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Health, Health Care, Poverty and Well Being: An Overview

Abstract

The importance of the linkages between poverty and ill health has long been recognised. Despite this, much research on these issues fails to explore the linkages. Health specialists focus on the proximate determinants of health and disease with little attention to distal determinants (income poverty, inequality, vulnerability). Economists and social scientists focus on economic and social variables, often treating ill health as an idiosyncratic factor rather than a central analytical component. In this paper we review conceptualisations and empirical materials on poverty-ill health interactions, relating this to the current debates in the field of health and poverty, provide an overview of the papers in this collection and draw out a number of conclusions.

Key words: Poverty, health, well being, health care, ill-health, nutrition

I. INTRODUCTION

The importance of linkages between poverty and ill-health have long been recognised (see for example Engels, 1845). However, much research on these topics continues to treat them in isolation – the former being viewed in terms of slow rates of economic growth or lack of income and material assets while the latter falls into the domain of the life sciences (health and medicine). When they are related the primary analytical focus for social scientists has been on examining the relationship between income (or consumption) measures of poverty and key indicators of health status, such as mortality, morbidity and nutrition. This relatively narrow focus is now under pressure for (i) more multidimensional understandings of poverty (based on Sen's (1985; 1999) critique of utilitarian measures and promotion of the capability approach), and (ii) participatory understandings of poverty (often encouraged by the work of Chambers (2002) and participatory poverty assessments). From such perspectives, preventable deaths, ill-health and suffering are not merely outcomes of poverty but integral components of poverty itself.

Not surprisingly the Millennium Development Goals (MDGs), which are so central to contemporary policy and action to reduce poverty, place a considerable emphasis on improving health. Three of the eight goals (reducing infant mortality, reducing maternal mortality and tackling AIDS, malaria, TB and other diseases) directly focus on health.[1] Similarly, rights based approaches to development conceptualise life and health as a fundamental right by positing access to basic health services as something that should be guaranteed for all of humanity.

While broadening the analysis and measurement of poverty and well being to recognise the influence of health, and health care, is clearly progress such progress should not be exaggerated. The work of many health specialists (doctors, nutritionists, epidemiologists, medical researchers) still concentrates on the proximate determinants of health and disease susceptibility (i.e. genetic factors) and pays little attention to income poverty, social inequality, vulnerability and the distal determinants of health.[2] Conversely, in many economic and social studies health and ill health appear as an 'add on' or idiosyncratic factor, rather than a central analytical component. Interestingly, poor people do not separate out health from other aspects of poverty. As a

Ugandan woman reported, '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' (Lwanga-Ntale and McClean 2004:184).

In this special section we seek to explore in detail the linkages between health (and especially ill-health) and other aspects of poverty and examine the role that health services can play in poverty reduction. Our underlying premise is that health, or ill-health, is central to the understanding of income and capability poverty, while income and capability poverty is central to the understanding of health. This is a two way relationship. Millions of people are income poor because of health problems and lack of access to basic health services while income poverty means that millions of people suffer health problems that are easily preventable and cannot access health services (Chronic Poverty Research Centre 2004). In this introduction we identify and review the main frameworks that are being put forward for more effectively integrating analysis, policy and action on health, health care and poverty and introduce the later papers. While our introduction seeks to be comprehensive the papers in the collection focus on contributions by micro-economists seeking to deepen the understanding of health poverty interactions through empirical work.

A key historical moment when health was highlighted as being central to development, building stronger societies and improved quality of life, came in 1978 with the Alma Ata Declaration – an international conference on primary health care which expressed the need for urgent action by all governments, health and development workers and the world community to protect and promote the health of all the people of the world. Despite such apparent recognition, academic materials that make a serious attempt to investigate the interrelationship between health and other aspects of poverty remain relatively scarce. By providing robust empirical and econometric analyses of these important issues this collection of papers seeks to partially fill this significant gap in knowledge.

As an introduction to the special issue, this paper is structured as follows. Section two provides an outline of the interconnected nature of health and well-being. Section three reviews current thinking on health, well-being and basic health care services for the poor. Building on this,

section four explores how such issues might be analysed, through an overview of the concepts of health and well-being and, in particular, a review of the ways in which economists have approached such issues. Section five, introduce the papers within the series and is followed by a conclusion that highlights a number of key research issues.

II. THE INTERCONNECTED NATURE OF HEALTH, WELL-BEING AND POVERTY

Nussbaum (2000) argues that there is a cross-cultural consensus on a number of basic capabilities and central to her listing are life and health. While there are heated debates about what constitutes development or social progress, on the basis of available evidence, it is likely that most people, cultures and societies would probably agree with Nussbaum, that longer lives, the avoidance of preventable deaths, healthier lives and reduced mortality for their children are among the capabilities we all have reason to value (see Clark, 2002; Moore et al., 1998; Narayan et al., 2000; Wilson and Ramphele, 1989). Through a different set of arguments, Doyal and Gough (1991) identify 'health' as one of the two 'basic human needs' (along with autonomy).

