Chronic Poverty
Research Centre

Background Paper for the Chronic Poverty Report 2008-09

Health and Poverty Linkages:

Perspectives of the chronically poor

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What is Chronic Poverty?

The distinguishing feature of chronic poverty is extended duration in absolute poverty.

Therefore, chronically poor people always, or usually, live below a poverty line, which is normally defined in terms of a money indicator (e.g. consumption, income, etc.), but could also be defined in terms of wider or subjective aspects of deprivation.

This is different from the transitorily poor, who move in and out of poverty, or only occasionally fall below the poverty line.

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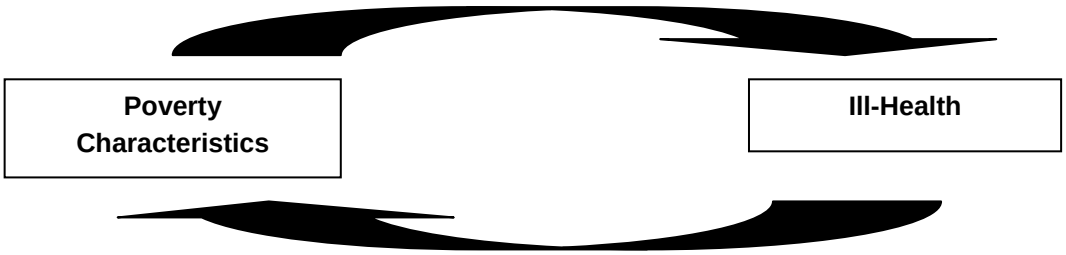
Introduction

The relationship between poverty and ill-health is not a simple one. It is multi-faceted and bidirectional. Ill-health can be a catalyst for poverty spirals and in turn poverty can create and perpetuate poor health status. The relationships also work positively. Good physical and mental health is essential for effective production, reproduction and citizenship, while productive livelihood strategies and risk management are critical to safeguarding individual and household health status (Harpham and Grant 2002, in Hulme and Lawson, forthcoming: 12).

Figure 0.1: Bi-directional relationship – a simple model



As with poverty, ill-health affects both the individual and household, and may have repercussions for the wider community too. Sudden or prolonged ill-health can precipitate families into an irretrievable downward spiral of welfare losses and even lead to the breakdown of the household as an economic unit (Pryer *et al*, 2003: 1). Poor households in developing countries are particularly vulnerable and problems of ill-health can be viewed as inherently part of the experience of poverty. This is exemplified by CPRC research in Uganda: 'I am poor because I have nothing in my house; no husband, no blanket, no cooking utensils. I have to beg for food. I can't pay fees for my child. Besides, I am always sick' (a Ugandan woman, in Lwanga-Ntale and McClean, 2003:184). This means that ill-health should not (only) be responded to in terms of its medical components but must be seen and therefore treated as part of the wider socio-economic and political response to poverty reduction.

This paper identifies the mediating factors that underpin a spiral or descent into chronic poverty and identifies points at which intervention will most likely make a difference.

1 What are the processes that link ill health to poverty?

Kyegombe (2003) identifies 5 main dimensions through which aspects of ill-health interact with other components of poverty: poor nutrition; poor shelter; poor working conditions; health care costs; erosive livelihood strategies. Hulme and Lawson (forthcoming: 8) add a sixth dimension: coping strategies. These linkages can be simply represented diagrammatically (see Figure 2).

Figure 1.1: Bidirectional relationship – a detailed model

2 Linking ill-health and chronic poverty

The poorest people in most societies almost always experience higher morbidity levels, die younger (on average) and experience higher levels of child and maternal mortality (Hulme and Lawson, forthcoming: 5). This reflects years of grinding poverty and associated long-term health problems.

'*The poverty ratchets model suggests that sickness impoverishes already poor households, which are plunged into a progressive spiral of declining health and economic status*' (Corbett, 1989:60). The low capabilities of poor individuals (low nutritional status, hazardous living and working conditions, inability to afford to adequately treat illnesses – see Figure 2) mean that ill-health shocks are more often repeated for poor individuals (Goudge and Govender, 2000) and they take longer to recover from. For example, the mean duration of illness for the poorest quartile of a sample population in Ethiopia was 1.6 times longer than that of the richest quartile (Asfaw, 2003). Poor people are often unable to insure their household economies against shocks, and so tend to experience temporary or long-term welfare losses (Pryer *et al*, 2003)

Rates of decline may affect the ability of a household or individual to 'bounce back' but this will depend in large measure on how capabilities are affected over time. Nussbaum (2000: 84-5) distinguishes between: 1) 'basic capabilities' generally innate from birth; 2) 'internal capabilities' which are developed states of the person; 3) 'combined capabilities' which require an appropriate political, economic and social environment for their exercise (in DeJong, 2003:1).

