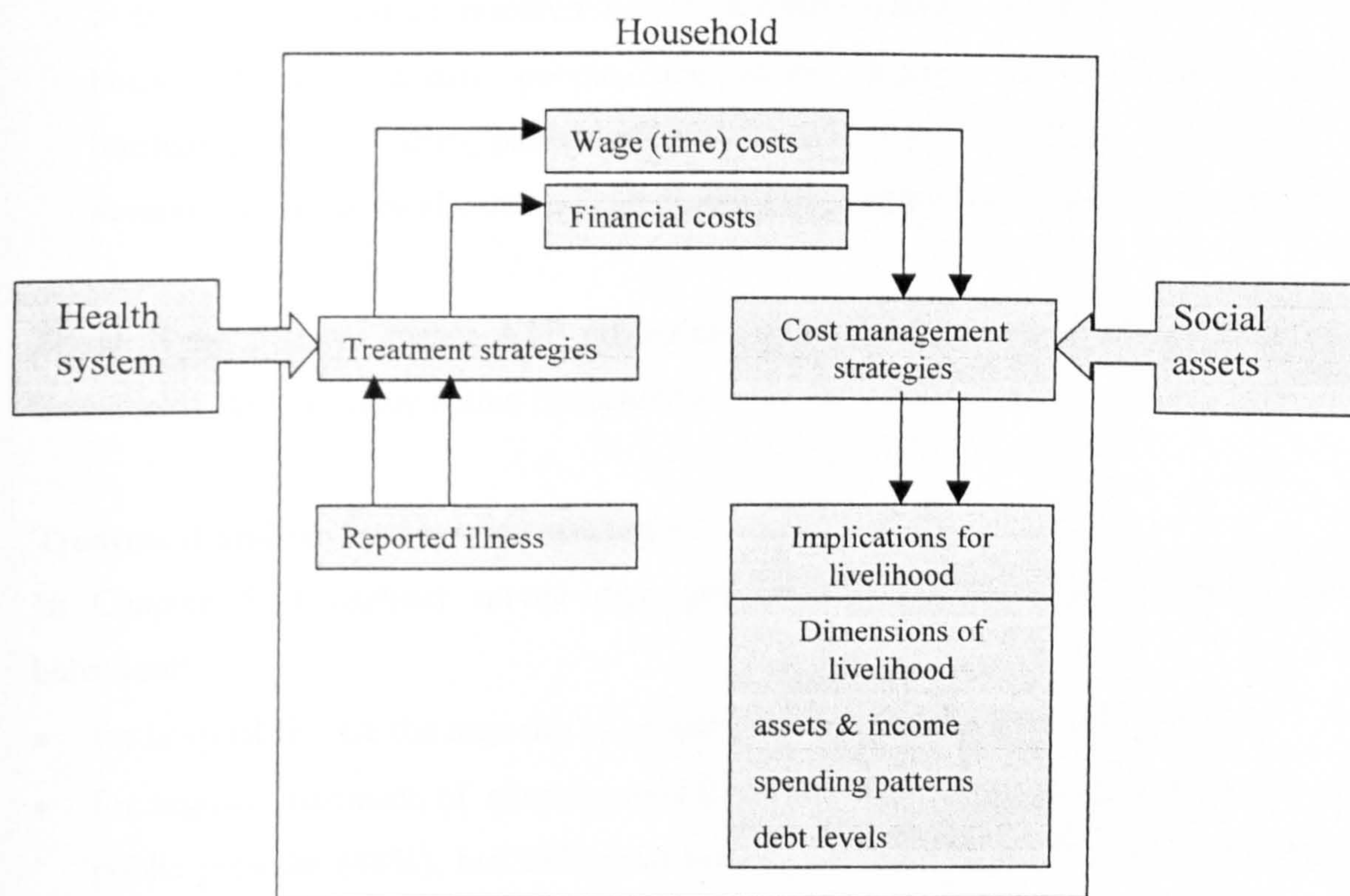
The main findings of the thesis are summarised in more detail below to show that the research objectives have been met (Box 1.2). The findings are organised around the conceptual framework (Figure 1.2), which is briefly repeated here for the convenience of the reader (Figure 10.1). The summary starts with dimensions of household livelihood, then reported illness and moves round the diagram clockwise to treatment strategies, illness costs and how the health system influences these costs, cost management strategies, and finally the implications of all these factors for livelihoods.

Livelihoods and assets in the Sri Lankan urban context

Chapter 4 described the *livelihood contexts, assets and strategies* in the two communities that influenced household asset portfolios and cost burdens and made them vulnerable to illness costs:

- 67% of households in the questionnaire survey relied on poorly paid and insecure work as a main source of income;
- limited financial and social assets, with respect to access to cheap credit or savings institutions, meant many people resorted to moneylenders or pawned jewellery to cope with financial stress;
- a widespread drug problem in the two areas, especially among males, which reduced the income available to households for other basic needs and hindered saving or investment.

Figure 10.1: Main variables in conceptual framework



Reported illness

The main illness patterns relevant to ATP, summarised in Chapter 5, were:

- illness was not spread evenly across households in the questionnaire survey (n=423);
- illness was not spread evenly across case study households, nor was it spread evenly over the eight month research period. Chronic illness disproportionately affected households with elderly people, and acute illness disproportionately affected households with children, particularly children under 5 years of age. Households with several children were also more likely to have to manage concurrent illness episodes.

These illness patterns meant ATP difficulties were likely to be spread unevenly across households, and unevenly within households.

Treatment and cost prevention strategies

In Chapter 5, household survey data provided an overview of treatment seeking behaviour:

- for hospital IP care the majority of people (95%) used public tertiary hospitals;
- for regular treatment of chronic conditions the most common action was to use a public provider (48%), but 28% used private providers and 14% a mix of public and private providers;
- for acute illness the most common first responses were to self treat (58%) or seek treatment from a private doctor or pharmacy (22%).

Case study household treatment seeking behaviour, summarised in Chapter 8, followed similar patterns. Both the survey and the case study data also showed that:

- when an illness was perceived to be serious, *lack of cash was not a significant factor deterring treatment*. This was because public health services are free at the point of delivery, and because households preferred to obtain cash through cost management strategies (borrowing, pawning jewellery), rather than prevent costs by not seeking care.

The priority given to obtaining treatment despite cash shortages, for example through borrowing or pawning jewellery, indicated a willingness to pay (WTP) that was likely to have financial consequences for households, with respect to increased debt and asset depletion.

Illness costs and the role of the health system

Chapter 5 presented a broad profile of illness costs and cost burdens in the two areas (addressing objective 1), and Chapter 8 analysed how the health system influenced these costs (addressing objective 4):

- the distribution of illness cost burdens was highly uneven across households: 65% of households that sought care faced a total cost burden of 5% or less; but a large minority (19%) faced a total illness cost burden of over 10%;
- these data indicate that free public health care provision protected the majority of households from high illness cost burdens, but that a significant minority are not fully protected by the public system;
- extended case study household data showed cost burdens were uneven over time, which makes these burdens harder to manage;
- public tertiary hospitals protected all types of household against the potentially catastrophic financial costs of inpatient treatment for serious illness;
- by reducing illness costs, free public health services enabled households to access care without adopting risky cost management strategies. This protected material assets and minimised debt levels due to illness, and made households more robust against other shocks. This protection was particularly important for households that experienced frequent acute illness among children, chronic illness requiring regular treatment, or serious illness requiring hospital admission (see section 10.4.1 below).

Cost management strategies

Health expenditures or wages losses were a cause of financial stress among all types of case study household, particularly those classified as declined or stable (Chapter 7). The cost management strategies adopted by households in the questionnaire survey were described in Chapter 5, and case study household strategies were described throughout Chapters 6–9 (addressing objective 2). These data showed that the most frequently adopted strategies were to:

- get credit from a shop;
- delay payments on bills;
- obtain a gift from a relative;
- pawn jewellery;
- borrow money: from a relative, a friend or neighbour, employer or moneylender;
- cut food consumption.

Chapters 6–9 showed that these strategies, based largely on material (financial) and social assets, were critical factors influencing ability to cope with illness costs that went beyond income, and thus key factors distinguishing households that remained stable from those that declined (addressing objective 4):

- declined and income-poor households had weaker financial assets and social assets;
- stable households had more financial assets and/or social assets and mobilised these over the eight months to manage shocks and smooth consumption;
- in contrast improved households rarely had to mobilise these assets to manage financial stress, and instead used these assets to borrow for investment purposes.

Implications for livelihoods

Chapter 6 reviewed the implications of illness costs and coping strategies for case study household livelihoods over eight months (addressing objective 3). Table 6.5 began this analysis, and the patterns in the Table suggested that the impact of illness cost burdens on household livelihoods was strongly mediated by: (a) the household's vulnerability or ability to cope, defined in terms of assets, and; (b) the scale of the illness cost burden incurred. The following broad relationships were observed:

- highly vulnerable households with moderate or high illness cost burdens declined;
- less vulnerable households with moderate or high cost burdens remained stable (although some were close to decline);
- all households with relatively low illness cost burdens remained stable or improved;
- robust households with moderate or high illness cost burdens remained stable or improved, despite these burdens.

The summary of findings set out above shows that the research objectives, particularly objectives 1–4, have been met. This chapter aims to draw the research findings together to address objectives 5 and 6 and complete the thesis. It synthesises the research findings on the variables that influenced ATP for health care to show that conceptual understanding of ATP has been developed (Objective 5) (section 10.3), and to identify factors that make households robust that development agencies might support (objective 6) (section 10.4).

10.3 Development of concepts and methods for ability to pay analysis

10.3.1 Ability to pay: a question of complex livelihoods

The thesis has demonstrated that a livelihoods approach informs conceptual understanding of ATP, because it identifies the different assets that households can mobilise to pay for care (e.g. human, material, social, organisational). The thesis also identified a range of factors within each of these categories that are important to ATP, and some examples from the urban context in Sri Lanka are listed in Table 10.1

Table 10.1: Livelihood assets and ability to pay

Asset	Factors within each category relevant to ATP
Human capital, labour and income	<ul style="list-style-type: none"> • health and ability to work • types of work • number of workers per household and income streams • security of work
Financial (material) assets	<ul style="list-style-type: none"> • income levels and extent of income fluctuation • income available for savings, or participation in other financial institutions such as revolving savings groups or credit societies • jewellery and other material assets that can be quickly exchanged for money
Social assets	<ul style="list-style-type: none"> • <i>income</i>: influenced ability to participate in and strengthen reciprocal social networks; • <i>dignity and fear of obligations</i>: influenced decisions on whether to ask for help; • <i>reputation/status</i>: influenced a person's ability to secure cheap credit, for example the respect a person commands (e.g. whether they are considered a gossip; their education), their reputation for making payments, or their reputation for being 'careful with money' and 'deserving'; • <i>the number and types of contact, and the resources these contacts have to offer</i>: influenced access to gifts or cheap credit.
Financial management as a resource	<ul style="list-style-type: none"> • <i>control over income</i>: women's autonomy over spending, for example in relation to male spending priorities; • <i>management of income</i>: allocation of resources to different types of spending and saving.

The thesis has, in particular, demonstrated the important contribution of social assets to household robustness and ATP for health care (Chapter 9). For example social assets prevented the total collapse of Nimal's household's livelihood, and for other households prevented more serious processes of asset depletion and indebtedness (Amali, Nishanti, Raja). In contrast, weak social assets contributed to vulnerability and livelihood decline, for example Valli had limited sources of cheap credit and became heavily indebted.

By integrating analysis of illness and its costs with livelihood frameworks, the thesis contributes to current international debates about the links between ill-health and processes of impoverishment (DFID 1999; Haines et al. 2000; WHO 1999a, 1999b; World Bank 2000). Firstly, at the most basic level of analysis it highlights the main mechanisms through which illness causes impoverishment, for example how wage losses lead to indebtedness and asset depletion. It also reinforces the concern among donors that illness does contribute to impoverishment, and that this problem may be widespread even in contexts where health services are free.

Secondly, a livelihoods framework shows that the mechanisms or 'pathways' that link illness with impoverishment are multiple and complex. For example a woman's ability to manage illness costs and avoid asset depletion is dependent on aspects of the household's financial management, particularly male spending priorities; and this aspect of financial management also affects her ability to save and accumulate material assets, and her ability to develop social assets. These links between assets indicate there are synergies to be gained from investing in them.

The livelihoods perspective adopted in this thesis can also inform broader social policy debates concerning developing countries that are currently taking place among analysts and donors (de Haan 2000; Kabeer and Cook 2000). For example, analysts advocate a shift from sectoral approaches in social policy, that were transferred from industrialised countries to developing countries, towards new structures of social provision that focus more on the complexity of people's livelihoods in the South:

"Unlike the urbanised and industrialised economies of the North, where the majority of the population depend on wage labour as their primary source of income, most people in poorer southern countries rely on complex livelihoods which straddle several sectors (urban-rural, formal-informal...), mobilise different resources (material, social and human), and take varied forms (wage employment, self-employment, subsistence production)...It is unlikely that the long-term security of livelihoods in these contexts is best achieved through a focus on... sectoral interventions" (Kabeer and Cook 2000: 7).

Sectoral approaches that compartmentalise people's needs may therefore miss valuable opportunities to build and protect a variety of assets at household level that contribute to the 'household production of health' (Berman et al. 1994). By demonstrating that people's ATP for health care is influenced by multiple resources, this thesis has produced evidence to suggest that health policy could be more holistic and take account of the

diverse resources that households draw upon to produce health (de Haan 2000). For example health financing debates could be broadened to consider ways of strengthening the financial and social assets at people's disposal.

10.3.2 Ability to pay: key variables for analysis

As well as locating ATP within a livelihood framework, conceptual understanding of ATP has also been developed because the thesis has identified specific variables and relationships to be analysed (as set out in the conceptual framework), and developed knowledge about each of these variables. These are summarised in Box 10.1.