In the post-world war 2 decades it appeared that this aspiration for better health would be automatically realised in most countries as people could expect to live longer and be healthier than their parents. However, since the 1980s and particularly over the 1990s trends have reversed in a significant number of countries and the assumption that aggregate health status will improve everywhere, but at different rates, appears invalid. While the HIV/AIDS pandemic is an important factor in understanding downturns in life expectancy, survival rates and morbidity, it is far from being the only factor. In Central Asia infant and child mortality rates are increasing; and particularly since the 1990's, in 22 sub-Saharan African countries under 5-mortaility has worsened; stunting is rising in many African countries and has improved little in South Asia despite economic growth (World Bank 2004: 134). In many African countries and the Russian Federation average life expectancy has dropped by several years over the last few decades. Explaining these reversals demands analyses that move well beyond health and demographic factors.

While it has long been known that people in poorer countries generally experience poorer health levels than people in richer countries it is also becoming clearer that within most societies health

status varies greatly. In particular, the poorest almost always experience higher morbidity levels, die younger (on average) and experience higher levels of child and maternal mortality. For example, in the Central African Republic, Bolivia and Cambodia the infant and under-5 mortality rate for the assets poorest quintile of the population is always more than twice that of the richest quintile (World Bank 2004:20). Horrifyingly, in Bolivia the children of the poorest quintile are four times more likely to die before the age of 5 than those of the wealthiest quintile (ibid). The health status variations within countries can be so great '…that the extent of deprivation for particular groups in very rich countries can be comparable to that in the so-called third world. For example, in the United States, African Americans as a group have no higher- indeed have a lower- chance of reaching advanced ages than do people born in … China or the Indian state of Kerala (or in Sri Lanka, Jamaica or Costa Rica)' (Sen 1999:21).

At both a macro level (cross-national and national) and micro level (individual, household, community) studies demonstrate that the causality between poverty and ill health is bi-directional. For example, Wagstaff (2002:97) shows that in a household where the head or main income earner is sick, this has a subsequent impact on the income and welfare of the household, sometimes to the extent of moving the household below the income poverty line. Furthermore ill health is associated with additional or increased health care costs. Conversely, income and capability poverty also cause ill health. Individuals living in low income countries tend to have worse health outcomes on average, than those living in higher income countries. For example, if we consider the global burden of disease in terms of Disability Life Adjusted Years (DALY's) Sub-Saharan Africa accounts for 22% of the world DALYs, although it has only 10% of the population, and India has seven times that of established market economies. In high income countries, only six children out of every 1,000 born die before their fifth birthday. In the developing world the figure is 88, and in the world's poorest countries the figure reaches 120 (ibid). At the micro level the detailed processes that make ill health both a cause and a consequence of ill health have been identified in qualitative studies. These include the shocks of terminal illness (Hulme 2004) and the gradual but continuous stresses of exploitative work that undermines health status and income earning capacity (Begum and Sen, 2004).

Such processes and interactions have been particularly accentuated in sub-Saharan Africa, where high prevalence levels of HIV/AIDS, have particularly debilitating effects on millions of families and their ability to accumulate assets, reduce vulnerability and/or escape poverty. HIV/AIDS, in particular, damages family coping mechanisms and as individuals in the most productive age range are most at risk, it is particularly harmful to the income generation potential of families. With an estimated 39.4 million people worldwide infected with HIV/ AIDS in 2004, 2.2 million, of whom are children under fifteen (UNAIDS, 2004), HIV/AIDS holds centre stage in contemporary debates and action about poverty and health status interlinkages for many reasons.

Of particular importance is the fact that it does not merely impact on present day lives and livelihoods but has effects on the well being and health of future generations. It can be transmitted inter-generationally (from mother to child) and creates an economic and social legacy (low rates of economic growth, asset depletion, weakened institutions) that limits the prospects of future generations (Barnett and Whiteside 2002). But, there are other problems that have similar implications for future generations and thus demand attention. Most obvious amongst these are poor nutrition (which limits lifecourse capabilities and income prospects and has implications for offspring capabilities and income prospects)[3]/lowered amounts spent on household food consumption to pay for drugs (Barnett and Whiteside 2002), but overall general lack of access to basic health services.[4] To break these intergenerational cycles of poverty and ill health means reducing the incidence of illness and removing the barriers that the poor face in obtaining access to food and to health services.

Increasing access to health services does not just mean eliminating or reducing user fees and costs as is often assumed. Accessibility through road networks and transport and the opportunity cost of seeking health care are often as equally important in influencing health seeking behaviour. Although increased health care availability through, for example, community based health insurance schemes can improve outreach, suppliers need to have the appropriate motives and resources, and services must be combined with health and hygiene education (Wagstaff 2004). Breaking the cycle of ill health and poverty requires a combination of policies including reducing income losses associated with ill health and reducing the direct and indirect costs incurred in accessing health services.

Kyegombe (2003) identifies five main dimensions through which aspects of health/ill health interact with other components of poverty, to which we add a sixth.