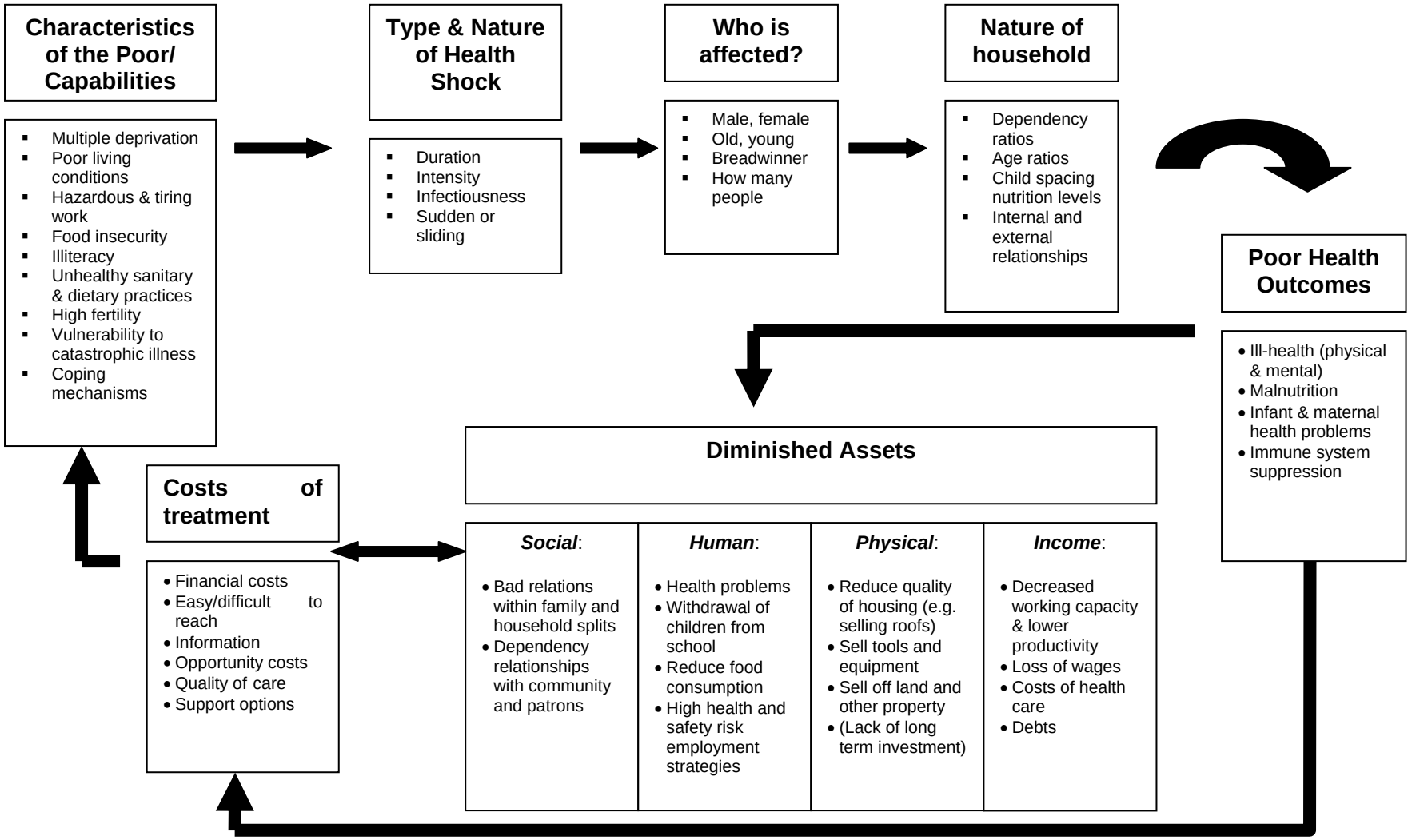
In health many capabilities are inter-dependent. Maternal malnutrition may contribute to child malnutrition for example. When malnutrition affects a young girl's development this may later lead to subsequent reproductive health problems which may later affect her own children (Dejong, 2003:10). Thus, over time vulnerability is increased. This may be experienced through reduced income and accumulation, increased expenditures and indebtedness, reduced child's education and increased malnutrition, as well as other long term impacts on social capital, such as stressed friendships and household relations. The psychological costs of poor health and poverty declines may be unquantifiable, but are intuitively significant (although this remains a poorly researched area).

Figure 3 illustrates how downward spirals affect individuals and/or households. The relationship between health and chronic poverty is mediated by the type and nature of the health shock(s), by who is affected, and by the nature of the household itself. It may be further exacerbated by the costs (both direct and indirect) of accessing care. The spiral depicted in Figure 3 may not be experienced as a continual decline, but there is an implied life course in which health issues continue to play a major part in the experience of poverty, unless the circle or spiral is interrupted. If we are able to identify the key or tipping points at which irreversibility kicks in (for example the points at which income or human capital is so damaged that recovery is very difficult)

it should enable finding entry points for breaking the spiral. The model allows us to identify appropriate entry points.

Figure 2.1: Linking ill- health and chronic poverty.

Sources: expanded from Wagstaff (2002) adapted in Hulme and Lawson (forthcoming)



2.1 Type, nature and timing of the health shock(s):

The nature, severity and duration of an episode of ill-health influence how assets are affected and whether this will lead to lasting morbidity, disability, incapacitation or death.

2.1.1 Prolonged illness

Chambers (1983) suggests that a prolonged illness can utterly impoverish people. If illness is lengthy the impoverishing effects of lost income (particularly of a principle earner) and asset depletion will interact with time to create a prolonged period of increasing vulnerability (Kyegombe, 2003: 9). This is the case for chronic illnesses, (such as asthma, dysentery, gastric conditions and rheumatism) and with regular, intermittent or seasonal illness. Rural people in Africa are more susceptible to malaria and gastrointestinal conditions during the rainy season. Coinciding with this increased seasonal vulnerability are seasonal opportunities (high labour demand for cultivation) and risks (food shortages, and reduced access to health facilities). An inability to work at this time of the year will result in significant income losses (Goudge and Govender, 2000 in Kyegombe, 2003: 11).

Occupation hazard is a major risk to prolonged ill-health among the poorest people working in the poorest conditions. Rickshaw pullers are poor, often malnourished, and live in unhealthy environments. Physical exhaustion and fatigue are simply part of the job – an outcome of hours, days and years of pulling heavy rickshaws (Box 1). Three-quarters of current and more than 90% of former rickshaw pullers interviewed by Begum and Sen experienced these debilitating problems (2003:13). The direct effect on income is palpable.

Box 2.1: Occupational hazards - Rickshaw pullers, Dhaka, Bangladesh.

Rickshaw pullers consider their occupation as largely responsible for their continued health vulnerability. They perceive 78% of acute illnesses, 67% of repeat illnesses, and 70% of major health hazards are directly or indirectly connected to rickshaw pulling.

While road accidents and injuries are straightforward risks, rickshaw pullers point to other possible job-related hazards such as eating unhygienic food from roadside stalls, eating irregularly, rickshaw pulling in adverse weather conditions like scorching heat or incessant rains, and, of course, physical exhaustion.

Chronic illnesses of rickshaw pullers are primarily linked to gastroenteric problems, aches and pains, and physical weakness. The latter two make up 43% of all chronic ailments and tend to worsen over time.

Source: Begum and Sen, 2003: 21

2.1.2 Acute illness

The stress which acute sickness brings to poor households is compounded when a disease is rare, more difficult to cure or diagnose (Ruthven and Kumar, 2003: 8).

When symptoms are less familiar, it can be difficult to get clear diagnosis and people may die 'mysteriously'. Treatment requires individuals placing faith in a service provider and backing this up financially (Box 2a). If illness continues, household decisions on health care expenditure may change as money for treatment runs out and faith in medicines or in the care received diminishes. When treatment is not completed the nature of the illness itself may change and become more intractable (Box 2b).