Box 10.1: Variables that are central to the concept of ability to pay

1. *Income patterns over an extended period*: and whether income levels are adequate to meet a defined package of daily and non-daily basic needs. The definition of basic needs should be grounded in local contexts and reflect the priorities of the people being studied, not what professionals think their priorities ought to be.
2. *The additional burden that financial illness costs impose on the household budget*: and whether people have enough income to meet health care costs after other minimum basic needs have been met. Data collection and analysis should also focus on the combined cost burden that other occasional but expensive necessities impose on budgets.
3. *The way income is managed*: which influences the amount of money available to cover illness costs, focusing on the control of income within the household, and people's spending priorities and patterns.
4. *Income fluctuations over time*: how do income losses, sometimes resulting from illness itself, affect the three variables listed above? For example, following income losses due to illness is the household budget adequate to meet minimum basic needs?
5. *Management of income deficits over time*: if income is inadequate to meet minimum basic needs (i.e. an income deficit). What range of resources are mobilised to manage these deficits, and what are the consequences of these strategies for household livelihoods and individuals within the household (see point 6 below)?
- 6 *The implications of illness cost burdens, related income deficits and cost management strategies*: for dimensions of livelihood status, focusing on different assets, expenditure patterns and debt levels, and evaluating whether these variables show livelihood decline, stability or improvement.

The importance of the first four of these variables for ATP analysis was demonstrated in Chapter 7, which presented findings on income patterns relative to basic needs over eight months, and whether household budgets were adequate to cover financial illness costs.

The research findings with respect to these four variables were summarised in Tables 7.6 and 7.9 in Chapter 7, and showed that:

- *Declined households'* monthly incomes were too low to meet minimum basic needs (a problem exacerbated by male spending on narcotics), minor financial illness costs were beyond routine budgets, and an additional expense such as health care inevitably required a cost prevention or cost management strategy. Households preferred to obtain cash through cost management strategies such as borrowing and pawning, which led to indebtedness and asset depletion.
- *Stable households'* income levels were adequate to meet minimum basic needs and basic treatment costs when workers could work, but wage losses, male spending on narcotics, and the combined burden of lumpy expenses meant households often had to mobilise assets to pay for these expenses. Although some households in this group depleted assets or increased debt levels, in general they had more assets that they could mobilise to maintain livelihoods.
- *Improved households'* income levels were adequate to cover basic needs and relatively high illness costs, but serious illness that incapacitated workers could cause financial stress and force cost management strategies. Greater asset endowments among this group meant they could manage costs without serious consequences.

The importance of the fifth variable or process listed in Box 10.1 – how households manage illness costs and income deficits using different assets – was demonstrated in Chapters 7 and 9. In addition, the links and synergies between different assets are demonstrated when the findings of Chapters 7, 8 and 9 are drawn together. For example, declined households that lacked material assets also had weak social assets, and weak social assets reduced access to material assets (e.g. gifts, cheap loans). In turn, weak social and material assets were linked to poor financial management: male spending on narcotics, for example, constrained women's ability to save or invest (e.g. Valli, Renuka), and their ability to obtain credit or join revolving savings groups. These links suggest there are synergies between assets that policy-makers can harness to improve robustness against shocks such as illness (see section 10.4).

The variables listed in Box 10.1 inform the conclusion that analysis of ATP is conceptually different from analysis of WTP. The latter focuses on what people spend or what people say they are willing to spend. In contrast ATP studies require more detailed understanding of household economic variables over time. This conceptual difference

between WTP and ATP requires more attention in policy debates on health financing because most studies that show people are willing to pay make a leap of faith and assume they are able to pay. The distinction between the two concepts can be illustrated by applying some of the basic research findings to the abstract ATP graph that was first shown in Chapter 1 (Figure 1.1).

Figure 10.2 represents the budget and ATP situation of a 'typical' income-poor and vulnerable household, derived from the characteristics of the declined households in this study. It is a household with two adults (husband and wife) and two children over 10 years old. Using the per capita daily minimum basic needs poverty line of Rs.45 (see Chapter 3), the household requires Rs.180 per day to meet its daily minimum needs. The husband is the only worker and earns Rs.200 per day from manual labour, which places his household close to the local poverty line. The husband gives his wife Rs.150 per day to purchase all the daily needs such as food and fuel.

The household budget line (SS) represents any combination of non-health care daily necessities, and health care services, that the woman can purchase with the money the husband gives her at the end of each working day. At point a the woman has Rs.150 available for daily needs, which even without treatment costs is inadequate to meet daily minimum needs (Y1) worth Rs.180. This represents a daily income deficit of Rs.30.

The woman then needs to spend Rs.100 to take a child to a private doctor. She is willing to pay because she is in a hurry and wants to get to a doctor quickly. The household moves along the budget line to a1, leaving only Rs.50 for the woman to cover daily food and fuel needs that cost Rs.180. In other words willingness to pay for health care leaves an income deficit of Rs.130: *in this case WTP cannot be said to represent ATP because the payment undermines the household's livelihood situation with respect to its ability to meet other basic needs.*

Cost management strategies are inevitable for this type of household if illness costs of Rs.100 are incurred. Even if health care expenses were lower, for example Rs.50, the woman would only have Rs.100 to pay for daily food and fuel needs that cost Rs.180.

This analysis is likely to underestimate the ATP difficulties faced by income-poor households in Colombo, because it *underestimates the financial illness costs of using a private provider*:

- A visit to a private doctor usually cost more than Rs.100 when transport costs were included (see for example the case of Selvaraja in Chapter 8).
- If the household experienced two illness episodes concurrently the financial costs of illness were likely to be over Rs.200 if private providers were used.

Even if the woman sought free treatment at a public provider, transport and food expenses were often over Rs.30, or additional drugs had to be purchased privately (see for example Tables 5.17 and 5.18 in Chapter 5, or the case of Selvaraja in Chapter 8). Thus the woman would still have to manage a large income deficit on that day.

In addition, Figure 10.2 underestimates the ATP difficulties faced by income-poor households in Colombo because so far *wage losses have not been considered*. The budget line SS assumes the woman has Rs.150 available, but Chapter 4 showed most households relied on an insecure income source, and Chapter 7 showed wage losses were a key cause of financial stress. In the example above, if the breadwinner fell ill and could not work, the household would move to point b on the graph for that day. It would need to find Rs.180 for non-health care daily needs, plus Rs.100 for health care needs. The double illness cost burden of lost wages and additional expenses mean the household faces an income deficit of Rs.280 to meet minimum needs. If the husband was too ill to work for two consecutive days, an income deficit of Rs.180 would have to be managed on the second day.

Even households with income levels above the poverty line were vulnerable to ATP difficulties. Figure 10.3 represents a household with the same characteristics as the previous example, except that it earns Rs.350 per day from two income streams, which places it well above the local poverty line. Most stable and some improved households from the research were in this situation. The woman is given Rs.300 per day to manage the family's daily food and fuel needs, shown by the budget line SS. At point a she has Rs.300 available for daily needs, which without treatment costs is adequate to meet daily minimum needs (Y1) worth Rs.180. This represents an income surplus of Rs.120.

Figure 10.2: Typical ability to pay situation for households in Colombo with an income level close to the poverty line

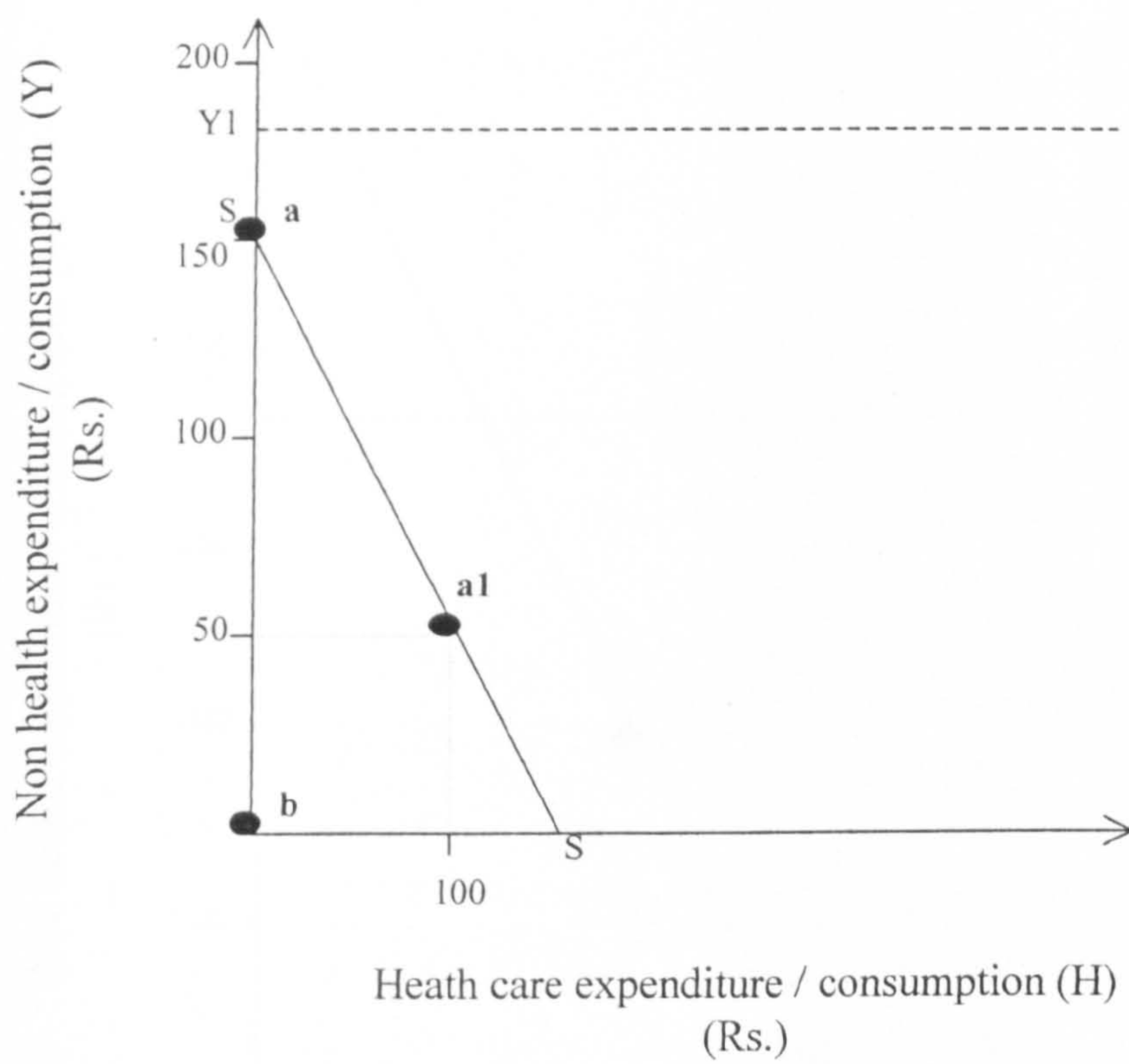
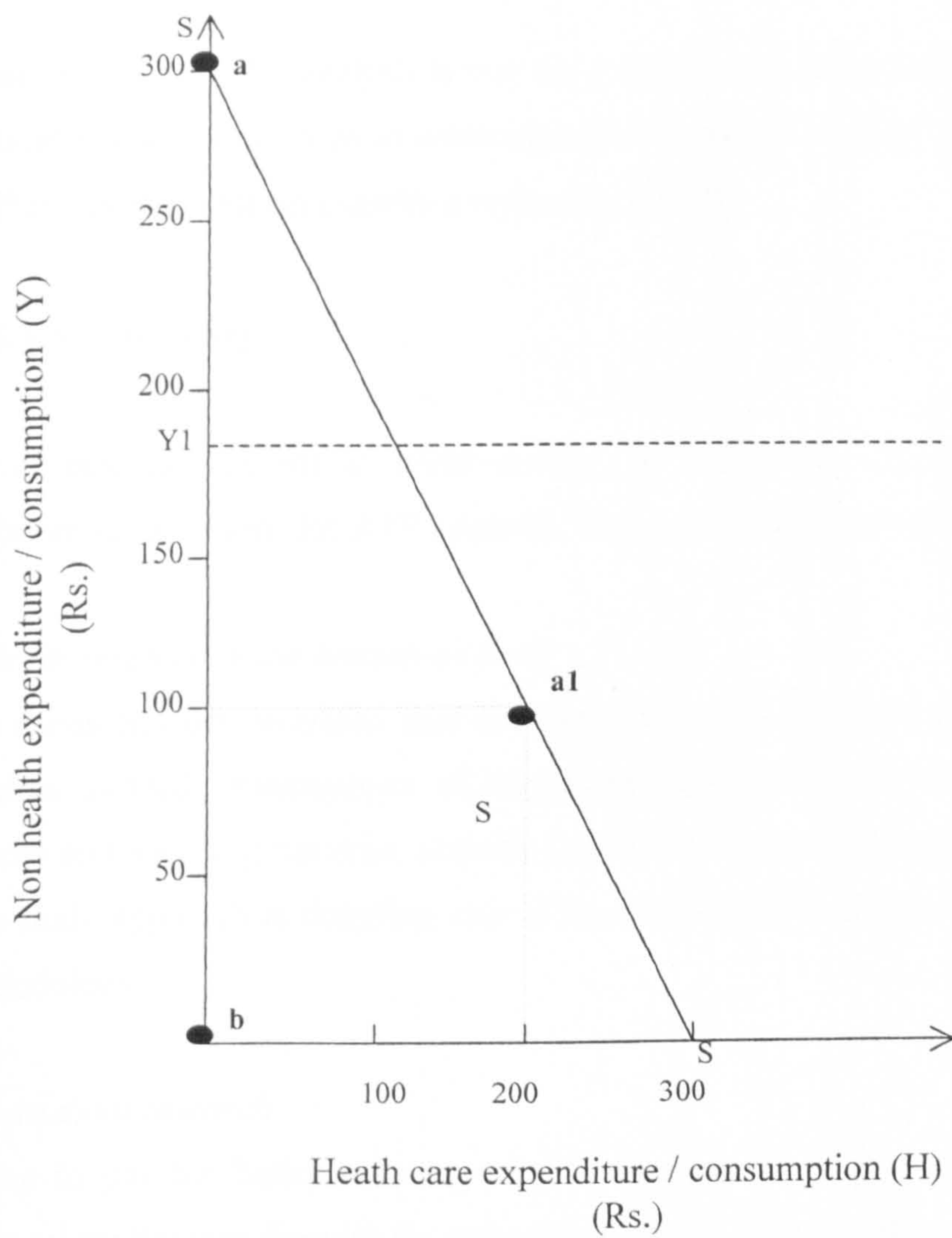


Figure 10.3: Typical ability to pay situation for households in Colombo with an income level above the poverty line



If the woman needed to spend Rs.100 to take a child to a private doctor, she would still have Rs.200 remaining and would not suffer the same income deficit that was experienced by the income-poor household. However, higher treatment costs of Rs.200 would move the household to a1, leaving only Rs.100 to cover daily food and fuel needs that cost Rs.180. In this situation willingness to pay for health care leaves an income deficit of Rs.130, undermining the household's ability to meet other basic needs. Wage losses would exacerbate this situation.