1. *Income poverty, nutrition and health:* income and asset poverty raise the probability of poor nutrition and associated ill health; poor nutrition, immune system suppression and reduced ability to fight disease lower productivity and income (Thomas, Strauss and Henriques 1990, Bloom and Lucas 1999) and, ill health raises the requirement for and reduces the effective utilisation of food thus further lowering productivity and/or increasing expenditure on food (Osmani 2000:281, Strauss 1986). Such effects can also be inter-generational, with for example sickly and malnourished babies developing into stunted and unhealthy women who in turn produce weak and sickly babies (Bevan, 2004).
2. *Shelter and health:* income and asset poor households generally have poor quality housing, water and sanitation which increases their morbidity. Particular problems are diarrhoeal diseases (faeces, dirty water) and respiratory diseases (cooking fires and lack of ventilation). Crowded rooms increase the likelihood of diseases being spread throughout a household. Conversely, households with sickly people have to reduce their expenditure, reduce the quality of their shelter (e.g. sell off roofing iron) or move to poorer accommodation.
3. *Work environments and health:* income and asset poor households have to take work where they can find it and often this means next to roadsides, in unventilated factories, with hazardous machinery or chemicals and without health and safety protection, not to mention prostitution (Barnett and Blaikie 1992). This raises morbidity and mortality probabilities. Conversely, work related accidents and ill health reduce productivity and income (Strauss 1992).
4. *Income poverty and health care costs:* income and asset poverty means that the poor are the least able to purchase good quality, formal, health services (Asfew 2005).[5] Associated with this, the poor generally have lower levels of education and their social networks cannot provide high levels of 'information' about the quality of health services. As a result, the 'value for money' of the health services they acquire is often low. This

means that they experience more ill health, thus further lowering their income and requiring that they sell off productive assets (Parker and Kozel 2004, Lawson this special section).[6]

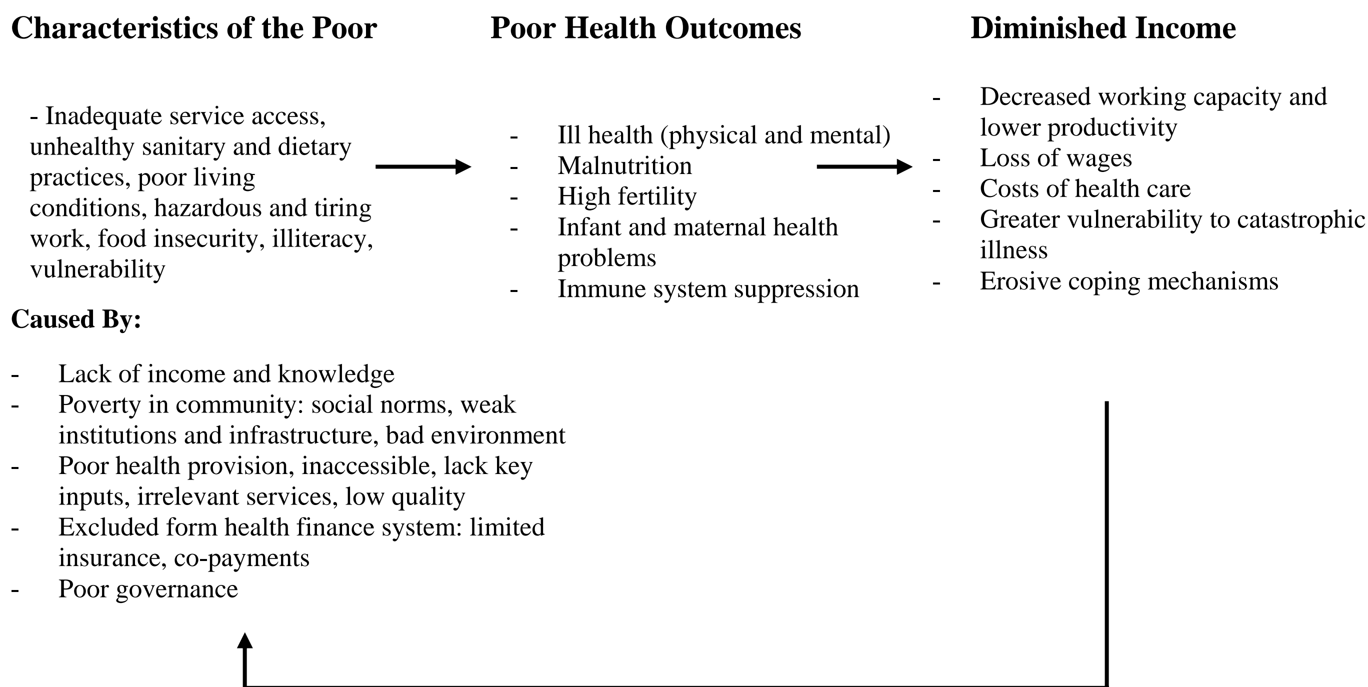
As a result of health care expenditure inequalities and the poor'r relatively inequitable access acquiring private medical insurance or accessing state sponsored insurance is one method through which individuals can protect themselves from health shocks, however personal insurance is often limited by insufficient information and providers (Mexican Commission on Macroeconomics and Health 2005). This combined with state sponsored insurance often restricted to formal sectors of the economy mean there is a need for community based…..Evidence also suggests that informal markets and self insurance are not enough to protect the poor (ibid :21)