Box 2.2: Fear, diagnosis and treatment

a. Rashidun (35) desperate to save her husband, tried everything, only to watch him die slowly. He was sick for a year before his death, vomiting frequently with symptoms of flu and fever. Believing him cursed or 'pursued by a black shadow', Rashidun took him to two different Muslim priests in villages 20-30 km away. The couple made seven visits over nine months, spending a total of Rs.1500 (8% of income) over the period in travel and donations. This became difficult to sustain. While he felt somewhat better, the condition persisted and they turned to a nearer Western doctor. Over the next 2-3 months he met the doctor regularly and took medicines at a cost of Rs.9000 (51% of income) before eventually dying. Considering the cost differential between Western and local medicine, and in contexts where the outcome of Western treatment is uncertain, it is a huge risk to take.

b. Since Roshan's (36) only son was born ten years ago, his wife Mainum has had at least six miscarriages. Since 2000 she's got worse with regular severe bone pains. The diagnosis has been confusing. From the beginning she vomited blood, although the doctors suspected TB she tested negative. Other doctors suspected sciatica but treatment had no effect. When we escorted Mainum to a recommended doctor in Allahabad, tests suggested bone TB. The couple followed the course prescribed but stopped after a month when no visible results appeared. When we returned in February 2003 Mainum's condition had worsened and she is now barely able to move.

Source: Ruthven and Kumar, 2003: 7

When an illness is surrounded by fear and stigma the debilitating effects can be enormous and those affected face poverty effects not only related to the ill-health shock but also the associated discrimination and exclusion. HIV/AIDS is a clear example of this. Fear, stigma and shame limit people's ability to seek treatment and advice. This is particularly the case when already stigmatised groups are affected – prostitutes, men who have sex with men, drug users, etc.

The stigma and sensitivity associated with reproductive health problems is strong where pervasive 'cultures of silence' surround women's health (DeJong, 2003:6). Women's health problems are often poverty related but their impacts multiple when women's main cultural value is childbearing (Box 3).

Box 2.3: Stigma and sensitivity - Obstetric Fistule

During prolonged and obstructed labour a hole may develop between the vagina and bladder, or the rectum and the vagina, leaving the woman incontinent. Limited research and anecdotal evidence from health-care professionals indicates that girls and women at risk of obstetric fistulae are often malnourished, short in stature with small pelvises, come from extremely

poor families and have difficulty accessing transport and healthcare during an obstetric emergency. Typically the women experiencing this condition are young, having married early.

Once fistulae of either type occur, they are very difficult medically to repair. While the woman with obstetric fistulae escapes mortality she suffers from a severe, debilitating condition with severe socio-economic consequences often over a prolonged period if not her whole life.

The severe stigma attached to this condition means such women invariably face public shame, social exclusion and in many cases marital and family breakdown, and they lose their source of livelihoods. In almost every case the foetus dies as well, leaving the woman with the added stigma of childlessness if it is her first child. In Nigeria, studies have found that '[w]omen with VVF often work alone, eat alone, use their own plates and utensils to eat and are not allowed to cook for anyone else. In some cases they must live on the streets and beg.' (Bangser *et al*, 1999: 158).

Cited in DeJong, 2003: 14

Discrimination affects the quality of care and prioritisation of certain groups and conditions. Mental ill-health is an area of almost total neglect in developing countries – both in terms of professional assistance and poverty research. Treatment tends to fall into the private realm. In Sri Lanka, carer roles tend to be left to women within the household (Underhill, 2003:8).

Highly contagious conditions, such as TB and HIV/AIDS, may result in many household members becoming infected. Multiple infection increases the costs and losses experienced by a household. This is exacerbated in contexts of high household dependency ratios (Kyegombe, 2003) leaving dependents inadequately supported

2.2 Related to the nature of who is affected?

Poor households have to decide when and when not to spend money on treatment and this is often a question of deciding who does and does not warrant particular levels of expenditure (Ruthven and Kumar, 2003: 8). It may not be practical for example to keep an old man alive when there are young people who need to be fed and kept healthy (Box 4).

Box 2.4: Whose health matters?

Nachkau (37) is candid about the choice his family faced when his father became seriously ill at the age of 60 six years ago. Estimating a cost of Rs.4000 (12% of this household's income) for treatment with a Western doctor in Allahabad city, the family opted for the local doctor instead. Within a month of sickness, Nachkau's father died. This contrasted with their approach when one of the young wives in the family contracted TB a year earlier and who was cured with full Western treatment at a cost of Rs.5000.

Source: Ruthven and Kumar, 2003: 6

Household financial decisions may be influenced by the gender, age, and capabilities of the household member affected, as well as the resources available. These factors

are influenced by underlying social and economic values. For example, in the context of a polygamous household a woman who is unable to bear children may not be extended much assistance if she contracts a complex illness (ibid). There may be delays in treating household members who are not economically active.

Child illness is often perceived as more urgent than adult illness and care may be sought more promptly, regardless of the type of illness (Kabir *et al*, 2000, in Kyegombe, 2003). Adult illness in turn may be left until a critical point is reached, at which point treatment may have become more costly (Desmet *et al*, 1998, in Pryer *et al*, 2003:8). Pryer *et al* (2003) find that in Dhaka, Bangladesh, people are constantly weighing their need for income and work against their health, thereby delaying treatment and increasing the likelihood of suffering advanced disease or complications.

The effects of illness are also different depending on who is affected. Where a principle earner becomes incapacitated increased vulnerability spreads across the household and the poverty effects may be starker. Table 1 details differential household impacts for long-term and short-term illnesses. Impact is increased if more than one member of the household is affected.

Table 2.1: Matrix of Types of Illness and its effect on Different Household Members

Types of Illness	**Key Characteristics**	**Effects of illness on different household members**		
		Household head & major earner	Spouse of household head and secondary earner	Children and dependent
Short-term illness	- Suffering for a short time; - After recovering from disease the ill person can go back to participate in the labour market; - Suffererer needs rest and medicine for the duration of the episode rather than continuing medicine for a long time; - Treatment costs are incurred; - Less severe than chronic diseases; - Risk of chronic illness due to negligence.	- Expenditure for treatment; - Credit is likely to be taken under more urgent circumstances; - Loss of savings; - Loss of main income source; - Threat of loss of employment; - Effect on household decision making.	- Expenditure for treatment; - Credit taken under less urgent circumstances; - Loss of savings; - Loss of secondary income source; - Threat of loss of employment.	- Expenditure for treatment; - Credit taken under less urgent circumstances; - Loss of savings.
Chronic ill-	- Suffering for a	- Expenditure for	- Expenditure for	- Expenditure for

health	long time; - Affected person unable to participate in labour market; - Need continuous treatment for a long time; - Persons are often restricted in what they can do for along time, sometimes for life; - The treatment costs are higher than those incurred in the case of to short term illnesses.	treatment; - Unable to save money; - Loss of savings; - Credit is likely to be taken under urgent circumstances; - Loss of assets; - Expenditure for treatment; - Loss of human capital to invest; - Loss of income; - Increased adult dependency ratios; - Effect on household decision making; - Loss of social network.	treatment; - Unable to save money; - Loss of savings; - Credit taken under less urgent circumstances; - Loss of assets; - Loss of human capital to invest; - Loss of household manager; - Loss of income; - Increased adult dependency ratios; - Effect on implementing coping strategies.	treatment; - Unable to save money; - Loss of savings; - Credit taken under less urgent circumstances; - Loss of assets; - Women unable to participate in labour-markets because of care commitments.