A conclusion from this analysis is that for a range of household types in Colombo, *illness costs do not have to be high to undermine the household's ability to meet basic needs, and WTP is therefore not necessarily a reflection of ATP.*

10.3.4 Methodology

By developing conceptual understanding of ATP, the thesis has also developed methodological lessons for ATP research. These are described below.

In-depth research at the household level

The thesis has demonstrated that an approach to ATP based on household livelihoods requires in-depth investigation of household asset portfolios (including social assets), income and spending patterns, and the way assets are used to manage financial stress. A case study approach is therefore one of several important components for ATP research methodology.

Longitudinal research

Ability to pay for health care varies over time and cannot be viewed statically. Cross sectional studies may disguise the nature or extent of ATP problems, because:

- illness is not spread evenly over time (Chapter 5);
- people's work and income patterns fluctuate over time (Chapter 7);
- spending patterns vary over time, with sudden expenses incurred due for rites of passage, education or illness, which can impose cost burdens beyond budgets (Chapter 7).

Thus ATP cannot be understood through cross sectional work alone, since illness costs are lumpy and income fluctuates. Cross-sectional surveys, for example, only provide a

snap shot of illness costs, income levels and cost burdens, and are liable to ‘smooth’ out fluctuating cost burden patterns (Chapter 5).

ATP research also requires a longitudinal approach because the implications of illness costs and coping strategies for livelihoods over time require investigation. The need for both in-depth investigation and longitudinal studies suggests *an extended case study approach* should be a major part of ATP research.

Understanding context

The thesis has shown the need for an understanding of the resource contexts in which households are located, for example the nature of health services or the financial institutions available to households. ATP research must also seek to have an in-depth understanding of local context because it needs to understand local people’s priorities, particularly with respect to their spending patterns and management of their resources. This suggests ATP research should be restricted to a small number of sites where understanding of context can be developed.

Case study households also need to be located or ‘nested’ within their wider socio-economic contexts, for example to show whether their income or illness cost levels are relatively high or low compared to the rest of the community, and whether they are ‘typical’ or ‘atypical’. ATP studies therefore need to combine a case study approach with methods that can provide a socio-economic profile of the relevant ‘community’ in question, whether this is a village or a district. A household survey or rapid and participatory approaches could be used to generate this contextual data. Methods that can cover a large number of households are also a useful means of identifying case study households.

Combining qualitative and quantitative data to evaluate ATP

The thesis has shown the need for both qualitative and quantitative data to evaluate ATP for health care. For example quantitative data on expenditure patterns can be complemented by qualitative data about people’s decision-making processes and priorities that explain these patterns; or qualitative data on people’s attitudes towards trust, reciprocity and borrowing can be complemented by quantitative data on their borrowing patterns.

Innovative analysis

Questions about ATP cannot be answered through measures of central tendency alone, because these are likely to disguise ATP problems for many households. This is because illness and the cost burdens imposed by illness are neither distributed evenly among households, nor over time, especially with respect to serious or catastrophic illness which incurs high cost burdens (Chapter 5). Longitudinal case studies will pick up these variations, and requires innovative analysis and presentation of data to capture these fluctuations, and to demonstrate their implications for household livelihoods. For example graphs in Chapters 5, 7 and 9 showed income fluctuations and illness costs over time for specific households.

10.4 Building policy action on the factors that mediate ATP

The fact that ATP for health care is a potentially widespread problem for a range of household types in Colombo, despite the availability of free health care services, places demands on policy-makers and development agencies in Sri Lanka and other contexts to initiate or support measures that:

- minimise the financial costs of illness for households from a range of socio-economic groups, not just those below a given poverty line;
- protect and develop a range of assets that enable households to cope with illness.

The first point focuses attention on the health system, and the question of which financing and delivery arrangements minimise illness costs for the poor. Key features of the Sri Lankan health system relevant to this question are first examined in section 10.4.1 below. The second point shows that from a livelihoods perspective the health system is just one resource on which households can draw to cope with illness-related shocks. These assets are examined in section 10.4.2.

10.4.1 The health system**Financing and delivery configurations that protect the poor from high financial costs of illness and promote ATP**

Data presented in Chapters 5 and Chapter 8 showed that free public health care protected the majority of households from high illness cost burdens, and enabled households to access care without adopting risky coping strategies. The public health system therefore:

- protected assets and minimised debts;
- made households more resilient to other shocks;
- released resources for saving and investment purposes.

The health system was particularly important for income-poor households close to the poverty line because they suffered from multiple asset weaknesses. Firstly, in addition to their low income, households close to the poverty line usually relied on insecure income sources. Secondly, these households were more vulnerable to the consequences of weak financial management, because money spent on narcotics, for example, was at the expense of other minimum basic needs (Chapter 7, section 7.4). Thirdly, income-poor households were more likely to have weak financial assets because they had already exhausted financial stores such as jewellery, and their income was neither adequate nor reliable enough to save money, participate in RSGs (*seetu*), or redeem pawned jewellery (Chapter 7, section 7.4; Chapter 9, section 9.4.1). Consequently these households were more likely to rely heavily on borrowing to manage income deficits and smooth consumption. But a fourth dimension of deprivation was that income-poor households had the weakest social assets, which meant they lacked access to cheap credit (Chapter 9).

Given these inter-connected asset weaknesses, the public health system in Colombo was a particularly important additional asset for vulnerable households. Three broad features of financing and delivery arrangements were important.

Firstly, in Sri Lanka public health services are free at the point of delivery. The introduction of user fees in Sri Lanka has been raised as a policy option by donors such as the World Bank, but has been dismissed by successive governments as both undesirable from the point of view of equity, and politically unfeasible (Mills et al. 2001). Historically, Sri Lankan development policy has placed strong emphasis on redistribution and direct service provision, and since the 1930s public action and state responses have politically constructed health care as a basic right for all citizens. Within this historical and political context key policy actors have opposed fees or given little opportunity for policy reform (Mills et al. 2001):

- public sector trade unions, student bodies and radical left-wing groups oppose fees;
- top politicians and bureaucrats fear the electoral consequences of introducing fees and a strong political backlash that could lead to a replay of the political violence experienced in the late 1980s;

- health professionals and unions that support free government health care provision as a ‘safety net’ for the poor, and that encourage private sector provision for those willing and able to pay;
- a cross section of the public oppose fees, including middle class sections of society that still resort to public hospitals for serious illness and inpatient services.

The research identified three particularly important areas of free health care provision that protected poor households:

- free health services for children who suffered frequent and concurrent illness (Chapter 5, section 5.2; Chapter 8, section 8.4.1);
- free health services for regular treatment of chronic illness (Chapter 8, section 8.4.2);
- free hospital inpatient services, especially because serious illness requiring hospital admission is also likely to incur high wage costs (Chapter 8, section 8.4.3).

Although each of these areas of service provision offered important protection, households often benefited from the combined protection of two or three of these types of service (see the cases of Selvaraja, Nimal and Raja in Chapter 8, section 8.4).

A second feature of the public health care system that made it an important asset for households was the relatively good quality of care available in Colombo, compared to other parts of the country. Quality of care is an important influence over ATP, because it influences people’s interactions with the health system. Free treatment at public facilities will only offer financial protection if people choose to use these services and are not driven to the private sector by poor perceived quality. In Colombo, public health services do protect the poor because people are close to what are seen as the best hospitals in the country. For example the National Children’s Hospital was usually people’s first choice of provider when a child was seriously ill (see Chapter 8, sections 8.2 and 8.4.1).

In contrast outside Colombo, particularly in more remote areas of Sri Lanka, the public health system is probably less effective in protecting households from high illness cost burdens, because there is a more limited range of services, staff and drug shortages are more common, and people have to travel further to access care. These factors probably increase the costs of seeking public treatment, or are more likely to push people to the private sector. In other words the widespread ATP problems experienced in Colombo are likely to be more extensive in other parts of the country.

A third broad feature of the free public health care system that protected a wide range of household types was the universal provision of these free services. Universal provision meant that all case study household types identified by the research were protected from high financial illness costs, irrespective of whether their income levels were above or below the study's basic needs poverty line.

If fees were introduced, and free health care was targeted to a group of 'poor' households that fell below a defined poverty line, it is likely that some of the case study households would not have benefited from this free care. This is because if the government used its existing poverty line (used to target a poverty alleviation programme), all case study households would fall above it and not qualify for exemption. The existing poverty line is Rs.1500 per household per month, which is widely accepted among analysts to be out of date and far too low to meet the minimum basic needs of an average family in Sri Lanka, even in rural areas (Gunatilaka 1997).

Even if the government used this study's much higher poverty line of Rs.1354 per capita per month to target health sector exemptions in Colombo, half of the 16 case study households would have fallen above it and not qualified for an exemption. This would have caused ATP problems for these households, categorised as 'non-poor' by the poverty line, because some of them were close to the poverty line and experienced ATP difficulties because income losses often pulled them below the poverty line, or a range of other non-routine expenses had to be met which often went beyond the household budget.

Universal provision of free health care therefore offered important protection for all household types in the study, and overcame the exemption targeting problems inherent in these livelihood contexts. Obviously, an even higher income threshold for exemption would allow a wider range of household types to be exempted from payment, but it is unlikely that the government would use such a high income threshold, and the administrative difficulties of implementing an effective exemption system would remain.

The overall finding that free and universal public provision of health care services has provided important protection for the poor is relevant to and informs wider international financing debates. For example there is an emerging consensus among analysts and donors that:

- health is a key asset for the poor (DFID 1999; WHO 1999a, 1999b; World Bank 2000)
- user fees at government facilities deter utilisation by the poor, or may incur damaging cost burdens that lead to asset depletion and impoverishment (DFID 1999; Gilson et al. 1995; Haines et al. 2000; WHO 1999b; World Bank 2000);
- universal provision is the best way of protecting the poor (WHO 1999c).

Financing and delivery configurations that mean the poor are not protected

Although this thesis has shown the public health system to be an important asset for vulnerable households in Colombo, it also identified aspects of public health care provision that failed to protect case study households from high illness cost burdens (Chapter 8).

Firstly, *the public health system did not cover wage losses caused by illness*. Secondly, *the public health system did not protect households against all financial costs due to perceived quality weaknesses*. The main public sector supply-side weaknesses that pushed households to private providers for outpatient treatment were long queues and waiting times, the lack of consultation time with public sector doctors, and poor relationships or trust between government health workers and patients.

To obtain private treatment vulnerable households often needed additional cash, which in turn meant financial and social assets were important resources that households mobilised when illness struck. Health financing debates in developing countries therefore need to move beyond the boundaries of the health sector to consider a range of other household assets that might be developed to reduce ATP difficulties. These assets are discussed below.

10.4.2 Assets used to manage income deficits at times of illness

The conceptual framework used to research ATP in this thesis has demonstrated that ATP for health care is mediated by people's complex asset portfolios, and that health financing policy debates should be broadened to include these assets. Due to the aforementioned limits of the health system's protection, households require additional assets to act as 'insurance' against the costs of illness, and policies to build or support these assets are likely to benefit from the synergies that arise between them.

The research identified three main types of financial and social asset which made some households robust to financial shocks, but which other households lacked and needed:

- financial institutions that enable small amounts to be saved on a flexible basis;
- access to cheap credit;
- access to pawning facilities that enable people to redeem items by installments rather than by a lump sum.

Box 10.2 provides an example of how these assets were built and supported by a local NGO in SSP, and how these contributed to one household's robustness.

Risk sharing mechanisms, in which households contribute to a common fund that provides insurance in case of a financial shock (such as a death or illness), were notably absent from most household asset portfolios in the two study sites. Funeral societies were the only type of risk sharing mechanism identified by the research, but only 6% of adults contributed to this type of fund (Chapter 4, section 4.2.2). Thus although informal or formal risk-sharing mechanisms are debated in the international health policy literature as potential health financing mechanisms (Arhin 1995), these insurance mechanisms were not a high priority for poor households in Colombo, since the costs of expensive hospital treatment were met by government.

A higher priority for people was to be able to save and get access to cheap credit or pawning facilities. Case study household saw these as important financial institutions to cover the shocks that the state does not protect against, for example lost wages due to illness or a visit to a private doctor. Building these assets is therefore an area on which policy-makers and development agencies might focus.

The important role of development agencies in building assets

The research found that attempts to develop these assets for the poor always involved an outside agency. In Colombo, local NGOs appeared to be better placed than government for these community-based activities, for example ISDA (see Box 10.2) and the Women's Bank (see Chapter 4, Box 4.2), due to their flexibility and more community-orientated rather than 'top-down delivery' philosophy. However, there were examples of government agencies that had successfully worked with communities. For example the National Housing Development Authority (NHDA) during the 1980s trained community development workers and started women's savings and credit societies in low-income

communities. Only later, when the staff and leadership of the NHDA changed, did these groups decide they could work more effectively outside the government bureaucracy, and they formed the NGO called the Women's Bank (Albee and Gamage 1996; Russell and Vidler 1999).