5. *Ill health and erosive livelihood strategies:* ill health often leads to the pursuit of strategies that deplete assets (withdrawal of children from school, sale of land) or increase vulnerability (taking hazardous or degenerative jobs, moving into sex work or taking on unserviceable debts). However, this can often be part of a sequence of suffering recurrent and composite shocks and personal tragedies (Bird and Shinyekwa, 2003).
6. *Coping with vulnerability to ill health:* individuals and households who expect to experience high levels of ill health and/or mortality may respond by not pursuing long-term investments (e.g. orchards or irrigation, or accumulation, care and husbandry of livestock – Barnett and Whiteside 2002 refering to the impact of AIDS) or savings.[7]
7. *Poverty and social behaviour:* human poverty and deprivation can encourage behaviour that has the potential to undermine physical – if not mental – health. Notable examples include the consumption of tobacco, alcohol and other elicit substances (see Clark, 2002; 2005; Wilson and Ramphele, 1989). There are also well-known links between poverty and violence (in and outside the home), not to mention other forms of abuse (Bevan 2004).

The interactions of the factors discussed above are summarised in Figure 1. Poverty and ill health interact creating a basis for vicious cycles in which households gradually slide (through stresses or repeated minor shocks) or rapidly fall (through catastrophic shocks) into declining health

status, lowering incomes and assets, chronic poverty and, possibly, destitution or premature death. These interactions must be understood through a dynamic analysis. A health 'shock' does not simply impact on individual and household health status and/or household income or assets in the short terms. It can reshape the many capabilities of household members for the rest of their lives and may impact on future generations (both born and unborn).

Figure 1: Health and Poverty Interactions



(Adapted from Wagstaff 2002).

III. CURRENT THINKING OF HEALTH, WELL-BEING AND POOR PEOPLE'S ACCESS TO BASIC HEALTH CARE

It has long been accepted that good health is a fundamental component of well being and that improved health contributes to economic growth (World Bank 1993:17). As the World Health Report expresses it, 'Improvements in health are important in their own right, but better health is also a prerequisite and a major contributor to economic growth and social cohesion' (WHO 2003:27). Consequently, the Millennium Development Goals place health at the heart of development. Although the MDGs represent an excellent opportunity for promoting health

outcomes for poor people, it seems certain they will not be met in many countries nor will they be met globally. For example, if progress continues at current rates, sub-Saharan Africa will not reach income poverty reduction and child mortality goals, until 2147 and 2165, respectively (UNDP 2003). More fundamentally the current MDGs are a product of political processes and, from a technical perspective, are an imperfect instrument (WHO 2003:32). It is vital that MDGs acquire national identities and ownership, and that a more comprehensive set of health goals are prepared to match country circumstances. It seems unlikely that a primary focus on the achievement of a small number of laudable goals can create a basis for the evolution of a sustainable health system. Fortunately, a recent *World Development Report* (World Bank 2004) moves the focus on somewhat.

The WDR 2004 in particular, highlights a number of key issues in health service delivery for the poor. Not only are the sick likely to be pushed (further) into income poverty (Asfay, this volume), because of ill health, they are also likely to face problems of accessing health care with formal health insurance schemes often working against the sick, because of asymmetries of information. As a result, the poor seldom enrol in health insurance schemes, which often leaves only the option of paying health providers directly. Despite attempts to sometimes offset the costs by waiver schemes, in practice such exemptions often benefit the near poor but not the poor (Gilson 1997). The WDR 2004 even suggests that in Vietnam, health expenditure is estimated to have pushed almost 3 million Vietnamese into income poverty in 1998 (WDR 2004:135). It is evident that purchasing health care can seriously undermine the future opportunities of the poor and poorest!

The recent experience in many developing countries reveals similar trends in trying to increase the efficiency and targeting of health care delivery to the poor. For example, countries experiencing a deficiency in the amount of health care available to the poor, combated this by opening up health markets, through a combination of private, NGO and public delivery. In many instances, this led to wide disparities in the quality of care available and this resulted in the setting up of regulatory bodies. A series of bureaucratic failures combined with failed insurance markets has often followed, leading to free public services being offered (through the elimination of user fees or establishing 'free public' hospitals). Such reforms commonly benefit the urban

poor and non-poor but do not reach the poor majority living in rural areas. [see Jutting in this section)

A variety of other mechanisms have been developed to try to improve the access of poor people to basic health services. These include direct transfer payments to households, cross subsidisation of schemes (for example, profitable schemes targeted at adults being used to directly subsidise child health and maternal services), and self help groups within communities. Progressive taxation systems are also another option, although as these are often difficult to implement in developing countries an alternative is to subsidise insurance, on an income related sliding scale (World Bank 2004:146).

While the poor face great difficulties in accessing health services the situation is even worse for the poorest[8] (Grant and Hulme 2004). In many countries they can access vaccinations for children (and this must remain a priority everywhere) and some preventative services. However, their access to basic curative services is usually minimal. They are socially excluded, or are too far away from, public services; NGOs find it hard to reach the poorest despite their rhetoric; and private services are either too expensive or are delivered by poorly trained or untrained 'doctors' and 'pharmacists' (ibid). There are only a small number of 'success stories' in delivering health services to the poorest. These include Malaysia, one of the few countries in which the share of public expenditure on health is skewed towards the poorest (ibid), the 'contracting out' of health services in Cambodia and insurance schemes in Thailand and Indonesia which helped reduce out of pocket spending and extended the reach of safety nets among the poor (World Bank 2004:134). Some community based insurance schemes have managed to extend services to the poor (Jutting et al and Osei – both in this volume), but often they do not reach the poorest.