Source: Adapted from Kabir (1998:130) in Kyegombe, 2003:18

2.3 Nature of the household

How well a shock is managed holds implications for the way in which ill-health is perpetuated and poverty impacts are felt. Households differ in their approach but also their ability to manage shocks. Household shock management will be mediated by factors such as dependency ratios, age ratios, child spacing, nutrition levels and relationships both within and outside the household.

High dependency levels place a greater strain on household ability to recover quickly from the effects of ill-health. If a household head dies, orphans, widows, older people, may be left ill-resourced to keep a household together and buoyant. With rising HIV/AIDS, orphan and grandparent headed households are becoming more common in many contexts. Orphans may be redistributed among relatives increasing the dependency within wider households. This is particularly acute where more than one member of a household has been affected by the health shock. In Rakai district, Uganda, there was an estimated 65,000 AIDS orphans in 1990, but this had decreased to around 50,000 in 1995 (Shepherd *et al*, 2003: 2). The psychological effects of household death are themselves manifold and will impact on household economic recovery.

Strong intra-household relationships lower stress and greater unity can assist in bouncing back from a severe shock. However, if households break down, individuals' ability to recover may be hampered with more severe poverty ratchet effects. Relationships with one's extended family and neighbours are also critical. Where relations are strong a household will have a wider support network to turn to in times of particular need. If they are weak, household are offered less assistance to help

them recover from a shock. Relationships both within and outside the household can weaken over time.

Poor nutrition greatly reduces the ability to bounce back. This may be affected by household age ratios. Short child spacing can have negative effects on maternal health, which in turn may affect household productivity and nutritional status. Similarly, when women and girls experience early childbirth their schooling may be affected. Maternal ill-health can transfer to infants and have long term health impacts on children. Early child health problems can reduce lifetime resiliency. Where a household has many young children and few income earners or productive assets the likelihood is that adults will delay treatment for themselves, with implications for both their immediate and long-term health.

2.4 Costs of treatment (direct and indirect) 1

Chronically poor people are often unable to access quality and timely care. Important child vaccinations and certain preventative services are available in many countries, but access to basic curative services is usually minimal (Hulme and Lawson, forthcoming). Health service expenditures are often skewed away from the needs of the poorest (Grant and Hulme, 2004) and can leave them dependent on the more accessible but lower quality and often expensive private service providers. These services are often delivered by poorly or un-trained 'doctors' or 'pharmacists' (ibid).

Evidence from eight countries shows that the poor pay proportionately more of their income on health care than do middle income or wealthier groups (Fabricant *et al*, 1999, in Goudge and Govender, 2000).When an illness is costly to treat, (expensive drugs, significant hospitalisation or recurrent treatment), the direct and indirect costs can become an irrecoverable drain on household income and assets (Kyegombe, 2003: 9). This will be exacerbated if funeral costs are also incurred. If households fall below a threshold from which a livelihood can be generated they may become impoverished. This scenario is particularly acute in the case of adult illness.

The poor are less likely to be formal sector workers with access to sickness benefits or formal or informal health insurance. Credit is often hard to obtain, certainly at sufficient levels, and this combination of factors can lead individuals and households into crippling indebtedness (Pryer, *et al*, 2003: 20). Poorer people often delay treatments (and therefore payment) for as long as possible or until a critical point is reached, at which point the problem may have developed and be harder to treat quickly (Box 5). In Dhaka the most common response to illness reported among the poor is 'wait and see' (ibid: 8).

[1] Direct costs are payments for medicines, travel, food expenses and unofficial medical charges. Indirect costs might include wages lost for example.

Box 2.5: Progressing illness - progressing costs

Dr Shamin Ali is a private doctor (not fully qualified) running a clinic in Koraon. Because of his 24 hour service, a credit facility and range of services offered, Dr Ali's clinic is extremely popular among the poor. He says most TB patients won't come to him until the disease is already at an advanced stage and estimates 90% of poor people discontinue treatment for TB once started, often starting and stopping treatment several times because it is expensive and because they feel better. If TB has reached an advanced stage the cost of its treatment increases from Rs.5000 (28% of average household annual income for our case studies) to Rs.15,000 (85%). If treatment has been aborted several times and the TB becomes resistant, the cost becomes exorbitant.

Source: Ruthven and Kumar, 2003: 7

Access is also mediated by broader social factors. Certain illnesses are not well understood or prioritised by the medical profession (e.g. mental health – Box 6) and certain groups are discriminated against (e.g. based on caste, age, gender, language, and race). These factors translate into care deficiencies and poor treatment by service providers. There is plenty of evidence that poor women seeking health care are often treated with disrespect and their needs are not fully taken into account. Unethical practices, involving not ensuring informed consent or even abuse, are particularly acute (Sen, Germain and Chen, 1994; Kabakian-Khasholian *et al* 2000; Cottingham and Myntti, 2002, all cited in Dejong, 2003:8). These factors may exacerbate internal household dynamics in which health care is already constrained by husbands refusing their wives financial support to reach the clinic.

Box 2.6: Mental health care deficiencies

Most governments freely admit that they are in no position to cope with the total volume of mentally ill people needing support. The admission of mentally ill people into hospitals for either short term or long stay treatment is often arbitrary, depending upon the proximity of the patient to the facility in question. However, admission into mental hospitals is often not a sensible solution. Most of the institutions in the countries we work in are not places that give confidence that they would be either therapeutic or even safe.

Source: Underhill 2003: 6

3 How people cope – Assets, resilience and increased vulnerability

People cope with illness and poverty in different ways. How they cope is largely influenced by the opportunities available to them by their capabilities and asset stores. This requires drawing from all forms of assets available – these may be income assets, physical assets (such as equipment, homes, land), human assets and social assets. However, over time these assets are reduced. If individuals or households are unable to rebuild their asset base they become increasingly vulnerable to destitution and are often forced to rely on extremely insecure or harmful strategies. This is exemplified by the detailed description of Maymana and Mofizuls' experience in Bangladesh (Box 7 and also Boxes 12 and 14, plus Figure 4). In the worse case scenario, the poverty-ill-health spiral results in poverty-related preventable death.