Case study box 10.2 : Financial and social assets that development agencies can support: the case of Mary

Mary's household's livelihood improved over the 8 month research period (Chapter 6, Table 6.2). It had the highest income per capita of the 16 case study households (Rs.3836 per capita per month), had 3 income sources (see Appendix B), and her husband's business provided a secure daily income source. Both she and her husband managed their finances well: the husband did not drink or smoke, and they saved and invested money. Mary's household had developed and was robust because of the above factors, but also because it had three important financial or social assets:

Financial institutions that enable small amounts to be saved on a flexible basis

Mary was the leader of one of the savings and credit groups established by ISDA in SSP (ISDA was a local NGO, the Institute for Social Development Alternatives). Mary saved money with this group, and was also a member of 3 *seetu* (rotating savings) groups. The household used these savings to invest in the house, their children's school expenses, and to redeem jewellery that had been pawned for investment purposes.

Cheap credit

The ISDA group provided emergency loans of up to Rs.2000, at low interest and with flexible repayment schedules. Mary used this facility twice over the 8 months to finance 'lumpy' spending needs (education and a *seetu* payment). The importance of this financial asset for Mary was illustrated by the limitations or problems of other credit sources. Firstly, Mary was very reluctant to borrow from local friends because of the gossip this could generate, and only had one friend to whom she could go for small loans. Secondly, Mary had borrowed money from her brother to finance their son's move to work abroad, but this ended acrimoniously. Thus for large loans they often relied on her husband's business colleagues, who charged 15% interest per month. ISDA gave Mary an alternative and cheap source of credit to finance sudden expenses, without having to rely on her husband to organise the loan, and without the worry of gossip, obligations to friends and family and threats to her dignity.

Flexible pawning institutions

ISDA provided a third important facility: it redeemed jewellery that its members had pawned at private brokers, and allowed them to redeem the items by paying through installments. This made payments much less 'lumpy' and easier to manage.

With respect to savings institutions, the findings presented in Chapter 7 showed that households, including poor households, often needed to spend large sums of money on health, education or rites of passage, and that there was a need for financial institutions to enable small amounts to be saved on a flexible basis. The research findings also found

evidence to show that although people wanted to save money, they faced many constraints. Chapter 7 revealed two main barriers to saving. Firstly, income-poor households usually lacked surplus cash after daily needs had been met. Secondly, women who usually managed the daily food budget found it very difficult to save small amounts each day, because it was difficult to resist the claims made on the money by hungry or sick children, relatives in need, a drug-dependent husband or son, or the people to whom they owed money.

The research found that among savings and credit group members, NGOs were seen to be vital catalysts for the formation of their savings group, for the following reasons:

- they would not have got together and formed a group without external impetus;
- the agency fieldworkers gave them encouragement and confidence that they could save a few Rupees each day despite their poverty;
- the rules of the savings group meant only small amounts needed to be deposited each week;
- but at the same time the savings group instilled a savings regime or discipline that put pressure on them to save those few Rupees each week; without that discipline they would probably not have saved the money.

With respect to institutions that provide cheap credit, the research found that people often lacked access to cheap credit and had to go to moneylenders. NGOs had also tried to address this problem in the two study sites, because the savings groups discussed above were also set up to act as ‘banks’ from which people could borrow money at low interest, using their savings as a deposit or guarantee. The Women’s Bank and ISDA were two NGOs that had successfully established groups, which could offer emergency loans for small financial contingencies.

With respect to pawning facilities, the findings presented in Chapter 7 showed that pawning jewellery was a vital coping strategy used by households to manage financial shocks. However, income-poor households experienced great difficulties in redeeming pawned items, since this required a large lump sum of money. Thus once items were pawned they were often lost, making the household more vulnerable to future shocks. The research found one innovatory financial institution established by an NGO (ISDA), that allowed people to redeem their jewellery through installments, rather than having to pay a

lump sum (see Box 10.2). This was seen to be a precious financial asset by respondents, and its potential for development may require further exploration (see the next section).

Overall, an external agency's involvement appears to have been a necessary pre-condition for the formation of savings and credit groups in the two communities. As discussed in Chapter 4 (section 4.2.2) and Chapter 9 (section 9.4), relationships of trust and cooperation among people in the two areas were often limited to two or three friends, and gossip was a factor preventing association. This was where NGOs could play an important bridging role, bringing people together and encouraging cooperation and trust so that larger groups could be formed. However, the issue of trust was a constant problem that threatened the sustainability of these groups.

Sustaining cooperation: the problem of trust

Once groups had been established, a more difficult task for development agencies was to support and sustain these groups as problems of cooperation and trust emerged. These newly-formed financial assets of the poor were dependent on social capital for their success, and trust and cooperation were needed at various levels, for example between the NGO representatives and the group members, or between group members.

The research found that the trust needed to sustain these savings and credit groups was often lacking, which led to the breakdown of several groups over the eight month research period. In other words NGOs found it difficult to build relationships of trust beyond the self-selected group with which people felt most comfortable. Problems of trust emerged for several reasons, such as abuse of savings funds by group leaders, members breaking the group's rules by taking loans to finance their husband's money lending activities or illicit alcohol business, or by reporting to 'outsiders' what was discussed at group meetings. Thus another possible area of research that stems from this thesis concerns the question of trust and cooperation, and how external agencies can build trust to sustain the financial institutions of the poor in different contexts.

10.4.3 Summary of policy conclusions

Section 10.4 has focused on the factors on which policy-makers can build to address ATP difficulties in Sri Lanka. These are summarised in Box 10.3 below.

Box 10.3: Summary of policy conclusions

Building pro-poor health systems

1. Free treatment for children, for regular treatment of chronic conditions, and in particular for inpatient services, offered vital protection against potentially high or catastrophic illness costs for a range of household types.
2. User fees at government health services are likely to impose damaging cost burdens on a range of household types, because the research has shown that illness cost burdens do not have to be high to threaten a household's consumption of basic needs and cause damaging cost management strategies.
3. If introduced at government facilities, user fees would have to be considerably lower than private sector fees, since the latter often caused damaging cost management strategies. Alternatively, higher fees could be supported by an exemption system for the poor, but there would have to be a high income threshold to protect the range of households needing protection.

Building assets

4. Households require additional assets to act as insurance against the costs of illness. Development agencies from the NGO sector have played an important role in building up the financial institutions of the poor in Colombo.
5. Agencies should focus their efforts on building financial institutions that (a) allow small amounts to be saved on a flexible basis, (b) provide cheap credit, and (c) allow people to redeem pawned items by installments.
6. To build sustainable financial institutions, development agencies also need to build social capital within the organisations they establish, developing trust and cooperation among leaders and members.

10.5 An ability to pay research agenda

This thesis has developed conceptual understanding and policy-relevant knowledge on ATP for health care, through in-depth analysis of the problem in one particular urban context. However, gaps in knowledge about ATP that are relevant to developing policy still exist in other contexts, in particular different livelihood and health system contexts. For example factors influencing ATP may be different in more remote or rural areas with a greater seasonal dimension to livelihoods. Or ATP issues may be different in situations where user fees are charged at public facilities and exemption systems are ineffective in reaching the poor (see Table 10.2).

The thesis also raised additional questions for future research on ATP for health care. Firstly, trust and cooperation were shown to be important factors that influenced households' social asset endowments, but the thesis also touched on the importance of trust for building sustainable financial assets for the poor. Thus another area of research

on ATP relevant to policy is how external agencies can build trust to sustain the financial institutions of the poor.

Table 10.2: An ability to pay research agenda

<p>Other livelihood contexts: factors influencing ATP How do the factors that influence ATP differ from urban settings?</p> <ul style="list-style-type: none"> • In rural areas and where people are dependent on seasonal income; • In more remote areas where travel times and costs are higher; • In areas where different types of material asset are important, for example livestock rather jewellery. <p>What implications do these different contexts have for ATP, and what are the main contrasts between urban/central and rural/remote areas?</p>
<p>Other health system contexts How do different financing policy and public–private delivery configurations influence the poor’s access to health services and ATP?:</p> <ul style="list-style-type: none"> • How do user fees affect ATP, with respect to illness costs, coping and their implications for household livelihoods? How is ATP affected when fees are charged at all levels of the health system, or where primary care is free but hospitals still charge fees? • How effective are exemption systems in reaching the poor and what measures can be taken to improve these mechanisms?
<p>Material assets</p> <ul style="list-style-type: none"> • What factors allow development agencies to build trust that leads to sustainable financial institutions for the poor?
<p>Social assets The role that social assets play in helping the poor access health services:</p> <ul style="list-style-type: none"> • What factors improve provider attitudes and increase the trust between patients and health workers? • What role do social assets or relationships play in providing information that improves the poor’s access to health services? <p>A continuation of research on social assets will also need to develop methods that can arrive at a basic measurement of social networks and social assets for larger samples of households or at a community level. This will be important to allow comparisons of social asset levels in different areas.</p>
<p>Financial management How do intra-household relations and resource allocation decisions in a context of user fees and weaker female autonomy influence ATP for health care for women, children and other members of the household?</p>

Secondly, the thesis showed that the relationship between the doctor and the patient influenced health seeking behaviour and illness costs. This relationship therefore influenced the effectiveness of health services in reaching the poor. More work at the level of the health system to develop knowledge about the factors that improve provider attitudes and increase the trust between patients and health workers is needed to improve

the poor's utilisation of public health services and reduce illness cost burdens. And linked to this question of trust between provider and patient is the role that social assets or relationships play in providing information that improves the poor's access to health services (Table 10.3).

Thirdly, the thesis examined the question of financial management and resource allocation within the household, in particular the question of how male spending exacerbated ATP problems for other household members. However, it did not examine intra-household resource allocation decisions in detail, or the factors that influenced these decisions. In a user fee context where women and children need money to pay for health care, and where females enjoy less autonomy in the household, these intra-household inequalities are likely to cause more acute ATP problems for certain individuals within the household and require more detailed investigation.

To address these gaps in knowledge, the next step for research on ATP for health care is to take the framework developed in this thesis and apply it in other livelihood and health system contexts. This research could adopt a hypothesis-driven approach that can compare different livelihood contexts (rural-urban) or health system contexts (cross-country comparisons). Such a comparative approach will allow the questions above to be evaluated and develop more detailed policy-relevant knowledge about the mechanisms that make households resilient to processes of impoverishment triggered by illness.

Knowledge about how to mitigate processes of impoverishment caused by catastrophic illness in different country contexts lags well behind the rise of concern about the problem, and developing this knowledge is an important area for future research. For example the types of financing policy and public/private delivery configurations that allow the poor to access health services at low cost is currently at the forefront of donors' research and policy agendas (DFID 1999; Haines et al. 2000; WHO 1999a, 1999b). Such work may be particularly relevant in countries where, firstly, user fees have been implemented at government health services, and secondly, where the impact of diseases such as HIV/AIDS and TB on livelihoods and impoverishment is likely to be a widespread problem.

Appendix A: Household survey instrument

A1: English version of the survey instrument

The English version was translated into Sinhala for actual use.

ATP for health care study

Questionnaire

Household ID

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Name

Address

Introducer

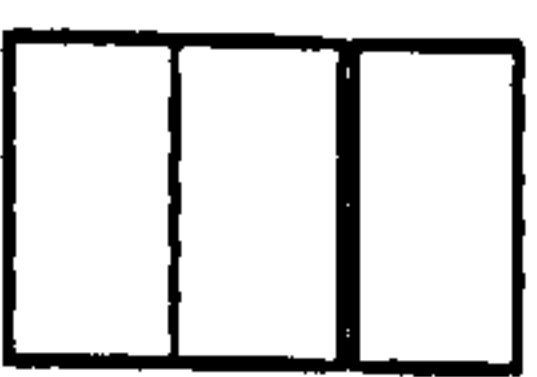
Interviewer

Date

Time

Verbal consent from respondent

Respondent	Verbal consent received	If no, reason



Section 1

- 1.1 For how long have you been living in Sri Siddathapura / Obeyesekerapura?
- 1.2 How many people are members of this household / live in this house?
- 1.3 How many families live in this house?
- 1.4

1	2	3	4	5	6	7	8	9	10	11	12	
ID code	Relationship to HH head	M	F	Ethnicity	Age	Marital status m s w d sp.	Education level	Health or life insurance	Long term or chronic illness	Hospital in the last year	Pregnant or childbirth	Illness in last 2 weeks

- 1 Sinhala
- 2 Tamil
- 3 Muslim
- 4 Burgher

- 1 none
- 2 grades 1-9
- 3 O level
- 4 A level
- 5 Further
- 6 University

- 1 none
- 2 health ins.
- 3 life ins
- 4 samurdhi

- 1 once
- 2 twice
- 3 three times
- 4 no
- 9 don't

- 1 pregnant
- 2 childbirth
- 3 neither
- 4 both

- 1 no
- 2 yes
- 9 dknow

- 1 none
- 2 blind
- 3 one eye weak/no sight
- 4 deaf
- 5 speech problem
- 6 amputated limb
- 7 poorly functioning limb
- 8 mental disablility
- 9 half paralysed
- 10 diabetes
- 11 asthma
- 12 TB
- 13 high blood pressure
- 14 low blood pressure
- 15 malaria
- 16 leprosy
- 17 cancer
- 18 back problems
- 19 chest problems
- 20 rheumatic/arthritis/joints
- 21 skin disease
- 22 other
- 99 no answer
- 9 don't know

SECTION 2: INDIVIDUAL CHRONIC HEALTH PROBLEM

Respondent ID code

2.1 Do you have any *regular* medicine, check-ups or tests, or do anything else for this health problem?

1 = yes 2 = no (if no go to 2.13) -9 = don't know

2.2 What do you do? (see the codes on page 3 of the Guidelines)

2.3 How often do you seek or get this treatment?

1 twice per week	6 twice per month
2 once per day	7 once every 6 months
3 once per week	8 once per year
4 once per month	9 not regular time but at least once/month
5 once every 3 months	10 once only/rarely
	-9 don't know

2.4 Does somebody normally accompany you to get this treatment?

1 no	4 relative
2 household member	5 other
3 friend / neighbour	

2.5 Normally how long do your trips to get treatment or remedies take?

1 less than 1 hour	4 one day
2 1-3 hours	5 more than one day
3 half-day	-9 don't know

2.6 Now we want to ask some questions about how much money you need to spend when you get your treatment. In the *last month* how much money did you spend? (open question, then prompt)

Any drugs, herbs, remedies

X-rays, blood, urine or other tests

Payment to visit a private clinic, hospital, western or ayurvedic doctor, priest, exorcist etc...