IV. HEALTH AND WELL-BEING

Conceptualising Health and Well Being

Until the last decade or so development studies has viewed ill-health largely as an outcome of income poverty rather than as an integral component of multidimensional poverty. However, the work of Sen (1984; 1990) and Nussbaum (1995; 2000) has led many researchers to move beyond 'poverty lines' and to examine the function(ing)s (beings and doings) and capabilities (opportunities to function) that constitute a good form of life. Central to an individual's capabilities are life and health (Nussbaum 2000). People can only achieve the beings and doings that they value if they are alive (i.e. able to avoid preventable death) and have a health status that permits the performance of valued beings and doings.

Importantly, capabilities are not merely about 'basic capabilities', innate since birth, or 'internal capabilities', which are post-birth developed states of a person (Nussbaum 2000:84-5). They are also about 'combined capabilities... which require an appropriate political, economic and social environment for their exercise' (ibid) or, as Sen (2000:39) expresses it, the 'social arrangements' that society makes for 'education, health and so on' which influence an individual's freedom to live better.[9] While such views are distinct from rights based approaches to development and poverty reduction (see next paragraph) they highlight the central role of public action, by states and citizen associations, in ensuring the good health and well being of all individuals.

Proponents of human rights based approaches to health and poverty acknowledge the contribution of Sen's work but move beyond it to a much more radical agenda, calling for a paradigm shift. Their field may be 'in its infancy' but they challenge researchers to move beyond being 'seminar room warriors' and engage in 'pragmatic solidarity' with the sick and poor (Farmer, 2005: 220-221). In a world that has the resources (material and knowledge) to provide basic health care to all then the obscenely unequal distribution of health services in the contemporary world is not a social problem but a human rights violation. Farmer pleads that the 'structural violence' underpinning these violations 'means we need new programs in addition to the traditional ventures of a university or research centre (the journals, books, articles, courses, conferences, research' (ibid: 239). Research must become cross disciplinary – from social

anthropology to molecular epistemology; must forge close links with practice, and especially service delivery, through new forms of collaboration; and must actively pursue and promote social justice. For most social science and health researchers this may be not so much a paradigm shift as a revolution, but it already has high powered supporters – from Sen (2005) to Sachs (2005) – acclaiming it.

More modest conceptual advances are also helping to focus attention on the role of health and ill-health in the analysis of well being and poverty. While less theoretically elaborated than Sen or Farmer's ideas, livelihood frameworks (Ellis 2000; Scoones 1998) posit health as a component of human capital that is both a determinant and outcome of poverty. Good physical and mental health are essential for production, reproduction and effective citizenship while livelihood strategies (allocation of resources, expenditure on food and health services, choice of working environment and employment etc.) and vulnerability shape individual and household health status (Harpham and Grant 2002). The increasing use of livelihoods frameworks in both academic and policy related work has fostered a greater analytical focus on health and well being, and ill health and ill being, as integral components of the processes of improvement or impoverishment. These frameworks examine the incidence and consequences of health/ill health and the economic, social, political and environmental factors that reduce or raise access to goods and services that facilitate well being.

While the capabilities and livelihoods approaches promote a more holistic understanding of health and well being there is an important lacunae in the literature on health and poverty in developing countries. This relates to mental health and we must confess that in this collection we are unable to take this issue forward. The bulk of work on health and poverty in poorer countries is on physical aspects of health and ill health and relatively little is known about the ways in which mental health problems and 'social' ailments, particularly stress, can be understood as causes or consequences of poverty. This is primarily because such health impairments may not be immediately obvious upon meeting someone, such people are often excluded from survey, and in general, people will not define themselves as disabled to outside researchers unless there is some advantage in doing so (Yeo and Moore 2003: 579). Despite this however, most field researchers who have worked on health or poverty commonly report

incidents of encountering people with self-evident or suspected mental health problems and cross-national surveys have been able to show that common mental disorders are about twice as frequent among the poor as among the rich in counties such as Brazil, Chile, India and Zimbabwe (Patel et al., 1999).[10]

However, the difficulties and costliness of diagnosis – allied to the complexities and costs of treatment, the fact that most developing country governments allocate minimal resources and personnel to this issue and the stigma associated with mental health (and also learning disabilities). For example, mental and behavioural disorders are estimated to account for 12% of the global burden of disease, and estimated to rise to 15% by 2020, yet the mental health budgets of the majority of countries constitute less than 1% of their total health expenditures The relationship between disease burden and disease spending is clearly disproportionate. More than 40% of countries have no mental health policy and over 30% have no mental heath programme. Over 90% of countries have no mental health policy that includes children and adolescents. (WHO 2001).

All this means that it remains a vast gap in the literature. There are competing ideas about the relative significance of mental health in poorer societies – ranging from the alarmist argument that mental health problems are enormous because of the stress that poverty imposes on poor people and the rapid social transformations that are widening inequalities, to the complacent case, that poor people have psychological means of coping with deprivation that keep them 'happy'. In the absence of an empirical base all we can do is point to the pressing need for serious research on the linkages between mental health and poverty in the developing world.