Box 3.1: Maymana and Mofizul – Coping with decline into chronic poverty

'In the early 1990s the household had five members – Maymana, her husband Hafeez and their three children (two girls and a boy). Hafeez had three rickshaws that he hired out on a daily basis and an acre of paddy land. The household had a reasonably secure income and an asset base to fall back on in hard times. In Maymana's words, life was 'balo' (alright /OK), although with two daughters approaching their teens there was the expense of dowry to think about and the youngest, Mofizul, had a growth on his back and was often unwell.

However, at this time Hafeez began to find his throat painful and coughed a lot. After getting medicines from a 'pharmacist' in the bazaar (almost certainly someone with no formal training) which made no difference, and visiting the nearby government-run health centre, where the staff asked for bribes but did not seem very interested, he went to a 'doctor' in a nearby town (again, it is possible that this man may not have been trained or was only partly trained). This doctor recommended special medicines that were expensive, and when they did not work referred him to a colleague in the nearest city, Mymensingh. This was expensive so a rickshaw had to be sold to meet the medical bills. The condition worsened and X-rays and other tests were required. Another rickshaw had to be sold. Weekly income plummeted with only one rickshaw to hire out, and the family had to reduce its consumption. Hafeez got sicker.

Later Hafeez was confined to the house and had lost a lot of weight. The rickshaws had all been sold off and the household was dependent on rice produced from its small plot of land and Maymana getting occasional work as a domestic help. Male members of the wider family, with some involvement from Hafeez, were able to arrange marriages so the girls were wed – much to Maymana's relief as with everything going wrong she had feared the girls might never reach that stage.

In 1998 Hafeez died shortly after a stay in hospital when specimens had been removed from his throat and sent to a pathologist in Dhaka (local key informants described the disease as throat cancer and they may be correct). Maymana was in despair with no husband, minimal income and a sickly child. But things got worse. Her father-in-law seized the household's agricultural plot and so she had to start borrowing, gleaning and begging for food. Fortunately her married daughters, wider family, neighbours and the mosque committee helped, and so she and Mofizul –now a household of two – survived. Although Mofizul was only 12 and often sick, he looked around for work and sometimes got casual employment at a local timber mill. His income helped, but at a daily rate of 10 taka (20 cents) it did not make a big difference.

Maymana and Mofizul survived, but they were not able to acquire or accumulate any significant financial, physical or natural capital. Their human capital remained at low levels, with no new skills acquired and their health often poor. As indicated below, their social capital

was of great importance for survival, but as she had angered her father-in-law and taken loans of grain and cash that are not being repaid, their social network may be less willing to support them in the future.'

Source: Hulme, 2003

Qualitative work in Dhaka illustrates a sequence of coping strategies employed by adults in response to work disabling illnesses. This begins with borrowing money, followed by diversifying income sources, women to going to work, expenditure reduction, use of savings, selling assets, merging households, moving families to rural areas and, finally, begging (Pryer *et al*, 2003). This sequence indicates a substantial decline in all forms of assets over time. Below, we examine the impact of declining assets with a view to identifying the tipping points at which spirals must be interrupted before decline becomes irreversible.

3.1 Declining assets - Income

Self-exploitative responses are often the only way for chronically poor people to cope with health shocks. Hopefully this ensures their survival, but they often result in a further erosion of income or income stability particularly as extra costs may be required to meet medical needs. Among the urban poor in Dhaka for example paying for treatment is the most reported cause of taking on debts (Pryer *et al*, 2003 – see also Box 8). This means diversifying or changing livelihood strategies to meet extra costs and involving family members, such as children or older people, who were not previously economically active. It may mean taking loans or mortgages, reducing savings and investments, and it may even reduce households to begging.

Box 3.2: How ill health affects the households of rickshaw pullers, Bangladesh

The average cost of treatment for an episode of illness is estimated to be Tk.263 for acute illness and Tk.5453 for major illness. A rickshaw puller has to stop work, on average, for 4 days per episode of acute illness, and for 44 days per episode of major illness. If this income loss is taken into consideration then aggregate costs for an episode of acute illness would be about Tk.863, equivalent to six days' income. For a major illness it would be close to Tk.12000, equivalent to 3 months' income.

Rickshaw pullers generally meet the treatment costs for acute illnesses from current household income. Only in 6% of cases are they forced to incur debt. As expected, the situation is different for a major illness or injury. To meet these costs, 30% of sample rickshaw pullers liquidated their savings, 16% disposed off assets, and 27% incurred debt. Thus, a major illness can act as a source of major resource depletion, indicating the significant possibility of long term adverse effects on household well-being.

Given the monthly savings potential of an average rickshaw puller household, a major sickness is able to wipe out two years of savings. But, more than half of pullers have no savings at all; one-fifth are unable to secure 3 meals a day; more than half have not been able to acquire any assets; half cannot generate any surplus from income; and a similar proportion has outstanding debt. Set against this, the average economic burden of ill-health is considerable.

Source: Begum and Sen 2003: 23-24

Wages may be lost if ill-health reduces capacity to work productively or if ill-health requires another household member to reduce income earning in order to provide care. In Bangladesh illness or incapacitation of an income earner is the most commonly reported reason for deterioration in the financial situation of a household (Salway *et al*, 1998, in Kyegombe, 2003). Among AIDS afflicted families in Rakai, Uganda, episodes of caring for sons and daughters dying of AIDS has meant using scarce cash resources to pay for medicines, and doing without basic necessities, since most households had little cash available. It has also meant reduced labour on the farm, and reduced crop harvests, which in turn produced less cash and food (Shepherd, *et al*, 2003: 4). As the main asset of most poor people is their body, they are much more dependent on their physical ability as a source of income (Goudge and Govender 2000).

3.2 Declining Assets – Physical assets

Health shocks also often require individuals and households divesting their physical assets. Equipment, tools, and possessions can be sold and houses mortgaged or let in times of dire need. In contexts where sick people are already living in poor conditions this can stress households to breaking point. If household goods are being sold, resources tend to be redirected to meet short-term consumption/survival needs to the detriment of longer term investments (such as productive assets, and education) with implications for a household's future.

