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HEALTH AND DISEASE

Sarah Atkinson

INTRODUCTION

Health and disease display uneven spatial patterns at all scales: between geo-political areas of the world, between countries, between sub-national units and within sub-national units. Health viewed as an outcome serves as a key indicator in assessments of well-being, development and policy impacts. The internationally agreed Millennium Development Goals, established to focus on eradicating poverty, give three of the eight goals to health outcomes (Sachs 2004). Geographers have sought to explore the particular influence of place in determining such patterning of health and disease at different scales (Curtis 2004; Davey-Smith et al. 2001; Mitchell et al. 2000; Gordon et al. 1999; Thomas et al. 2002). The opposite relationship of health and disease on place has been researched in relation to population responses, such as adaptations in the built environment or labour protection laws, to natural hazards and risks to health arising from different kinds of places. However, the small-scale processes by which health and particularly disease themselves act as forces in shaping and changing communities and places are far less well explored. This potentially vast topic is the main concern of this chapter. Material presented here is by no means comprehensive. Rather, the chapter will show-case research on four topics which serve to illustrate some of the processes by which health and disease may act as a force for change in the geographies of communities and places. These topics are the social and spatial consequences of the epidemic of the human immunodeficiency virus and acquired immunodeficiency syndrome (HIV/AIDS), the effects of long-term ill-health on residence patterns, the impact of stigma on both individual life-courses and the emergence of stigmatized places and the production or reproduction of social relations and values through meanings reflected, represented and enacted in specific places that have come to be associated with health and healing.

THE HIV/AIDS EPIDEMIC

By the end of 2005, 40.3 million people were estimated to be living with HIV/AIDS worldwide of which 4.9 million were new infections. In addition to which there were

an estimated 3.1 million AIDS deaths. As is well known, the distribution of those living with HIV/AIDS and deaths from AIDS is highly spatially patterned worldwide. Sub-Saharan Africa with just over ten percent of the world's population has experienced more than sixty percent of all people living with HIV/AIDS. An estimated 2.4 million deaths from AIDS occurred in sub-Saharan Africa during 2005, over seventy-seven percent of all AIDS deaths last year while better general health and the availability of anti-retroviral treatments in high income countries results in slower disease progression and lower mortality rates (UNAIDS/WHO 2005). Much of the research on HIV/AIDS has focussed on aetiology, transmission, prevention, treatment and possible cures. Efforts to understand the nature of the epidemic and its course have included work predicting likely impacts on population demography. This work is reviewed in the previous chapter and, as indicated there, HIV/AIDS makes its demographic impact through a combination of impacts on the reproductive age group and children, resulting in lower fertility rates, higher infant mortality rates and slower overall growth rates. Nonetheless, the absolute numbers affected and the fact that HIV/AIDS particularly affects adults in their main productive and reproductive years means the epidemic inevitably has and will continue to have far-reaching consequences for the economy and the social fabric of daily life at all scales of analysis. It is therefore surprising to find remarkably little empirical research by social scientists on the social and economic impact of HIV/AIDS (Barnett et al. 2001). The research that has been made predominantly concerns modelling exercises.

The first generation of models predicting the impact of HIV/AIDS on macro-economic growth suggested that the net effects of AIDS on output per capita or aggregate growth would be small relative to other factors. However, subsequent research criticised these early models for underestimating prevalence and ignoring a number of features peculiar to the HIV/AIDS epidemic. Such features include its impact predominantly on the active labour force, on the unskilled and semi-skilled labour categories and its slower incubation time, compared with other infectious diseases, from infection to expression as AIDS (Gaffeo 2003). Models compare scenarios of predicted growth rates with AIDS with a fictitious scenario without AIDS and have estimated per capita income in scenarios with AIDS to be as much as two-thirds lower than those without (Bonnell 2000 cited in Gaffeo 2003; Arndt and Lewis 2000; 2001).

At the micro-economic scale, loss of health of the productive members of a household is well recognised as a major factor that may push households into poverty, trap them further in deepening poverty or result in their disintegration altogether. In rural Tanzania, one of the commonest responses to the death of the household head (in forty-four percent of cases) was the complete disintegration of the household and whilst death of the household head from HIV/AIDS was not associated with a higher level of household disintegration, the scale of the HIV/AIDS epidemic means many more household heads are dying with substantial likely impacts on the continuity of social structures (Urassa et al. 2001). Interactions between reduced productivity, increased health costs, lower food intakes, chronic energy deficiencies and exacerbation of other health problems set up vicious circles that trap households in chronic poverty. However, the long-term nature of HIV/AIDS illness results in household assets being cumulatively eroded over time with more extensive impacts on household resources (Barnet et al. 2001; Gaffeo 2003). The International Labour Organization (ILO) (2000 cited in Gaffeo 2003) estimates that outputs in the traditional farming sector in many countries have been more than halved through the effects of HIV/AIDS. As the numbers of women affected by HIV/AIDS continue to increase (UNAIDS/WHO 2005) and women carry out the majority of agricultural work, this impact on the traditional agricultural sector looks set to deteriorate further.