The Economic Understanding of Health and Well Being

The economic analysis of health and well-being has tended to focus on health and health expenditure as an input or means of achieving economic growth through its productivity effects. From such a perspective there is much evidence showing that a healthy population is an engine for economic growth, with health and human development being a major cornerstone of economic development at a macro level (Ramirez et al. 1998, Barro and Sala-I-Martin 1995) and

essential to ensure people can achieve a more economically productive life, at a micro level (Bloom and Canning 2001: 8).[11] The classical view of the relationship between health and economic development, that wealth leads to health with improving health an output of the growth process, is supported by a broad correlation between average GDP and life expectancy, at the national level. However, the causal link running from wealth to health cannot be fully explained (Bloom and Canning 2001: 8).[12] Health contributes directly to economic growth in four main ways: it reduces production losses caused by worker illness; it permits the use of natural resources that has been totally or nearly inaccessible because of disease; it increases the enrolment of children in school and makes them better able to learn; and it frees for alternative uses resources that would otherwise have to be spent on treating illnesses (World Bank 1993:17).

From a microeconomic perspective an individual's health status may be considered important not only because of the direct utility health can provide but because of the productivity losses and large indirect costs, caused by ill-health, which places demands on already stretched health systems and family support networks (Strauss and Thomas 1998). Furthermore, such effects can have a huge impact on the income and asset status of households and therefore influence income poverty measures.

One main method of analysing such intricacies between heath and well-being/poverty, at the micro level, is to use household data. However, this immediately raises several obstacles in the desire to add value to our understanding, especially in the context of developing countries where reliable household data, which is nationally representative, is quite rare. Not only are we dependent upon reliable cross section data, but panel data is also required if we are to understand the dynamics associated with health and well-being. Such data is even more scarce.

Despite this there are an increasing number of developing countries for which relatively rich quantitative household data is becoming available. For example, Uganda has three reliable national household surveys, and several waves of panel data, thus allowing one paper in this series to investigate the impact of health on income poverty dynamics. Other usable household datasets are available in countries such as Ethiopia and Bangladesh which are used in this series of papers.

At a micro level one of the simplest methods of analysing the impact of incomes and poverty on health status is through a household production framework which can formally be represented via an algebraic statement, whereby the household or individual maximises utility subject to a set of constraints. Such an approach allows us to emphasise the process of selecting exogenous right hand side variables for the health reduced form. Reduced form demand functions are estimated more often than any other type of function (Behrman and Oliver, 2000) and in most studies result from a household constrained maximisation of their welfare and underlying structural parameters. From this, estimates can be made of the impact of explanatory variables on a particular good, for example, to reveal what impact low incomes or poverty might have on the health status of an individual.[13]

There is a huge literature on the socio economic impact of factors associated with health and health care demand. Most pertinently, recent developing country evidence shows low incomes, in particular, to have a large impact on health status and health care demand (Hutchinson 2001; Li 1996). All of this is in line with the 'wealthier are healthier' hypothesis proposed by Pritchett and Summers (1996).

Finally, in this section, mention must be made of the 'economic geography' of health. Sachs (1999), drawing on ideas from much earlier work that viewed health as being closely related to geographical zones, has argued that biological processes in the tropics (particularly the increased speed at which bacteria and insects can reproduce and the distribution of vectors such as the *anopheles* mosquito and tsetse fly) expose their populations to higher levels of ill health than in more temperate climates. Hence, a partial explanation is provided for the concentration of poor countries and poor people in the tropics by higher levels of illness and lower levels of productivity. To overcome such a situation the contemporary bias against medical and health research expenditure on the health problems of poorer people in the tropics must be tackled (ibid). This is an important argument – and has been used to bolster the case for investment in 'cures' for tropical diseases as a global public good – but, it is not an issue pursued in this collection.

V. OVERVIEW OF THE PAPERS

The papers in this collection have a largely microeconomic focus, adopting micro-econometric approaches to understand the issues of poverty and well-being, health status and health care demand, in several developing countries, but with a particular focus on Africa where income poverty is so deep, health problems so entrenched and services to the poor so inadequate. This is not to suggest that analysis should exclusively focus on micro-econometric methods, but it does seek to seize the opportunity to analyse household datasets, which have only recently become available.

The initial papers in the collection look at the impact of poverty on health status and health care demand and provide insights regarding how HIV/AIDS may influence health care demand. Poverty and health dynamics are then examined through an analysis of the intergenerational transmission of health, and an investigation as to how ill health affects poverty persistence and transmissions (Sen *et al.* this volume). In the light of such evidence the papers that follow subsequently take stock of the broader macroeconomic expenditure issues of planning of health and health care delivery. To conclude, the series provides some examples of community based health insurance schemes and tests if they are successful in reaching the poor and poorest. A brief overview of each of these papers now follows.

A collection on health and poverty would be incomplete, if HIV/AIDS was not part of its focus. The third paper in the series by Booysen et al. analyses differences in the choice of health care facility of individuals in HIV/AIDS-affected households in the Free State Province of South Africa. It is found that illness is more prevalent and severe amongst poorer affected households (Barnett and Blaikie 1992) and that anti-retroviral treatment in public health care facilities in South Africa will be crucial if infected persons from poor households are to access treatment both to improve their health status and reduce the probability of their households becoming poor.