These negative spirals are not confined to those that are already very poor. Prolonged illness can rapidly uncover household or individual vulnerabilities and their edge over poverty can be eroded. Physical assets provide a buffer during good times but can be quickly sold off or mortgaged. If illness is then prolonged, their ability to remain buoyant is weakened (Box 9). Movement out of poverty must be supported long enough to become established or it remains very fragile (Ruthven and Kumar, 2003).

Box 3.3: Poverty-ill-health spirals affect those previously doing well

Roshan's financial situation was healthy throughout the first year of our research. A skilled tailor with a regular shop in Koraon and a small family, he brought in about Rs.2000 a month. A steady daily income however was no match for the prolonged struggle of his wife's sickness and his edge in the labour market was rapidly eroded. Struggling with the expense of painkillers, Roshan defaulted on rent payments for his shop and was forced to close. The family's only buffer turned out to be Roshan's sewing machines, now locked up in his shop, mortgaged to the landlord. In spite of his 'upgraded' livelihood, Roshan's ability to deal with shocks proved as fragile as anyone's.

Source: Ruthven and Kumar, 2003: 10

Socio-cultural factors can cause physical asset losses. After the death of her husband a widow may lose household assets to in-laws. This is reported in many

contexts, It was the case for Maymana in Bangladesh (Box 7) and also seen in Rakai, Uganda, where AIDS widows have fallen victim to the Buganda tradition of women having access to resources only through their husbands (Box 10a). In Rakai, these physical losses hit hard, after heavy funeral expenses and in a context of high AIDS related mortality (Shepherd *et al*, 2003). Even if land is not sold off or seized, it may remain underutilised due to weakened capacity to farm (Box 10b). This directly causes impoverishment.

Box 3.4: AIDS induced poverty spirals

a. Some households had been reasonably prosperous before AIDS. Ndagire was widowed with five children after her wealthy businessman husband died of suspected AIDS in 1990. She lost most property to her husband's relatives and her co-wife's children, even though the co-wife had separated from the husband. Before his death the farm had operated with hired labour, and Ndagire had run a shop. She managed to retain access to 2 acres, but was not able to cultivate it all as she could not hire labour. She supplemented the food grown with beer selling, selling paraffin and salt and weaving mats for sale. Life was an uphill struggle. Credit to employ labour and expand sales would have helped.

b. Almost all households had land, and much of it – usually more than half, was not cultivated due to labour shortage, and the absence of cash with which to hire labour. This situation was particularly difficult for older people, who continued to make valiant efforts to make ends meet for themselves and whatever grandchildren they cared for. One '77' year old widower was brewing banana beer, and making bark cloth as well as farming one acre of his own plus whatever small parcels he could rent from people to support four grandchildren. Food was short, one meal a day was common, the household was miserable, there was not even a radio to listen to as the batteries had run out. He could not afford to buy the grandchildren clothes, but they bought their own by rearing and selling chickens.

Source: Shepherd et al, 2003:4

3.3 Declining Assets – Human assets

Children are often required to enter the workforce to help meet household consumption needs and treatment costs. Being removed from school following contributes to poverty being transmitted across generations, affecting the long-term productivity and earning potential of the children (Pryer, 1993; Kabir, 1998; Goudge and Govender, 2000 cited in Kyegombe, 2003).

Deterioration in personal health manifests in increasing weakness often due to poor nutrition but also stress and disability, and in the worse case scenario death is the ultimate destruction of human capabilities. The longer-term consequences of maternal death on the physical and psychological well-being of children and households are virtually unknown (Dejong, 2003:10). In the context of AIDS deaths, households are often stressed to breaking point. AIDS orphans are usually redistributed among relatives although sometimes form their own households (Shepherd *et al*, 2003). The increased numbers of dependents and sick people within the household is a strain and morale within families is often understandably low (Box 11).

Box 3.5: Stress and fear increase the impact of HIV/AIDS

Several households had only one remaining working age adult out of several (up to 8) siblings. In many there had been several deaths in the few years preceding the interviews in 1993. Several interviewees were ill. Most households were 'barely surviving'. In some cases, where sons had died, daughters-in-law had been welcomed to stay on and contribute labour into household economies where adult labour was increasingly the scarce resource. This reinforced the pre-existing feminisation of farm and household labour. Surviving grandparents missed the occasional injections of income from children who had migrated and remitted, or had non-farm occupations. A very few seemed able to resist the depression and resignation which often comes with chronic and fatal illnesses. People were perpetually worried about survival.

While many were traumatised, sometimes this took dramatic forms. One divorced man in his seventies had lost 10 of his children, and had developed a speech impairment as a result. His household was scattered, and there were few material links between him and his remaining children. A 16 year old grandson lived with him and supported him with purchases of food and materials for house reconstruction after a fire; the grandson was earning money from petty trading. Household land was weedy and uncultivated.

Source: Shepherd et al, 2003: 4

Disabling ill-health can also be severe, although this will depend on the nature of the disability and whether its effects are temporary or permanent (Kyegombe, 2003). Evans (1989) charts the negative effects that river blindness has on households in rural Guinea. It is shown that among young, developing households river blindness can lead to impoverishment and destitution, impacting on household composition, health and nutrition, the agricultural labour force, food sufficiency and ultimately to a household's viability (cited in Kyegombe, 2003). The wider exclusions faced by people with disabilities exacerbate the physical impacts of human asset impairment (Yeo, 2003).

3.4 Declining Assets – social assets

Support from local institutions (family, neighbours, wider community) is of fundamental importance to people in decline. In times of desperation individuals often survive by calling on wider family and community for help. This was an important survival strategy for Maymana and Mofizul (Box 12). However, as seen in this case, these options may fade over time as requests are made too often and debts are not repaid.

Box 3.6: Vulnerable to the good will of others

Neighbours allow Maymana and Mofizul to glean from their land and provide no interest loans of food and money. Despite her poverty, Maymana is engaged in reciprocal transactions and also makes small loans to neighbours when times are hard for them. The mosque committee also provides her with gifts at Eid. Islamic principles of charity and helping the poor are part of the social support network on which she can draw. When times are really hard Maymana begs people in the village and surrounding areas for food. She does not like doing this, however, as not only is it demeaning but it annoys the other people who live in her uncle's bari. Without the support of her daughters and sons-in-law Maymana would find it difficult to survive when times are hard.

Source: Hulme, 2003

When families break-down, destitution may result. It has been noted how dispersing children to wider family networks is a key coping strategy after AIDS deaths. If household relationships are not strong this safety net cannot provide required support and destitution may result for those left behind.

When the situation feels hopeless, households may resort to drastic measures. Where there is no social security, bonding or attaching oneself to influential patrons can become the only viable option – even if on very poor terms (Box 13).