Any (informal) payments to people at government facilities

Transport costs

Food and drink during the journey/visit

Vows/alms to gods or temples

Other

TOTAL

Respondent ID code

2.7 Do you normally spend this amount each month on your condition?
 1 = yes (go to 2.9) 2 = no (go to 2.8) -9 = don't know (go to 2.9)

2.8 What do you normally spend?

1 the amount varies	4 nothing
2 less	-9 don't know
3 more	-99 no answer

2.9 On your last visit to get your regular treatment did you have enough cash available to pay for all the expenses you have just mentioned?

1 = yes (go to 2.10) 2 = no (go to 2.11) -9 = don't know (go to 2.10)

2.10 Have there been other times when you have not had enough money available to pay for your treatment?

1 = yes (go to 2.12) 2 = no (go to 2.11) -9 = don't know (go to 2.12)

2.11 What do you do when there is not enough money available to pay for your regular treatment?

(see the codes on page 4 of the Guidelines)

2.12 Why do you get your regular treatment from [_____]?

1 cheap treatment
2. at Government facilities it takes a long time
3 you can obtain treatment quickly
4. it is close
5 good or familiar doctor
6 prescribed medicine / drugs are available
7 prescribed medicine / drugs are not available
8 The medicine/treatment is effective
9 The medicine/treatment is not effective
10 Kind/polite staff
11 Unkind/impolite staff (at government hospital)
12 Other
13 Free treatment
14 It is possible to get treatment on credit

2.13 Why don't you seek any regular treatment for your condition?

1 not necessary – do not think it is serious
2 not necessary – there is no treatment to improve it
3 do not like to visit doctors or hospitals
4 the treatment or drugs are not effective
5 it is too long to wait at government facilities
6 government health staff are not polite / rude
7 nobody to accompany me
8 too expensive
9 western medicine is too strong / inappropriate
10 other
-9 don't know
-99 no answer

SECTION 3: CHILDBIRTH QUESTIONNAIRE

Respondent ID code

<p>3.1 Where did the delivery take place? (see the codes on page 3 of the Guidelines)</p>																																																	
<p>3.2 When you had the baby did you have to spend any money on medicine, tests, transport or anything else? 1 = yes 2 = no (finish) -9 = don't know (finish)</p>																																																	
<p>3.3 How much did you have to spend (on) Open question then prompt</p>																																																	
<table border="1"> <tr> <td>Hospital or nursing home IP fees</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Specialist consultations</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X-rays, blood, urine or other tests</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Medicines/drugs</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gifts or any (informal) payments to people at government facilities</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cesarian or other surgery</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Transport costs</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">TOTAL.</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Hospital or nursing home IP fees					Specialist consultations					X-rays, blood, urine or other tests					Medicines/drugs					Gifts or any (informal) payments to people at government facilities					Cesarian or other surgery					Transport costs					Other					TOTAL.								
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Other																																																	
TOTAL.																																																	
<p>3.3 Did you have enough cash available to pay for all the expenses you have just mentioned? 1 = yes (finish) 2 = no -9 = don't know (finish)</p>																																																	
<p>3.4 What did you do when there was not enough money available to pay for these expenses? (see the codes on page 4 of the Guidelines)</p>																																																	

SECTION 4: HOSPITALISATION QUESTIONNAIRE

Respondent ID code

<p>4.1 In which hospital or hospitals did you stay?</p> <p>4.2 For how many days were you in hospital?</p> <p>4.3 Did you have to pay for anything (tests, medicines, surgery, transport or anything else) when you became ill and had to go to hospital?</p> <p>4.4 How much did you have to spend (on) Open question then prompt</p>																																															
<table border="1"> <tr> <td>Ambulance charge</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hospital IP fees</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Specialist consultations</td> <td></td> <td></td> <td></td> </tr> <tr> <td>X-rays, blood, urine or other tests / surgery</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Medicines</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gifts or any (informal) payments to people at government facilities</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Obtain doctor's certificate</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Transport costs</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Don't know</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">TOTAL.</td> <td></td> <td></td> <td></td> </tr> </table>	Ambulance charge				Hospital IP fees				Specialist consultations				X-rays, blood, urine or other tests / surgery				Medicines				Gifts or any (informal) payments to people at government facilities				Obtain doctor's certificate				Transport costs				Other				Don't know				TOTAL.						
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Don't know																																															
TOTAL.																																															
<p>4.5 Did you have enough cash available to pay for all the expenses you have just mentioned? 1 = yes (finish) 2 = no -9 = don't know (finish)</p>																																															
<p>4.6 What did you do when there was not enough money available to pay for these expenses? (see the codes on page 4 of the Guidelines)</p>																																															
<p>4.7 At the time you were in hospital did you have a job? = yes 2 = no (if no go to 4.10)</p>																																															
<p>4.8 How many days were you unable to do your job because of this illness/accident?</p>																																															
<p>4.9 Have you been able to do your job / work since you left hospital?</p>																																															
<p>4.10 How many days were you unable to do your normal daily activities because of this illness/accident?</p>																																															

SECTION 5: TWO WEEK MORBIDITY

Respondent ID code

<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;">Illness 1</div>			
<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;">Illness 2</div>			
<p>5.1 You said that you had suffered from _____ in the last 14 days; for how many days did you suffer from it?</p> <p>5.2 Are you still suffering from _____ today?</p> <p>5.3 After you realised that you were sick, did you take any action? First, second, third, fourth (see the codes on page 3 of the Guidelines) if no treatment sort go to 5.4 if delayed treatment for more than two days go to 5.5 if took/sort treatment go to 5.6</p> <p>5.4 Why didn't you take any treatment?</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <ol style="list-style-type: none"> 1 Do not think it is serious 2 Nothing can be done to improve it – no treatment available 3 Do not like to visit doctors or hospitals 4 Treatment or drugs are ineffective 5 Too long to wait at government facilities 6 Busy at home – had no time 7 At work – had no time 8 Government health staff are rude 9 Nobody to accompany me 10 Did not have cash readily available 11 Had to wait until I received pay/loans 12 Too expensive 13 Other -9 don't know -99 no answer </div>			
<p>5.5 Why did you not seek / take treatment in the first two days?</p>			

Respondent ID code

5.6 Why did you get regular treatment from [_____] ?

- | | | | |
|--|--|--|--|
| <p>1 cheap treatment
 2. at Government facilities it takes a long time
 3 you can obtain treatment quickly
 4. it is close
 5 good or familiar doctor
 6 prescribed medicine is available
 7 prescribed medicine is not available (at government facilities)
 8 The medicine/treatment is effective
 9 The medicine/treatment is not effective
 10 Kind/polite staff
 11 Unkind/impolite staff (at government hospital)
 12 Other
 13 Free treatment
 14 It is possible to get treatment on credit</p> | | | |
|--|--|--|--|

5.7 Now we want to ask some questions about much you spent in the last 14 days to get your treatment. Try and remember exactly what you spent (on.....)

- | | | | |
|--|--|--|--|
| <p>Any drugs, herbs, remedies
 X-rays, blood, urine or other tests
 Food and drink during the journey/visit
 Payment to visit a private clinic, hospital, western or ayurvedic doctor, priest, exorcist etc...
 Any (informal) payments to people at government facilities
 Transport costs
 Vows/alms to gods or temples
 Other</p> <p style="text-align: right;">TOTAL</p> | | | |
|--|--|--|--|

5.8 Did you have enough cash available to pay for all the expenses you have just mentioned?

1 = yes (go to 5.10) 2 = no (go to 5.9) -9 = don't know (go to 5.10)

Respondent ID code

- | <p>5.9 What did you do when there was not enough money available to pay for these expenses?
(see the codes on page 4 of the Guidelines)</p> | | | |
|---|--|--|--|
| <p>5.10 Do you work or have a job which brings income to the household?
If no go to 5.13</p> | | | |
| <p>5.11 Over the last 14 days was your work / job affected by the illness or injury?
If no go to 5.15</p> | | | |
| <p>5.12 For how many days were you unable to do your normal job / work because of this illness/injury?
Go to 5.15</p> | | | |
| <p>5.13 Over the last 14 days were your normal daily activities / school attendance affected by this illness / injury?
If no go to 5.15</p> | | | |
| <p>5.14 How many days were you unable to do your normal daily activities or attend school because of this illness / injury?</p> | | | |
| <p>5.15 Did anybody have to care for you while you were sick, or accompany you to get treatment? If no finish</p> | | | |
| <p>5.16 Does this person work or have a job which brings income to the household? If no go to 5.19</p> | | | |
| <p>5.17 Over the past 2 weeks was this person's work or job affected because they were caring for you? If no finish</p> | | | |
| <p>5.18 For how many days was this person unable to do their work because they were caring for you?</p> | | | |
| <p>5.19 Were the carer's normal daily activities affected because they were caring for you?</p> | | | |
| <p>5.20 For how many days was the carer unable to do his/her normal daily activities because he/she was caring for you?</p> | | | |

6.1 What do you consider to be the most important things for a satisfactory or adequate life? The things you choose can be material or non-material. Please feel free to discuss this question amongst yourselves before you answer.

6.2 Are you or others in this household involved with or members of any societies, organisations or groups? These could be large or small. They might be inside or outside this community.

Inside community	Outside community
1 No	12 Political organisation
2 Kuda samiti (small group)	13 Trade union
3 Youth group	14 Funeral society
4 Women's group	15 Religious organisation
5 Community Development Council	16 Other
6 Political organisation	-9 don't know
7 Funeral society	
8 Pre-school	
9 Shanti (local NGO)	
10 Religious organisation	
11 Other	
-9 don't know	

ID code	1 st org	2 nd org

6.3 In the last 5 years has anybody in this household stopped their involvement with any local organisations, groups or societies?
 1 = yes 2 = no (go to 6.6) -9 = don't know (go to 6.6)

6.4 Which organisations or groups were they previously involved with

6.5 Why did they stop their membership or involvement? (see the codes on page 5 of the Guidelines)

ID code	6.4	6.5
	Org	Reason

6.6 If people in this household need to borrow money for every day items such as food or medicine, where do they normally go for help?

- 1 no source of help
- 2 does not borrow
- 3 relative in SSP/Obe
- 4 relative outside SSP/Obe
- 5 friend/neighbour inside SSP/Obe
- 6 friend outside SSP/Obe
- 7 work colleague
- 8 community leader
- 9 current / past employer
- 10 shop / business
- 11 money lender in SSP/Obe
- 12 family member
- 13 pawn goods
- 14 money lender outside SSP/Obe
- 15 Kuda samiti
- 16 Women's society
- 17 Community Development Council
- 18 SiTu
- 19 Savings group
- 20 Community bank
- 21 NGO
- 22 Work-based group
- 23 Commercial bank
- 24 Other
- 25 NHDA

Source	

6.7 If people in this household need to borrow larger sums of money, say Rs.1000, where do they go for help?

Source	

6.8 Does anybody in this household currently owe money to anybody or any organisation? put amount

2 = no current debt

If no debt go to section 7

Source		Rs.

6.9 Have you borrowed any of this money to pay for health care or treatment?

7.1 Have you finished building this house (ie. main walls, roof, floor)

1 = yes, complete 2 = no, incomplete (go to 7.3) -9 = don't know

7.2 When did you complete / finish building the house?

7.3 What are the walls / floor / roof / made of?

wall floor roof

Wood	1	1	1
Tile	2	2	2
Aluminium / metal	3	3	3
Brick / cement	4	4	4
Other	5	5	5

7.4 Do you rent or own this house?

7.4

7.5 (Rs)

Rent	1	
Own – through loan	2	
Own outright	3	
Other	4	
Don't know	5	
Tax/rates	6	

7.5 How much is your rent/loan repayment / tax each month?

7.6 Was this house built with the help of a loan from the National housing Development Authority?

7.7 Do you have the deeds for this house?

7.8 How does this dwelling obtain water for drinking?

Private (in house) supply	1
Common / public tap	2
Private well	3
Public well	4
Other	5

7.9 What toilet facilities do you have access to?

Private toilet	1
Common / public toilet	2
Other	3

7.10 After heavy rain does your house ever flood?

Never	1
Occasionally	2
Rarely	3
Often	4

Guidelines and code sheet for enumerators

1. General

Introduction to household

- ask a community member/leader to introduce you to households at the start or end of each day. Make an appointment to interview each household.
- when you first meet each household introduce and explain the research and answer any questions that the respondent has.
- specify who we need to talk to: the household head, the spouse, and if possible the heads of other families in the household, and anybody who has recently been sick.

Description of the research

This survey is part of a research project being jointly undertaken by the University of London, England, and Colombo University. The aim of the study is to investigate what people do when they are sick, where they go for treatment, how much they spend on different types of treatment and medicine, and whether families have difficulty obtaining the treatment and medicines they need. Your family has been randomly selected to take part in the survey.

We are sociologists and we wish to hear about your experience and opinions about these health-related issues. Your help and information is vital for this research project. Hopefully you will also find many of the questions interesting.

We would like to assure you that the information you provide will be treated strictly confidentially. No government department, government officers or other organisations will be able to trace any of your answers back to you. We would like you to be as accurate and honest as possible when giving your answers. We expect the interview to last about 1 hour.

NOTE: If questioned further about why they should participate, what results are expected for them, you can explain the following:

Benefits of participating in the survey:

- no immediate benefits to you - we are from the university and not from any government department or NGO which can offer services, facilities or medicines.
- the information which you and other families provide may benefit many people in the future – mention the international policy question of user fees
- we also want to contribute something to the community to show our thanks for your help and other families' help. So a member of the research team from the UK hopes to start/has started English classes here.

2. Section 1 - Filling the Table

Definition of the household

First list all the people who live in the household – as they are related to the respondent. They may be members of the family, relatives, friends or lodgers who:

- ✓ live in the house for more than 10 days per month
- ✓ share the common food prepared in the household
- ✓ contribute their financial resources (if they have any) for common goods (food, cleaning items)
- ✓ live elsewhere but who contribute money on a regular basis – for these people only complete basic details in the Table up to column 5 and then the income they contribute in Question 8.3.