The fourth paper in the series (Sen and Begum) investigates the importance of intergenerational transmission mechanisms of poverty in Bangladesh. In particular, the paper examines women's health and tests whether a mother's nutritional status is systematically linked with a child's

nutritional status, and if so what factors are associated with this. The findings suggest maternal malnutrition to be a significant causal factor for child malnutrition and, through this, a contributor to poverty transmission across generations.

The fifth paper by Lawson moves beyond cross section household data and explores issues of poverty dynamics. Lawson draws on Ugandan panel data in order to investigate the link between chronic and transient income poverty and ill health. His findings suggest that despite Uganda's progress during the 1990s in reducing monetary based poverty, a number of households remain persistently poor and some households moved back into poverty. In particular, households headed by ill individuals are found to be strongly associated with moving into poverty (Lawson, this volume), have larger reductions in their asset base and remain in agricultural own account activities (subsistance agriculture). Other factors, such as lack of education is associated with people staying poor and household heads being chronically sick. The findings also corroborate evidence from Uganda's participatory assessments (add refs), which suggest the sick sell off assets as a coping mechanism.

Complementing the broader analysis of health expenditure and health systems, and forming a basis for the final three papers, the seventh paper models and measures how efficiently health expenditures are translated into better health. Using frontier techniques and comparing LDC's, middle income countries and developed countries, they find the developed countries in particular to have a weak correlation between performance (health outcomes) and the relative reliance on public health expenditure. Analysis over time shows only middle income countries to have a positive relationship between the relative dependence upon public finance and health outcomes.

The final three papers focus on community based health insurance (CBHI), an increasingly favoured approach for delivering health services to poor people. Using household data for Senegal, the paper by Jutting offers support for this argument and finds that such schemes do reach the poor. However, many of the poorest in the study's sample, who have minority status because of their religion or ethnicity, are unable to participate in the scheme. Tackling such entrenched social exclusion is thus a major issue for CBHI designers and managers and for

public policy more widely. Further design options for such schemes, such as the education and strengthening of management capacity and flexibility in payment procedures are examined.

Analysing the demand for voluntary health insurance is extended in the ninth paper (Osei) on Ghana, where health care risk sharing schemes have become particularly popular over recent years. By exploring design features and analysing the demand for such schemes, the paper finds many of the poor and vulnerable benefit via the payment of hospital bills. However, the poorest are largely excluded. Alongside Jutting's paper, this paper suggests that CBHI can deepen health service delivery to reach the poor but that reaching the poorest will require further innovations or supplementary policy action.

The final paper investigates which factors are important in determining participation in community based health insurance schemes in rural Tanzania. Once again the poorest are found not to benefit from such schemes, because they cannot afford to pay the regular insurance premiums and the premium exemption programme does not operate effectively. Findings also indicate that sick individuals in member households were more likely to seek treatment than non-member households and members' insurance leads to increases in health care demand.

V. CONCLUSION

The papers in the collection examine different aspects of the interactions between poverty and health status and present findings and recommendations on a variety of issues. Nevertheless, it is possible to extract a number of concluding 'messages' from their contents.

The most clear, and most unsurprising, is that any serious attempt to understand the issues of poverty or of ill health, and to reduce poverty or raise health status, must examine the dynamic linkages between poverty and ill health. Interventions that can interrupt or break the 'vicious circle' of poverty and ill health interactions, be they accessible health care, social protection or asset transfers, must be found and funded as a central component of poverty reduction. Understanding poverty/ ill health linkages and the impacts of specific forms of intervention is increasingly feasible as new datasets and improved econometric methods become available. In

this collection the econometric work stands alone, however, it is becoming clear that if it is accompanied by qualitative work an even deeper understanding of processes can be achieved.[14] Combining survey-based econometric work with life history based qualitative analysis is clearly one way forward for future research[15]. More radical combinations of methods and theories, such as Farmer's (2005) discussion of social anthropology (to understand the process of social, economic and political inequality that block access to healthcare) and epidemiology (to generate representative, scientific data about disease and ill-health) are also being proposed.

A number of relationships that have been deduced by theory are shown to be empirically valid. In particular: (i) income poverty is associated with higher levels of ill health; (ii) user fees impact negatively on health care demand by the poor; (iii) levels of HIV/AIDS infection are higher in income poor households – i.e. poorer households have a higher probability of infection (iv) poor nutrition of girls and mothers is not simply an immediate problem but is a means by which capability poverty is transferred across generations; (v) the ill health of a head of household has significant negative effects for the well-being of all other household members; and, (vi) both economic factors (i.e. ability to pay) and social factors (ethnicity, religion) influence the access of poor people to pro-poor health service delivery mechanisms.

So what policy conclusions might be drawn? While the papers make many points we identify three that are particularly relevant to contemporary debates. The first is that while 'food security' seems to have slid off the international agenda it remains a crucial issue. Even in 'nationally' food secure Bangladesh the poor experience household food insecurity that has profound implications for present day income poverty (productivity) and ill health (immune response suppression) and the poverty and health status of offspring. In many African countries, where food security is a major problem, the lack of attention paid to food policy seems surprising given its role in raising health status and reducing income poverty.