Box 3.7: Entering debt bondage to meet health payments

Throughout the research year Rahathu was racked by the pain of his 3 year-old son who had gall stones. He was told the operation costs Rs.6000 (just over 100% of his annual income) and continually struggled for ways to raise this sum. He struggled equally to manage daily essentials such as fertiliser, kerosene and treatment for his sick wife. His situation was continually precarious and even after considerable effort he often appeared unable to secure the money required; when he did, he was unable to pay as agreed. In late 2000 he found a way to raise the money required: by contracting himself to a new land owner in a village 30 km away. A year after his son first experienced pain, Rahathu finally received a lump sum of Rs.4000 and the operation went ahead.

Rahathu had reverted from the position of a free wage labourer able to raise relatively good wages, to a harvah, as he had been five years earlier. He is now far from home, with a new landlord. Because he took a considerable advance (double the value usually offered to harvah labourers), his contract is on much worse terms than before. He is paying interest at 225%/year or 19%/month (Rs.4500) – the price of having the money upfront.

Source: Ruthven and Kumar, 2003: 10-12

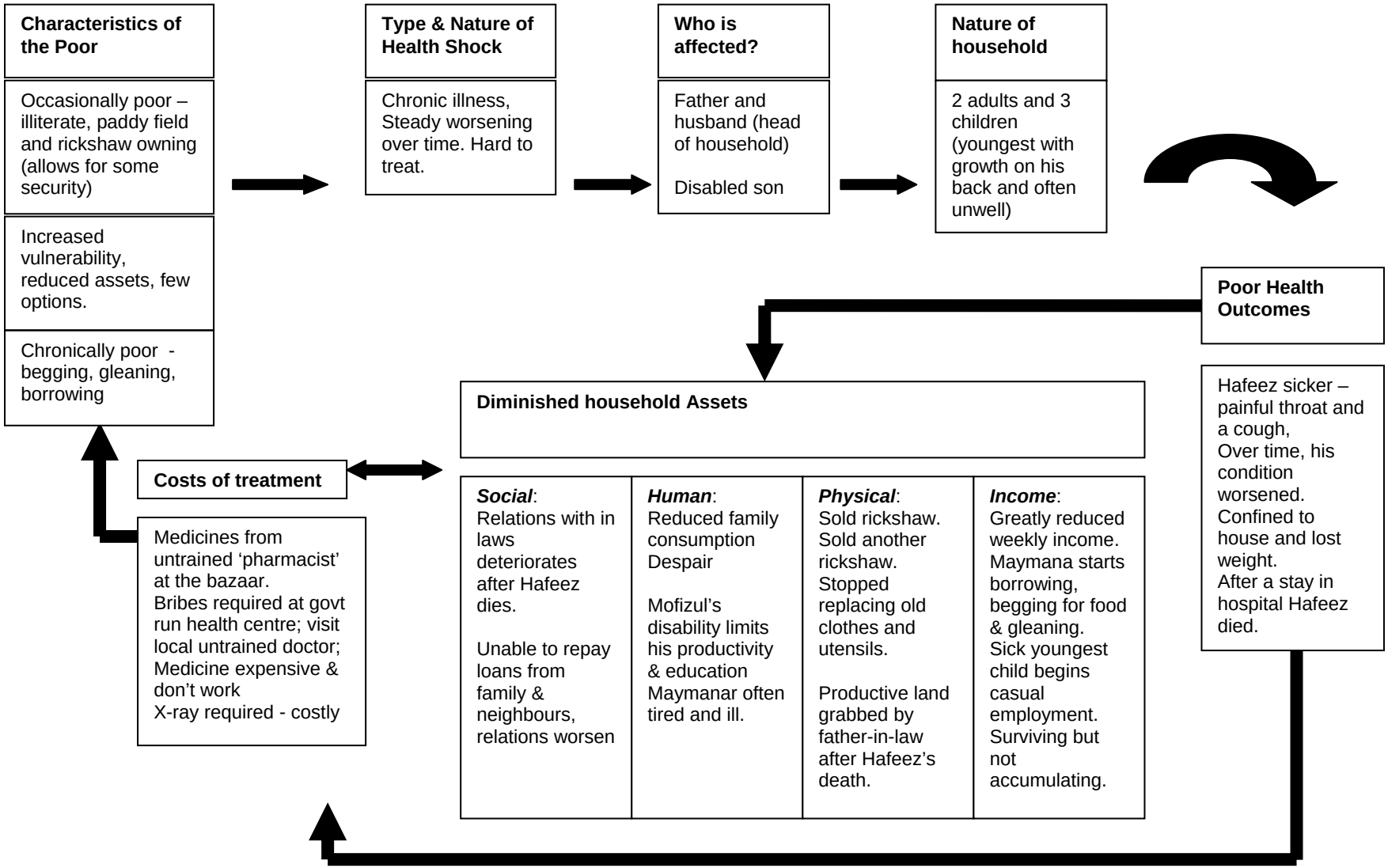
4 Identifying tipping points: where interventions can make a difference

This paper has provided examples of how ill-health and long-term poverty are intertwined. This is the result of decreasing capabilities and reducing assets during short or long-term spirals of decline. In the case of Maymana and Mofizul (Box 7) asset depletion was considerable and a major contributor to their spiral into deep poverty. Inadequate health services provided a backdrop to their experience, their only option expensive private services which bled them dry during Maymana's husband's decline. Care that he received did not improve his condition but did impoverish the family.

Inadequate public provision is not only the realm of the health sector. Related developmental sectors, such as education, social security and the productive sectors, are often not adequate to support households during severe health shocks. The legal system failed Maymana and she lost her land after her husband's death. As is common in rural Bangladesh, the shalish regards land as a resource that is controlled by men. A widow, and particularly an ageing and deaf widow with a disabled son, is not likely to acquire land in such a patriarchal setting (Hulme, 2003).

The education system similarly failed her and her son. Maymana is illiterate and unable to pursue higher paying alternative livelihoods. Although she is desperate to work, there are no opportunities for an illiterate, aging, deaf woman who is often sick and so she is forced to glean, borrow and beg. Mofizul needs assistance to develop his skills as, with a disability and frequent ill health, he will always be a prime target for retrenchment if the saw mill hits hard times. Removing discrimination against the disabled in Bangladesh's labour market is a task which has only recently come on the agenda of social activists (ibid). Maymana and Mofizul's story can be illustrated diagrammatically (Figure 4).

Figure 4.1: Descent into chronic poverty – health shocks and rising vulnerability within a household in Bangladesh.