Disease prompts

For column 12 ask:

“Now I would like to ask about people’s health in the last 14 days. Has anybody been ill or had an accident in the last two weeks? Please think and remember whether you have been ill, even if it was only mild/a cold”

This should be an open question, but after some time probe for common health problems and symptoms: diarrhea; fever; cough and cold; breathing difficulties; headache; toothache; gastric or abdominal pain; skin diseases (itching, scabies, boils); eye infections; ear infections; rheumatic problems; minor injury

After completing the tables fill the relevant sections (2,3,4,5) before moving on to sec 6.

3. Other sections

For sections 2-5 the respondent should be the sick individual, but if that person is unavailable talk to somebody who knows about the problem. The term ‘you’ in all the questions would then be changed to be ‘the sick person’.

When asking about treatment seeking behaviour or health expenditure, first ask an open question (Do you treat this problem? What do you do? Where do you go? Did you have spend any money? What did you have to spend money on?), and then prompt a little if the respondent remains quiet, seems to have missed something obvious etc..

4. Common codes

The following tables present key codes which are required more than once in the survey.

Treatment source

Treatment		Treatment	
Did not seek treatment	1	Tests	
did not seek treatment in the first 2 days	2	Government hospital	24
home-made traditional remedy	3	municipal dispensary	25
western medicine in the home	4	NGO / charity organisation	26
		Private clinic or hospital	27
Obtain western drugs		Ayurvedic hospital	27a
From a nearby shop	5		
Municipal dispensary	6	INPATIENT CARE	
free drugs from an NGO	7	Government maternity home	28
private pharmacy	8	Government hospital	29
government hospital	9	private hospital/nursing home	30
from friends/contacts in the health system	10	Other	31
Obtain Ayurvedic medicine		Puja	
Government ayurvedic doctor/dispensary	11	Prayer/chant/giving water	32
Private ayurvedic doctor/dispensary	12		
Consultation/obtain advice			
Municipal dispensary doctor	13		
Government hospital doctor	14		
NGO or charitable free treatment	15		
Private clinic or hospital doctor	16		
Ayurvedic doctor	17		
<i>Weda Mahattaya</i>	18		
Exorcist	19		
Astrologer / palm reader	20		
Priest	21		
physiotherapist	22		
Other	23		

When there is not enough money to pay for treatment, what do you do?

Change treatment		Use household savings	27
Stop treatment due to the costs	1	Pawn valuables	28
Delay treatment until money is available	2		
Go to nearer/cheaper provider	3	Reduce spending on	
Obtain cheaper treatment	4	Food	29
Do not buy all prescribed treatment or drugs	5	Fuel	30
		Education	31
		Other health expenditure	32
Borrow from		Household durables/goods	33
A household member	6	Clothing	34
Relative in SSP/Obe	7	Home improvements	35
Relative outside SSP/Obe	8	Business investments	36
Friend/neighbour in SSP/Obe	9	Productive assets	37
Friend outside SSP/Obe	10	Dowry/wedding	38
Work colleague	11	Savings/Seetu contributions	39
Community leader	12	Other	40
Current/past employer	13		
Shop/business	14	Sell	
Money lender in SSP/Obe	15	Household valuables	41
Money lender outside SSP/Obe	16	Productive assets	42
Kuda Samiti	17	Other	43
Kantha Samiti	18		
Community Development Council	19	Help/financial gifts from	
SiTu group	20	Relative in SSP/Obe	44
Savings group	21	Relative outside SSP/Obe	45
Gramiya/community bank	22	Friend/neighbour in SSP/Obe	46
NGO	23	Friend outside SSP/Obe	47
Work-based group (formal/informal)	24	Current/past employer	48
Commercial bank	25	Other	49
Other	26	Other	50

Reasons for choosing treatment source/place

Reason		Reason	
Cheap treatment	1	The medicine/treatment is effective	8
At government facilities it takes a long time	2	The medicine/treatment is not effective (at government hospital)	9
You can obtain treatment quickly	3	Kind/polite staff	10
It is very close	4	Unkind/impolite staff (government hospital)	11
Good or familiar doctor	5	Other	12
The prescribed medicine is available	6	Free treatment	13
The prescribed medicine is not available at government facilities	7	It is possible to get treatment on credit	14
		Don't know	-9

Reasons for stopping membership or activities in a CBO

Reason		Reason	
Left – no longer liked it	1	Political interference/take-over	9
Left – no benefits	2	No longer eligible	10
Left – no time	3	Too expensive/costly	11
Left – waste of time/effort	4	No reason	12
Organisation not well managed	5	Thrown out of organisation	13
Change of organisation's leadership	6	Other	14
Organisation collapsed	7	Don't know	-9
Organisation was forced to close by others	8	No answer	-99

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1 അനുകൂലം

1.1 ഇൻ കോമ്പൗണ്ട് അല്ലെങ്കിൽ ഇൻ കോമ്പൗണ്ട് ആയിട്ടുള്ളതെന്തെല്ലാം? (പരമ്പര - 9) 50

1.2 ഒരു നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നതിന് കാരണമെന്തെല്ലാം? (പരമ്പര - 9) 4

1.3 ഒരു നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നതിന് കാരണമെന്തെല്ലാം? (പരമ്പര - 9) 1

1	2	3	4	5	6	7	8	9	10	11	12
നോട്ട്	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു	പ്രതിരോധനം നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു
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190 കി.മീ. നോട്ട് ചെയ്തുകൊണ്ടിരിക്കുന്നു

1. പ്രതിരോധനം

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6. പ്രതിരോധനം

7. പ്രതിരോധനം

8. പ്രതിരോധനം

9. പ്രതിരോധനം

10. പ്രതിരോധനം

11. പ്രതിരോധനം

12. പ്രതിരോധനം

13. പ്രതിരോധനം

14. പ്രതിരോധനം

2 වන වගුව: නිදන්ගත රෝගීන් සඳහා පරීක්ෂණ පටිපාටිය

වර්ෂ වයස:

	0	1		
2.1 බඩ බඩපත් රෝගය සඳහා ව්‍යාධිකිලි ප්‍රතිකාර, පරීක්ෂණ බෙහෙත් හෝ වෙනත් ඖෂධ නිරීක්ෂණය කර ඇතිද? 1. ඔව් - 9 වෙනුවට. (අවසන් කළහොත්) 2. නැත (වෙනුවට 2.13)	1			
2.2 මෙම රෝගීන් තත්ත්වය සඳහා කුමන දෙයක් බඩ කළහොත්ද මෙම තොරතුරු ලබාගැනීම සඳහා බලන්න, පර්යේෂණ සඳහා බෙහෙත් - විට වයස 3	9			
2.3 කොහොන්ඩ් කාලයට ව්‍යාධිකිලි ප්‍රතිකාර ලැබීම සඳහා ඇතිද? 1 සරියකට 2 වරක් 2 දිනකට වරක් 3 සතිකට වරක් 4 මාසකට වරක් 5 සෑම මාස 3 කට වරක් 6 මාසකට 2 වරක් 7 සෑම මාස 6 කට වරක් 8 අධික වරක් 9 නොමැති කාලයක්. (නැත) 10 නිතරින්/නොනිතරින් (වෙනුවට 2.13) 9 වෙනුවට.	4			
2.4 බඩ හෝ රෝගීන් ප්‍රතිකාර ලැබීමට ගොස්ද? ඒ සඳහා කවුරුද? නිරීක්ෂණය කර ඇතිද? 1 නැත 2 නිතරින් 3 ගැටලුවක් / අසාධකයක් 4 නැත 5 වෙනත්	1			
2.5 කොහොන්ඩ් කාලයට ව්‍යාධිකිලි ප්‍රතිකාර ලැබීමට නොමැති වීමට හේතු කුමක්ද? 1 දැනට අඩුයි. 2 දැනට 1-3 වරක් 3 වෙනත් 4 දිනකට 5 දිනකට වරක් 6 9 වෙනුවට.	3			

අනු අංකය:

0 | 1

2.6 මේ රෝගය සඳහා බඩ නොතරම් මූල ප්‍රමාණයක් විශද්‍රව කිරීමට හැකිද?
 ඒ සඳහා පසුගිය මාසේ නමුත් විශද්‍රව වෙනස් කර බලන්න.

අයිතමය	නිවැසි විශද්‍රව	නිවැසි විශද්‍රව	නිවැසි විශද්‍රව
සිංහල බෙහෙත් මුද්‍රිත බෙහෙත්			
චන්ද්‍ර, මේ මුත්‍රා සහ අනෙකුත් ජීවීන්			
ප්‍රතිකාර ගැනීම - ප්‍රොසෙලින වෛද්‍යවරයා / අයුරු වෛද්‍යවරයා, දුර්වල, සෞඛ්‍ය සේවා - ප්‍රතිකාර ගැනීම			
ප්‍රතිකාර ගැනීම - ප්‍රොසෙලින වෛද්‍යවරයා / අයුරු වෛද්‍යවරයා, දුර්වල, සෞඛ්‍ය සේවා - ප්‍රතිකාර ගැනීම			
ප්‍රතිකාර ගැනීම - ප්‍රොසෙලින වෛද්‍යවරයා / අයුරු වෛද්‍යවරයා, දුර්වල, සෞඛ්‍ය සේවා - ප්‍රතිකාර ගැනීම			
ප්‍රතිකාර ගැනීම - ප්‍රොසෙලින වෛද්‍යවරයා / අයුරු වෛද්‍යවරයා, දුර්වල, සෞඛ්‍ය සේවා - ප්‍රතිකාර ගැනීම	5/2		
ප්‍රතිකාර ගැනීම - ප්‍රොසෙලින වෛද්‍යවරයා / අයුරු වෛද්‍යවරයා, දුර්වල, සෞඛ්‍ය සේවා - ප්‍රතිකාර ගැනීම	20/2		
වෙනත්			
එකතුව	25/2		

2.7 බඩගේ රෝගය සඳහා ආධාරයක් ලෙස මේ විශද්‍රව සඳහා මාසකට වැඩි විය කැපවද?
 1. බව (යන්ත 2.9) 2. නැත (යන්ත 2.8)
 -9. නොදන්න. (යන්ත 2.9)

1

2.8 ආධාරයක් ලෙස බඩ නොතරම් විශද්‍රව කැපවද?

1 මූල වෙනස් වීම	4 නිවැසි මූල වෙනස් වීම
2 අඩුවීම	-9 නොදන්න.
3 වැඩිවීම	-99 දුර්වල නැත.

2.9 පසුගිය වසරේදී, බඩගේ ප්‍රතිකාර වලට හේතුවක් ලෙස මූල නිවැසිද?
 1. බව (යන්ත 2.10) -9 නොදන්න (යන්ත 2.10)
 2. නැත (යන්ත 2.11)

ඒක වරක:

	0	1		
2.10 මෙහි මාසවලින් එ විදුලි මෝටරයක ප්‍රතිකාර කළහොත් කොපමණ වැඩ වැටුප් ලැබේ? 1. වැඩ (විෂය 2.1.1) - 9 කොටස් (විෂය)	2			
2.11 ඔබගේ මෝටරයක ප්‍රතිකාර කළහොත් කොපමණ වැඩ වැටුප් ලැබේ? වැටුප් - ජ්‍යෙෂ්ඨතාවය පරිදි - විෂය 4	6			
2.12 ඔබගේ මෝටරයක ප්‍රතිකාර කළහොත් කොපමණ වැඩ වැටුප් ලැබේ? (විෂය ප්‍රතිකාර)	8 13			
<div style="border: 1px solid black; padding: 5px;"> 1 මෝටර ප්‍රතිකාර 2 ජ්‍යෙෂ්ඨතාවය පරිදි ප්‍රතිකාර 3 කොටස් කොටස් වලින් ප්‍රතිකාර කළහොත් 4 ප්‍රතිකාර කළහොත් ප්‍රතිකාර කළහොත් 5 වැඩ/වැටුප් වැටුප් 6 විදුලි මෝටරයක ප්‍රතිකාර කළහොත් 7 විදුලි මෝටරයක ප්‍රතිකාර කළහොත් 8 විදුලි මෝටරයක ප්‍රතිකාර කළහොත් 9 විදුලි මෝටරයක ප්‍රතිකාර කළහොත් </div>				
2.13 ඔබගේ මෝටරයක ප්‍රතිකාර කළහොත් කොපමණ වැඩ වැටුප් ලැබේ?				
<div style="border: 1px solid black; padding: 5px;"> 1 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 2 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 3 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 4 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 5 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 6 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 7 වැඩ වැටුප් - මෝටරයක ප්‍රතිකාර කළහොත් 8 වැඩ වැටුප් 9 වැඩ වැටුප් 10 වැඩ වැටුප් </div>				

3 කොටස: දැරූ උපන් සිද්ධි ප්‍රවණතාවය.

පසුගිය මාස 3 තුළදී දැරූ උපන් සිද්ධි ප්‍රවණතාවය සඳහා.

වයස.

3.1 දැරූ උපන් සිද්ධි ප්‍රවණතාවය කුමක්ද? බලන්න පර්යේෂණය සඳහා පරිමාණ - පිටු වගුව 3 (සංයෝග)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3.2 ඔබට හෝ වැඩි දරුවා ලැබීමට හර හෝ පසුගිය කාලයේ හෝට්ටි මුද්‍රාදීම? 1 ඔව් - 9 කොටස්. 2 නැත (නොමැති වන්න)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3.3 දැරූ හෝ බඩ කොටුවේ මුද්‍රාදීම සිදු කෙරුණද? (වැරදි උපන් සිද්ධි සඳහා පමණක් දැනී වැඩිකරගත් බලන්න)			
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කේත	ඊ:	ඊ:	ඊ:
රෝගාලේ හෝ රෝගාලයේ සිටිම සඳහා			
නියෝජ්‍ය උපදෙස් ලබාගැනීම සඳහා			
පරීක්ෂණ හෝ සත්‍ය කිරීම සඳහා			
කුමන හෝ බෙහෙවින් සඳහා			
කැපී හෝ (වැඩිමත්) හෝට්ටි සඳහා			
සිසිල් රැස් හෝ හිනාන සැකිලි සඳහා			
ප්‍රවේශන මාර්ග			
හිනාන			
එකතුව			

3.4 ඔබ විවිධ සිද්ධි සඳහා හෝට්ටි මුද්‍රාදීම ලබා ගත්හද? 1 ඔව් (වැඩිමත්) 2 නැත (යන 3.5) - 9 කොටස් (වැඩිමත්)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3.5 දැරූ ප්‍රවණතාව සඳහා හෝට්ටි බඩ කොටුවේ මුද්‍රාදීම කෙරුණද හෝ කුමක් කළේද? බලන්න පර්යේෂණය සඳහා පරිමාණ - පිටු වගුව 4 සංයෝග සඳහා	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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4: පසුගිය වසරවලදී ඔබගේ රෝගාලෝචන මගින් සිදුවූ වෙනස්වීම්.