The second point is to confirm that innovations in health service delivery, such as community based health insurance, can improve the access of poor people to services at modest levels of cost. However, even effective schemes find it hard to reach the poorest. As a result, further experiments at scheme level are demanded alongside broader, political initiatives to challenge

processes of social exclusion, based on ethnicity, religion, gender and other factors, that constrain access to health services.

Finally, even though some of the papers show that public health expenditures are far from being efficient, the collection reveals that reducing poverty and improving the well-being of poor people is not an issue about whether to increase expenditure or improve efficiency. The need is to both increase expenditure on health services for the poor and poorest and, at the same time, make service delivery more effective and efficient. The deep interaction between poverty and ill health, shown in these papers, suggests that spending on health services for the poor should, at the very least, be envisioned as an investment in the human capital of present and future generations rather than a short term increase in consumption or social expenditure.

However, we should also remind ourselves that findings form the more broader factors that contribute to poor health, that are not directly linked to health services, are also of relevance. For example, and as highlighted in the theoretical motivation for this paper – aspects such as the work environment and vulnerability are particularly important when it comes to assessing the issues associated with health and poverty. More radical frameworks are emerging to further enhance our understanding of such issues, for example, the rights based perspective of Farmer (2005) and Pogge (2002) would see healthcare failures discussed in this collection as human rights 'violations' that the international community must address and that require researchers to shift from being analysts to activists.

NOTES

[1] In addition, the goal of reducing 'hunger' by half has clear implications for nutritional status and thus health.

[2] Interestingly, the WHO's official listing of causes of death includes 'extreme poverty' (code Ekw5??) at the bottom of the list. Arguably it should be at the head of the list! [NB: David – the most relevant information I can locate relates to the International Classification of Diseases (ICD), which is used to classify diseases and other health problems recorded on many types of health and vital records including death certificates and hospital records. These records provide the basis for the compilation of national mortality and morbidity statistics by WHO Member

States (see http://www.who.int/classifications/icd/en/). As far as I can tell the current list of categories does not include poverty (see http://www3.who.int/icd/vol1htm2003/fr-icd.htm)

[3] For a detailed review and analysis see Shahin (2004).

[4] Barnett and Whiteside (2002:189), found that adults experiencing an adult death spent 33% less of food and non food items in order to pay for medical costs, that have been found to be higher when AIDS was the cause of death.

[5] One study conducted in Northern Ethiopia [*Engida and Haile Mariam, 2000*] even showed that that rich individuals are more likely to get exemption papers than poor individuals.

[6] Barnett and Whiteside (2002:190) note that for a study in Northern Thailand, in 41% of households, where there had been an adult death, subsequently sold land as a coping mechanism. This is also increasingly being noted from a series of recent research that combines quantitative and qualitative methods to understanding poverty and poverty dynamics (see references in text).

[7] One of us (Hulme) vividly remembers a young mother in a Delhi slum telling him that she never saves money, even when she has the chance, because '….if you save money, your children get sick and you have to spend the savings on medicine…. if you don't save money your children don't get sick so often'.

[8] In their study, Grant and Hulme (2004) defined the poorest as those classified as 'extremely poor' in terms of national poverty line, or those in the bottom household income quintile or those experiencing chronic poverty.

[9] See De Jong (2005) for a detailed examination of the ways in which a capabilities approach reshapes the understanding of reproductive health.

[10] Mental illnesses has also shown skewed prevalence exists in rich countries (WHO, 2001).

[11] Fogel (1997) concludes that health and nutrition improvements may have accounted for between 20 and 30 percent of Britain's GDP growth rate between 1890 and 1979. Of the cross country evidence Bloom and Canning (2001) find that a one year improvement in a populations life expectancy contributes to a 4% percent increase in output. Whilst the Mexican Commission on Macroeconomics and Health (2005:16) highlight that: Barro (1996) found that an increase in life expectancy from 50 to 70 years would raise growth by 1.4% p.a.; Gallup and Sachs (2000) found that a 10% decrease in malaria is associated with a 0.3% increase in annual growth, and malnutrition causes a decrease in annual GDP per capita growth worldwide of between 0.23 and 4.7% (Arcand 2001).

[12] Indeed, in recent years things have become more complicated with the recognition that wealth is associated with behavioural changes (lack of exercise, sedentary lifestyle, increased intake of sugar and fat, loss of control of

appetite) that cause health problems such as obesity, diabetes and coronary heart disease.

[13] Reduced form health demand equations cannot reveal, for example, the education impact on health indirectly via the number of hours worked – which has consequences on the income earned (and subsequently the health of an individual).

[14] An excellent example is Naila Kabeer's (2005) study of changing livelihoods in Bangladesh. In particular, the life histories reveal how the 'snakes' of income poverty and ill health trap people in poverty and of the need for health sector reform that has both 'policy' and 'politics' dimensions.

[15] Also see Krishna *et al.* (2004) who propose a participative methodology for creating survey-type datasets. Their work indicates that poor health and health related expenses are the most common reason households report for becoming poor (ibid:221). They identify 'improving healthcare provision' as the most important policy for poverty reduction.

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