Spirals of decline are not always obviously health related. However, once the processes that build up into an irrecoverable spiral are considered, ill-health very often plays a clear role. Table 2 outlines the specific points within the cases examined in this paper at which a breaking point or threshold has been reached. These are the points at which irreversibility kicked in (for example the points at which income or human capital was so damaged that recovery is very difficult).

It is notable that chronic illness in adults is worse than acute illness. This may reflect the fact that adult illnesses tend to be left alone until a crisis point is hit, by which point a previously easily treatable illness may have become more intractable. Childhood ill-health clearly has long term implications; the same is also true for maternal ill-health. These factors are worse in more vulnerable households – those with greater levels of poverty, large numbers of dependents, low numbers of income earners, and perhaps having been living within the spiral of chronic poverty for long periods of time.

Table 4.1: Identifying breaking points which link illhealth to *chronic* poverty

Who	**Nature of ill-health**	**BREAKING POINTS**			
		INCOME	**PHYSICAL**	**HUMAN**	**SOCIAL**
ADULT	Chronic	Miss productive opportunities (seasonal, wage employment etc). Income doesn't cover medical care costs over time Savings depleted over time Livelihood not enough to meet consumption needs Debt Can't pay school fees Begging and other detrimental coping strategies Costs of funerals	Selling key productive assets Homes mortgaged or sold Rents defaulted on Land seized Weakened capacity to use productive assets (e.g. land) fully Appalling living conditions	Disability of main income earner Death of spouse/main income earner Children taken out of school Poor nutrition Increased susceptibility to disease Mental ill-health and exhaustion Maternal death Ill-health transferred to infant by mother Disease intractable due to delays in treatment	Households breakdown as economic and support units Increased dependency –often on poor terms Relations with neighbours sour, wider family stop providing assistance Large numbers of orphans and orphan-headed households Household's headed by grandparents Older people unable to receive support from their adult children Exclusion of disabled people from socio-economic institutions

ADULT	Acute	Work days lost Income diverted for treatment		Vulnerability to catastrophic disease Appropriate medical care not available Disability caused by an accident	
CHILD	Chronic	Reduced productive activity		Misses school Longterm health impacts – weakened immune systems	
MORE THAN ONE HH MEMBER	Chronic	Extreme drain on resources Considerable reduction in income Cost of multiple funerals Dependency on child labour		Depression and fear More than one death Increased household vulnerability – child headed households, older person headed households.	

Identification of these points helps us to determine where there may be opportunities for preventative, curative and non-health based interventions to make a difference. By looking at these points from the perspective of the mediating factors (type of shock, who is affected, nature of household) it may be possible to determine also those interventions that must be done now (early infancy, childhood, maternal health) because they have immediate and/or devastating effects, and those that can wait till later because they are more long term processes that will take time to change.

5 Implementing programmes that break the link between ill health and chronic poverty?

This paper has mapped out the linkages between ill-health and chronic or long term poverty, drawing from perspectives of the poor. The good news is that advances in health will impact positively on other forms of deprivation and poverty reduction will benefit levels of health. The purpose of the paper is to uncover some of the underlying processes so that interventions can be targeted appropriately.

The paper does not provide policy detail but rather focuses on how planning interventions for breaking these linkages might be done. Clearly quick diagnosis and appropriate care are essential. However, ill-health is evidently more than its medical components alone and so successful policies and interventions will reflect the living and working conditions of the poor. Interventions are required to reduce the barriers to adequate food and asset building, alongside quality and timely health care.

Quality and timely health care provision is not simple and requires dealing with both socio-cultural dynamics as well as public expenditure priorities and in many cases public sector reforms, (see Grant and Hulme, 2004). The poorest people experience extreme difficulties in accessing appropriate care, with devastating impacts on individuals, households and whole communities. Prioritising health of poor and poorest in society is justifiable economically as well as ethically – a healthy population is more productive and stable.

Table 5.1: Tackling Chronic Poverty- Ill-Health Spirals

	ASSET DEPLETION			
	Income	**Physical**	**Human**	**Social**
Preventing descent into poverty	Reduce health care costs; Universal primary health care - direct transfers to households; cross subsidisation of schemes (e.g. profitable schemes targeted at adults being used to directly subsidise child health and maternal services); Competitive financial markets, especially for consumption credit.	Credit and insurance – lending money to cover the assets sold in a crisis; credit schemes that reach the poorest people	Reduce exposure to key shocks	Reduce stigma through publicising the causes of diseases – HIV/AIDS, reproductive health, mental illness, stress and depression. Raising awareness of AIDS is urgent in Asia – learn the lessons from Africa; adapting sexual behaviour and increase availability of condoms;
Addressing maintainers of poverty	Credit and insurance provision for poorest as well as poor people (subsidise insurance schemes for the poorest; community based insurance schemes; extending insurance into harder to reach areas and to harder to reach or excluded groups; what about life insurance too?) Cooperative funds to cover sickness benefits and funeral costs and other self help groups	Equitable asset distribution policies: e.g. women's land rights.	Nutrition (particularly maternal and child) agricultural strategies and food subsidy programmes	Addressing the social and institutional barriers to inclusion, e.g. alcoholism, mental health, stigmas, financing and service quality Encourage better understanding of poverty causes – encourage the necessary sympathy and support Train (and reward?) health staff in people skills
Facilitating escape from poverty	Investment in social protection measures (e.g. pensions: how big do they need to be? How universal in coverage?) Diversifying income sources – promoting business acumen and increasing earning opportunities and crucially the terms of employment/ market engagement		Education beyond primary – how much, what sort, for whom? Education for adults (e.g. accessible literacy programmes) Education for working children (e.g. cash for education)	Open training opportunities in the health service to people from variety of backgrounds (women, race, caste). This also helps in ensuring timely interventions, by bringing health providers closer to the people that need them.

Table 6.1 outlines some policies appropriate to reducing the links between chronic poverty and ill-health. The next task is to determine priorities. These will be different in different contexts. CPRC research indicates continued support for a number of well-recognised priorities for health services: a focus on foetal well-being and maternal health, vaccination, micronutrients, potable water, HIV/AIDS awareness and prevention, shifting public expenditure and services on health towards the poorest. It also indicates a number of potentially 'new' priority areas: mental health, curative

services for ‘breadwinners’ and regulation of predatory private sector health providers.

One of the objectives of a forthcoming DFID workshop on ‘Health and the Poorest’ (February 14 and 15, 2005) is to draw together policy conclusions from different contexts and to identify the health priorities for the poorest.

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