	වන වර්ෂය																																														
4.1 ඔබගේ රෝගීය තත්වය සිටියේ අධික රෝගීවීමද? (බලපත්‍ර ප්‍රවේශයේ සඳහා පමණි - විූ වර්ෂ 3 - සංගණ්‍ය සඳහා)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
4.2 ගනුදෙනු සිදුවූ රෝගාලෝචන මගින් සිදුවියද?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
4.3 ඔබගේ රෝගීය රෝගාලෝචන මගින් සිදුවූ වෙනස්වීම් අතරින් ඔබගේ නිරෝධ සිදුවීමද? 1 බව - 9 වැනි වර්ෂය 2 නැත - 10 වැනි වර්ෂය 4.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
4.4 ඔබට ඔබේ වෛද්‍යවරයා සඳහා සහතිකයක් ලබාදීමට/ රෝගීයව පිළිබඳව නිරෝධ සිදුවීමද?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>නිල වශයෙන් සහතිකයක්</td><td></td><td></td><td></td></tr> <tr><td>රෝගාලෝචන මගින් සඳහා</td><td></td><td></td><td></td></tr> <tr><td>විද්‍යාත්මක සහතිකයක් ලබාදීමට සඳහා</td><td></td><td></td><td></td></tr> <tr><td>පරික්ෂණ / ප්‍රතිකර්ම</td><td></td><td></td><td></td></tr> <tr><td>බලපත්‍ර</td><td></td><td></td><td></td></tr> <tr><td>සෞඛ්‍ය සේවකයන්ගේ සහතිකයක් සඳහා.</td><td></td><td></td><td></td></tr> <tr><td>සහතිකය</td><td></td><td></td><td></td></tr> <tr><td>වෛද්‍ය සහතිකයක් ලබාදීමට</td><td></td><td></td><td></td></tr> <tr><td>සහතිකයක් ලබාදීමට</td><td></td><td></td><td></td></tr> <tr><td>වෙනත්</td><td></td><td></td><td></td></tr> <tr><td>වෙනත්.</td><td></td><td></td><td></td></tr> </table>	නිල වශයෙන් සහතිකයක්				රෝගාලෝචන මගින් සඳහා				විද්‍යාත්මක සහතිකයක් ලබාදීමට සඳහා				පරික්ෂණ / ප්‍රතිකර්ම				බලපත්‍ර				සෞඛ්‍ය සේවකයන්ගේ සහතිකයක් සඳහා.				සහතිකය				වෛද්‍ය සහතිකයක් ලබාදීමට				සහතිකයක් ලබාදීමට				වෙනත්				වෙනත්.						
නිල වශයෙන් සහතිකයක්																																															
රෝගාලෝචන මගින් සඳහා																																															
විද්‍යාත්මක සහතිකයක් ලබාදීමට සඳහා																																															
පරික්ෂණ / ප්‍රතිකර්ම																																															
බලපත්‍ර																																															
සෞඛ්‍ය සේවකයන්ගේ සහතිකයක් සඳහා.																																															
සහතිකය																																															
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සහතිකයක් ලබාදීමට																																															
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වෙනත්.																																															
	විස්තරය																																														
4.5 ඔබට වෛද්‍යවරයා සඳහා ඔබේ වෛද්‍යවරයා සමඟ වෛද්‍ය සේවයක් සිදුවියද? 1 බව (වෙනත් 4.8) 2 නැත (වෙනත් 4.6) - 9 වැනි වර්ෂය (වෙනත් 4.8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
4.6 රෝගාලෝචන මගින් සිදුවූ වෙනස්වීම් සඳහා සහතිකයක් ලබාදීමට ඔබට ඔබගේ වෛද්‍යවරයාගේ සහතිකයක් ලබාදීමට සිදුවියද? (බලපත්‍ර ප්‍රවේශයේ සඳහා පමණි - විූ වර්ෂ 4 - සංගණ්‍ය සඳහා)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												

අනුභවය:

<p>4.8 බඩ හෝ රෝගියා රෝහල් ගතවී සිටි කාලය තුළ හේලියම් තිබුණද?</p> <p>1. බව 2. නැත 3. නැතිවේ 4. 11 යෝග්.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>4.9 බඩ හෝ රෝගියා රෝහල් සිටි කාලය තුළ කොපමණ දිනක් හේලියම් ගැටිලි හොඳින් වූණද?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>4.10 රෝහලෙන් පිටවීමට පසු බඩ හේලියම් කළ හැකිව තිබුණද?</p> <p>1. බව 2. නැත</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>4.11 බඩ හෝ රෝගියාගේ ප්‍රතිකර්මය මගින් හේලියම් පිළිකරවුණු කිසිවක් හොඳින් වූ පරිසරයක් දින ගණනක් තිබුණද?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. ජනගහන සහිත 2 ක් තුළ පවතින ව්‍යවස්ථාපිත කාර්යයන්

රෝගය: 1.1 _____ 2 _____
 2.1 _____ 2 _____
 3.1 _____ 2 _____

5.1. බඩ නිසා ලෙස ජනගහන දින 14 තුළ බඩ නිසා. දින නිසා එම ව්‍යවස්ථාපිත පවත්වාද?
 කොටුනිම්බ - 9

5.2. නවීන බඩ එම රෝගයෙන් පෙළෙන්නද?
 1. බව 2. නැත.

5.3. බඩ එම රෝගයෙන් පෙළෙන බව දැනගත් පසු ආරක්ෂා ක්‍රියාමාර්ගයන් ගත්තද?
 පවුල, දිවිය, දැනට, නැත
 (බලන්න පර්යේෂණ පදනම පිටපත - පිටු අංක 3 - සංස්කරණ පදනම)
 ප්‍රතිකාර ලබා ගැනීමේ අවස්ථා 5.4 ගන්න.
 ප්‍රතිකාර පවුලේ අවස්ථා 5.5 ගන්න.
 ප්‍රතිකාර ලබා ගන්නා ආකාර 5.6 ගන්න.

5.4. ඇති බඩ ප්‍රතිකාර ලබාගන්නාද?
 හේතු:

රෝගය ව්‍යාධි සහිත රෝගීන්	1	පවුලේ සෞඛ්‍ය සේවකයන් සංඛ්‍යාව	8
සුවිකිරීමේ ක්‍රමයන් ප්‍රතිකාරයේ	2	රෝගීන් සමාජයේ සංඛ්‍යාව	9
වෛද්‍යවරුන් වෛද්‍යවරුන් සමඟ	3	එවකට පවුලේ පවුලේ පවුලේ	10
ප්‍රතිකාර ආගමනය වුවද සුවය	4	පවුල/කාලය වුවද සුවය	11
පවුලේ සෞඛ්‍ය සේවකයන් ලබාගැනීමේ	5	විලි වැඩි	12
නවීන ආර්ථික බලපෑම නිසා සුවය	6	වෙනත්	13
පවුලේ සෞඛ්‍ය සේවකයන් නිසා	7	කොටුනිම්බ	-7
		විලිකරණය	-7

5.5. බඩ දින 2 ක් තුළ ප්‍රතිකාර ලබා ගන්නාද?
 (ප්‍රශ්න සංස්කරණ පදනම සහිතව)

5.6. බඩ රෝගය පදනම බඩ ප්‍රතිකාර ගත් ආකාරයෙන්, ප්‍රතිකාර ලබාගැනීමේ සිතුවම් කර.
 _____ (ආකාරය)

බලන්න පිටු අංක 5 (ප්‍රශ්න අංක 2.12) හෝ බලන්න පර්යේෂණ පදනම පිටපත - පිටු අංක 5 - සංස්කරණ පදනම

වන පටු

5.7 බඩගේ ප්‍රතිකාර සඳහා පුද්ගලික සහිත 2 ක් කාල කොටසක් මුදල් ප්‍රමාණයක් දියකලාද කිසිදු දෑ මැනීමට පවත්වාගැනීමට පහසු කළහත් පවුලේ මෙම දුර්වලතාව වියදම් පවත්වා ගෙන යාමට සහතික කරන්න.

දැනගන්න:			
සිංහල බසින් මුද්‍රණය කළ බසින්			
පිළිගැනීම, මේ මුද්‍රණය සහ ප්‍රකාශන පවත්වාගැනීම.			
ප්‍රතිකාර මැනීමට ගිය කාලය තුළ සෑදීමට සඳහා වියදම්			
ප්‍රතිකාර මැනීමට සඳහා මුද්‍රණය මැනීමට ගොස් ඇති මුදල්, සෞඛ්‍ය සේවාවන්, වෛද්‍ය සේවාවන්, වෛද්‍ය සේවාවන්, වෛද්‍ය සේවාවන්, වෛද්‍ය සේවාවන්			
වරදේ සෞඛ්‍ය සේවාවලට පැමිණීමට ගොස් ඇති කාලය			
ප්‍රතිකාර වියදම් - නොමැති නම්, සෞඛ්‍ය සේවාවන්, වෛද්‍ය සේවාවන්, වෛද්‍ය සේවාවන්, වෛද්‍ය සේවාවන්			
දෙපාර්තමේන්තු හා ප්‍රතිකර්ම මධ්‍යස්ථාන (බාර්නර්)			
වෙනත්			

වෙනත්

5.8 මේ සඳහා වේ පිටත වියදම් සඳහා බඩ ගෙවීම් :
 ප්‍රමාණයක් මුදලක් තිබුණද?
 1. බව (ගන්න 5.10) 2. නැත (ගන්න 5.9) හොඳින් (ගන්න 5.10)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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5.9 ප්‍රතිකාර සඳහා ප්‍රමාණයක් මුදලක් හොඳින් තිබුණද පිටත බඩ ගෙවීම් සඳහා කුමක් කළද?
 බලන්න පවත්වාගැනීම සඳහා පවත්වාගැනීම - මුද්‍රණ 4 - පවත්වාගැනීම සඳහා වියදම් කරන්න 12. පහළ පවුල සඳහා ගන්න 5.13

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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5.10 බඩ ගෙවීම් සඳහා නිවැරදි පුද්ගලික ගාස්තු දැන ගැනීමට හෝ වැඩිදුරටත් ගාස්තු දැන ගැනීමට හැකිද?
 1. බව 2. නැත
 හැකි නම් ගන්න 5.13

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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5.11 පුද්ගලික සහිත 2 ක් කාල කොටසක් මේ සඳහා හෝ කුමක් බඩ ගෙවීම් හෝ සෞඛ්‍ය සේවාවන් සඳහා වැඩිදුරටත් ගාස්තු දැන ගැනීමට හැකිද?
 හැකි නම් ගන්න 5.15
 1. බව 2. නැත.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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අනුචය:

<p>5.12 බඩ හෝ රෝගියා රෝගීවී සිටි කාලය තුළ කොරවන දිනක් වැඩියාවට යාමට හොඳාකිණිද? <u>ඔව් 5.15</u></p>			
<p>5.13 පුද්ගලයන් සති 2ක තුළ, ඔවුන් රෝගය හෝ සූරාලය බඩහෝ හෝ රෝගියාගේ ආරාධනා දෙකින් ක්‍රියාකාරීවීමට හෝ පාසල් යාමට කෙරෙහි බලපෑමක්? <u>නැතිවේ ඔව් 5.15</u> 1. ඔව් 2. නැත</p>			
<p>5.14 ඔවුන් රෝගය හෝ සූරාලය නිසා බඩ හෝ රෝගියාට ආරාධනා දෙකින් කාර්යක්ෂම යෙදීමට ආපසු යාමට හොඳාකිණි දින ගණන කොපමණද?</p>			
<p>5.15 බඩහෝ රෝගී කාලය තුළ බඩ සැලකීමට හෝ ප්‍රතිකාර ගැනීමට සලකා බැලීමට යාමට කොපමණ වේද? 1. ඔව් 2. නැත. <u>නැතිවේ ප්‍රශ්න කිරීමට පවතී</u></p>			
<p>5.16 නිවසට ප්‍රාදුර්වලයක් හෝ වැඩිපමණක් වී පුද්ගලයන් කැපවීමද? <u>නැතිවේ ඔව් 5.19</u> 1. ඔව් 2. නැත.</p>			
<p>5.17 පුද්ගලයන් සති 2ක තුළ බඩ/රෝගියාට සිදුවූ නිසා විය වී පුද්ගලයන් වැඩිපමණ කෙරෙහි බලපෑමක්? 1. ඔව් 2. නැත <u>නැතිවේ ප්‍රශ්න කිරීමට පවතී</u></p>			
<p>5.18 බඩ/රෝගියාට සිදුවූ නිසා වී පුද්ගලයන් දින කීපයක් වැඩිපමණ කොපමණද?</p>			
<p>5.19 බඩ/රෝගියාට සිදුවූ නිසා වී පුද්ගලයන් දෙකින් ක්‍රියාකාරී කිරීමට යෙදීමට ආපසු යාමට කෙරෙහි බලපෑමක්? 1. ඔව් 2. නැත</p>			
<p>5.20 බඩ/රෝගියාට සැලකීමට සිදුවූ නිසා වී පුද්ගලයන් දෙකින් කාර්යක්ෂම යෙදීමට ආපසු යාමට කොපමණ දින ගණන කොපමණද?</p>			

6 කොටස: සිත්ත කොටස

6.1 සෞඛ්‍යවේදීන් විසින් සිදුකරනු ලබන සෞඛ්‍ය විද්‍යාත්මක පර්යේෂණවලදී 6 වර්ගයේ කාරණා කුමනවාද? ඒවායේ වැදගත්කම සඳහා ප්‍රධාන හේතු සඳහන් කරන්න. (විදිහ වැඩිකරන්න)

ප්‍රතිචාරය සඳහා

1
2
3
4
5
6

6.2 මේ වගන්තියේ දී මෙහි සඳහන් කර ඇති සෞඛ්‍ය සේවාවන්ගේ වැදගත්කම සඳහා ප්‍රධාන හේතු සඳහන් කරන්න. (විදිහ වැඩිකරන්න)

0	1	1	

අංකය	විස්තරය	අංකය
1	ප්‍රධාන හේතු	12
2	විද්‍යාත්මක සේවාවන්	13
3	වෛද්‍ය සේවාවන්	14
4	සෞඛ්‍ය සේවාවන්	15
5	ප්‍රධාන හේතු	16
6	වෛද්‍ය සේවාවන්	9
7	වෛද්‍ය සේවාවන්	
8	වෛද්‍ය සේවාවන්	
9	වෛද්‍ය සේවාවන්	
10	වෛද්‍ය සේවාවන්	
11	වෛද්‍ය සේවාවන්	
12	වෛද්‍ය සේවාවන්	

6.3 ප්‍රධාන හේතු 5 ක් මගින් සෞඛ්‍ය සේවාවන්ගේ වැදගත්කම සඳහා ප්‍රධාන හේතු සඳහන් කරන්න. (විදිහ වැඩිකරන්න)

2

6.4 මේ වගන්තියේ දී මෙහි සඳහන් කර ඇති සෞඛ්‍ය සේවාවන්ගේ වැදගත්කම සඳහා ප්‍රධාන හේතු සඳහන් කරන්න. (විදිහ වැඩිකරන්න)

6.3	6.4	6.5

6.5 මේ වගන්තියේ දී මෙහි සඳහන් කර ඇති සෞඛ්‍ය සේවාවන්ගේ වැදගත්කම සඳහා ප්‍රධාන හේතු සඳහන් කරන්න. (විදිහ වැඩිකරන්න)

විදිහ වැඩිකරන්න - විදිහ වැඩිකරන්න 5

7.3 නිරීක්ෂණ කාලය
 නිරීක්ෂකයන්, සාමාන්‍ය වශයෙන් කොපමණ
 දැක්මක් ඇතිවේ?

	1	2	3
වි	1	1	1
උච්ච	2	2	2
සාමාන්‍ය (මධ්‍යම)	3	3	3
අධික/අධික	4	4	4
වෙනත්	5	5	5

7.4 මේ නිරීක්ෂණ වලට වැඩි වශයෙන් කොපමණ දේ
 (කොපමණ දේ වැඩි වශයෙන් වේ)

	7.4	7.5 (6)
වැඩි වශයෙන්	1	
නිරීක්ෂණය	2	
නිරීක්ෂණය කළේ කොපමණද?	3	
වෙනත්	4	
නොදන්නා	5	
වෙනත්	6	95/2

7.5 මේ නිරීක්ෂණ වලට වැඩි වශයෙන් කොපමණ දේ
 වැඩි වශයෙන් වේ.
 ප්‍රතිචාරය:-
 වැඩි වශයෙන් වේ 7.8

7.6 මේ නිරීක්ෂණ වලට වැඩි වශයෙන් කොපමණ දේ
 කොපමණ වේ?
 1. වැඩි 2. අධික

7.7 මේ නිරීක්ෂණ වලට වැඩි වශයෙන් කොපමණ දේ
 1. වැඩි 2. අධික.

7.8 මේ නිරීක්ෂණ වලට වැඩි වශයෙන් කොපමණ දේ
 වැඩි වශයෙන් වේ.

වැඩි වශයෙන් වේ	1
වැඩි වශයෙන් වේ (අධික)	2
වැඩි වශයෙන් වේ	3
වැඩි වශයෙන් වේ	4
වෙනත්	5

7.9 බඩ නවීනීකරණ කාර්යයේ සාරය දැක්වීමට?

පොදු මූලික දැක්වීම	1
පොදු දැක්වීම	2
විවේචනා	3

7.10 නිලධාරීන්ගේ වැඩ කිරීමේ කාර්යයන් පිළිබඳව පරීක්ෂණ කළද?

සමස්ත කාර්ය	1
ඉදිරිපත්	2
සලකා බැලීම	3
නිගමනය	4

7.11 ප්‍රතිඵලය කුමක්ද?
1. බර 2. නැත.

1

8 වන කොටස: ප්‍රායෝගික සහ විචල්‍ය

8.1 පහත සඳහා ප්‍රතිචාර සඳහා බඩ කොටසක් ලියන්න. විචල්‍ය කාර්යයන්ද? එක් එක් අංශයේ සඳහා බඩ දීමකට, සහතිකයට, මාසයකට හෝ වසරකට දැක්වෙන මුදල කොටසක් ලෙස දැක්වීමට හැකිය.

සාමාන්‍ය විචල්‍ය (සෘජු) ද

ප්‍රායෝගික	කාලය
4	දිනකට 1
පොදු මුදල් - 9	සතිකට 2
ප්‍රතිකර්ම - 99	මාසයකට 3
	වසරකට 4

බෙහෙවින්	20%
විවේචනා	
විකල්ප	
විකල්ප, ප්‍රකාශන... මුදල්	
විකල්ප	

විකල්පයන්	ඊ: කාලය	ඊ: කාලය
ප්‍රතිකර්ම	150/1	ඊට මුදල්
විකල්ප මුදල් / මුදල්	—	සමස්ත කාර්යයන්
විකල්පයන්/විකල්පයන් මුදල්	100/3	පොදු මුදල්/විකල්ප
විකල්පයන්/විකල්පයන්	1500/4	කාර්ය / විකල්ප
විකල්පයන්	10/1	මුදල් විකල්ප
විකල්පයන්	200/4	විකල්ප / විකල්ප / විකල්ප
විකල්පයන් කාර්යයන්	100/3	විකල්ප කාර්යයන්
විකල්පයන්	15/1	විකල්ප / විකල්පයන්
		විකල්පයන්

15

A3: Case study household expenditure diaries: an example

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	25/08	26/08	27/08	29/08	30/08	31/08	1/9
අයිතමයන්:	දින 1	දින 2	දින 3	දින 4	දින 5	දින 6	දින 7
හාල්	රු.33	රු.30.00	-	රු.37.50	රු.30.00	රු.24.00	රු.30.00
ඊටි	රු.52	-	-	-	-	-	-
පාන්	රු.8.00	රු.22.00	රු.12.00	රු.8.00	රු.24.00	රු.6.00	රු.4.00
බිත්තර	-	-	-	-	-	රු.24.00	-
පරිපූර්ණ	රු.5.00	රු.5.00	-	-	-	රු.5.00	-
අළුබඩු(අඟුණ)	රු.5.00	රු.5.00	-	රු.10.00	-	රු.8.00	රු.3.00
ලුණ	-	-	-	-	-	-	-
බර් / රසායන	-	-	-	රු.9.00	-	-	-
බිත්තර	-	රු.10.00	-	-	-	-	-
ඊටි	රු.8.00	රු.8.00	රු.16.00	රු.8.00	රු.8.00	රු.8.00	රු.8.00
කේසර	රු.2.00	රු.2.50	රු.1.00	රු.16.00	-	-	-
කෝපි	-	-	-	-	-	-	-
කිරි / කිරිපිටි	රු.52	-	-	-	-	රු.2.50	-
පුඬුරු	-	-	-	-	-	-	-
ඊටිබඩු	රු.10	-	-	රු.20.00	රු.10.00	-	රු.20.00
රසායන	-	රු.31.50	-	-	-	-	රු.19.00
පාන්	රු.13.00	-	-	රු.13.00	-	රු.2.00	-
කහර	-	-	-	රු.28.00	-	-	-
පාන්/පිස්/අඟුණ	රු.70	රු.50.00	-	-	රු.45	රු.110.00	රු.110.00
බිත්තර/බිත්තර	-	-	රු.10.00	-	-	රු.8.00	-
ඊටිබඩු	රු.20	-	-	-	-	-	-
පුඬුරු	-	රු.4.00	-	-	-	රු.6.50	-
පාන්	රු.25	රු.13.00	-	රු.13.00	-	-	-
ඊටි	-	-	-	-	-	-	-
රසායන	රු.16.50	-	-	-	-	-	-
පුඬුරු	-	-	-	-	-	-	-
ඊටිබඩු	-	-	-	-	-	-	-
ඊටිබඩු	රු.1.50	-	-	රු.1.50	-	රු.50	රු.1.50
ඊටිබඩු	රු.6.50	රු.6.50	රු.6.50	රු.6.50	රු.6.50	රු.6.50	රු.6.50
පුඬුරු	රු.18	රු.38.00	රු.40.50	රු.40.50	රු.40.50	රු.18.00	රු.40.50
පුඬුරු	-	-	-	-	-	-	-
පුඬුරු/පුඬුරු	-	-	-	-	-	-	-
පුඬුරු	-	-	-	-	-	-	-
බිත්තර	රු.6.00	රු.13.00	රු.10.00	රු.10.00	රු.10.00	රු.12.00	රු.9.00
පුඬුරු	-	-	-	-	-	-	-
පුඬුරු	රු.20	-	-	රු.10.00	රු.10.00	රු.10.00	රු.10.00
පුඬුරු	-	-	-	-	-	-	-
පුඬුරු	-	-	-	-	-	-	-

Appendix B: Summary of case study households

Household	Structure	Members (children ^a)	Workers	depend. ratio	Activities & work	Income per month	
						Rs. (US\$) ^c Per capita ^b	Total
Jayasinghe	3 generation (h's mother)	4 (1)	2	2	Jayasinghe cannot work due to illness; sister does domestic work; mother also does domestic work but part-time	777 (12)	2913
Valli	Nuclear	4 (1)	2	2	Daily labourers; but wife frequently cannot work due to arthritis; husband's work is insecure	1309 (20)	5234
Sumithra	Nuclear (+ grandson)	9 (2)	1	9	Bank worker; husband the only worker; 3 sons left school but no work	806 (12)	6733
Selvaraja	3 generation (w's mother)	6 (3)	1	6	Daily labourer; husband the only worker; low pay and insecure work	1132 (17)	5944
Nimal	Nuclear (kids left home)	2 (0)	0	-	No work; Nimal does not work due to illness; wife does not work; fully dependent on financial support from relatives	291 (4)	581
Geetha	3 generation (w's father)	4 (2)	1	4	Daily service work; husband helps in a kitchen, but low wages	695 (11)	2781
Renuka	Nuclear	6 (4)	1	6	Husband has a wholesale vegetable business; but heroin problem	2761 (42)	15875
Nishanthi	Nuclear (+ nephew)	5 (1)	2	2.5	Wife cooks food to sell; youngest son has a clerical job; husband cannot work due to kidney operation	1719 (26)	8165
Raja	Nuclear	4 (1)	3	1.3	Daily labourers; wife, husband and first son	2527 (39)	10108
Kumudu	3 generation (w's father)	7 (3)	2	3.5	Daily labourers; husband and father work; wife's brother gives some money	1294 (20)	8214
Amali	Nuclear	6 (4)	1	6	Daily labourer; husband the only worker; insecure work	823 (13)	3994
Mayori	Nuclear	4 (1)	3	1.3	Husband a labourer; wife is a teacher, and also gives tuition and sews; son has also found labouring job	1919 (30)	7675
Pushpa	Nuclear	4 (2)	2	2	Husband is hairdresser; wife cooks food at home to sell	2211 (34)	7738
Mary	Nuclear	4 (2)	2	2	Husband has a wholesale vegetable business; wife sews; also run a shop	3836 (59)	15344
Rani	3 generation (w's mother)	5 (2)	1	5	Semi-skilled labourer; husband has a permanent job at government Port Authority	2305 (35)	10948
Dilani	3 generation (w's mother)	6 (1)	3	2	Husband a government driver; eldest son works for airline company; second son an apprentice	3222 (50)	19332

a children under school age or at school

b number of household members is weighted for age (see Chapter 3)

c the exchange rate in 1998/9 was about Rs.65 = US\$1.00

Appendix C: Types of illness reported in household survey

Table C1: Main types of chronic condition reported in each community

Condition	SSP (%)	Obe (%)	Total (%)
no condition	892 (82.1)	963 (86.7)	1855 (84.4)
respiratory	79 (7.3)	44 (4.0)	123 (5.6)
high blood pressure	12 (1.1)	26 (2.3)	38 (1.7)
diabetes	11 (1.0)	22 (2.0)	33 (1.5)
arthritic / rheumatic	15 (1.4)	11 (1.0)	26 (1.2)
low blood pressure	10 (0.9)	8 (0.7)	18 (0.8)
headaches and eye problems	12 (1.1)	4 (0.4)	16 (0.7)
back problems	7 (0.6)	3 (0.3)	10 (0.5)
other	48 (4.4)	30 (2.7)	78 (3.6)
Total	1086 (100.0)	1111 (100.0)	2197 (100.0)

Table C2: Main types of acute condition reported in each community (2 week recall period)

Condition	SSP (%)	Obe (%)	Total (%)
no condition	941 (86.6)	990 (89.1)	1931 (87.9)
fever (often with flu, cold)	60 (5.5)	44 (4.0)	104 (4.7)
cold &/or cough	36 (3.3)	15 (1.4)	51 (2.3)
flu	7 (0.6)	27 (2.4)	34 (1.5)
headache	7 (0.6)	9 (0.8)	16 (0.7)
injury	7 (0.6)	6 (0.5)	13 (0.6)
stomach upset / diarrhoea	8 (0.7)	1 (0.1)	9 (0.4)
skin rash / boil	2 (0.2)	5 (0.5)	7 (0.3)
other	17 (1.6)	9 (0.8)	26 (1.2)
don't know	1 (0.1)	5 (0.5)	6 (0.3)
Total	1086 (100.0)	1111 (100.0)	2197 (100.0)

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