The HIV/AIDS epidemic has implications and impact also on the inter-generational transmission of poverty (ITG). Such effects can be explored at different scales, as the private transmission of poverty within a family, or the public transfer or lack of transfer of resources across generations (Harper et al. 2003) and can be viewed in a wider framework of transfers or non-transfers of different types of capital (Moore 2001). Children born into impoverished households are more likely to be undernourished, more susceptible to disease and less likely to progress through education and will themselves develop with long-term and irreversible impaired capabilities. In the case of HIV/AIDS, increasing numbers of infants themselves die from infection, a total depletion of capabilities. Infection is passed from mother-to-child during pregnancy, birth or breast-feeding; for example, a study in rural Tanzania reported that twenty-five percent of all newborns of HIV positive mothers had died by their second birthday (Urassa et al. 2001). Moreover, the HIV/AIDS epidemic leaves

increasing numbers of children with at least one parent dead from the disease. In South-west rural Uganda, amongst children under fifteen years of age who had had a parent die during a three-year follow-up study, forty-three percent had died from HIV/AIDS (Kamali et al., 1996). Orphans may be highly disempowered and lose property and other resources to which they may have entitlement. Other impacts include higher vulnerability to sexual abuse or exploitation with the concomitant risk of HIV infection (Barnet et al. 2001). The poor outlook for HIV/AIDS orphans relates to the dynamics of child care arrangements through the extended family. Some shifts in social structures are recorded as numbers of orphans increase and this put stress on extended families. In Zimbabwe, orphans are now cared for by extended maternal and paternal families as opposed to depending in the past only on the paternal side. A second new feature is that of households headed by siblings rather than accommodated under an existing adult headed structure: this also indicates stress on extended families' capacity to cope (Foster et al. 1995). Observed differentials in school enrolment between orphans and non-orphans have been attributed to breakdowns in orphan care arrangements within extended families. More detailed exploration of this relationship in South Africa (KwaZulu-Natal) and in rural Zimbabwe show the most significant impact on children's school enrolment rates comes from the death of the mother rather than the father, or even of both parents ((Nyamukapa and Gregson 2005; Case and Ardington 2004). In the case of a paternal or double parental death, orphans tend to end up living with female-headed households which typically invest more in education and having greater access to external welfare resources as a result of having poorer socio-economic status (Nyamukapa and Gregson 2005).

At the same time, various services that aim to assist the poor, such as micro-finance institutions, or to invest in human capital such as education and health care are themselves undermined and eroded by the epidemic. Microfinance institutions have proved an effective support for the poor, particularly women, to invest in improved livelihoods through small loans with an excellent record of repayments. However, in high prevalence communities, client groups are highly likely to include at least one person living with HIV/AIDS. In this context people are less likely to be able to repay loans which in turn decreases the quality of services of the institutions and indeed threatens their survival. Institutions in turn must spend increasing percentages of their

resources on health-care for their own staff (Gaffeo 2003). Other services that invest in human capital such as health care and education, are understaffed or closed down as the pool of health professionals and teachers is reduced by the epidemic (Gaffeo 2003). The size of the epidemic also consumes resources and budgets for welfare and health care. On tea estates in Malawi, 40 percent of employee benefits such as medical care provision is accounted for by HIV/AIDS, illustrating how other needs are pushed out and systems overwhelmed by the epidemic (Bollinger and Stover 1999, cited in Gaffeo 2003). The burden of AIDS patients was shown in a longitudinal study in Kenya to damage other health care provision through displacing others in need of care from hospitals (Gilkes et al., 1998 cited in Barnett et al. 2001).

This section has illustrated just some of the ways in which HIV/AIDS impacts on economic and social aspects of everyday life of households, trapping them into deeper and more vicious cycles of poverty during a life-course and across generations. Without dramatic policy intervention, the scale of the HIV/AIDS epidemic in some districts and countries of the world, and the relatively slow progression of the disease implies that profound changes to social structures, household dynamics and economic performance are likely, with a long-term polarization of wealth distributions.

HEALTH AND HOUSING

In the very different context of high income countries, the spatial distributions of a range of socio-economic indicators over time reflect a scenario in the UK in which neighbourhoods are becoming more homogeneous, at the same time as differences between these communities are growing (Dorling and Rees 2003). Spatial distributions of inequalities in health and their association with place are most commonly understood as reflecting deprivation charted by a range of social and economic variables. The examination of ill-health as not only an outcome of deprivation but also a contributing factor through health-selective mobility and migration has been unpopular and under-researched (Norman et al. 2004; Smith and Easterlow 2005).

Understanding the processes contributing to this trend centres on factors affecting residential options and choices and specifically on the functioning of housing systems.

Susan Smith and colleagues have explored the ways in which health status is associated with people's housing options and choices and thus contributes to shaping this increasingly polarized spatial distribution of deprivation in the UK (Smith and Easterlow 2005; Smith et al. 2003; Smith et al. 1997). They identify and document three processes by which people's experiences of long-term illness result in a greater likelihood of living in neighbourhoods with higher levels of deprivation, including higher than average levels of long-term illness, and which are viewed in turn as unhealthy places.

First, the authors detail what they term *selective placement*. This comprises processes occurring once people have developed a long-term illness. As a result of this illness they then move into neighbourhoods that are more 'unhealthy' than their previous place of residence. Making this decision is largely concerned with affordability and availability of properties that meet particular needs. A scheme of Medical Priority Rehousing did enable some of those with long-term illness to be advantaged in relocation to more suitable housing for their particular needs (Smith et al., 1997). However, the wider political and economic context in the UK at the time had led to much of the stock of public housing being sold to private owners. The stock that remained available to buy at low price, or was available for welfare-based relocation was most often located in the less desirable, marginalized neighbourhoods.

Secondly, people who wish to move elsewhere become trapped after developing a long-term illness. They are unable to move unlike the healthy residents of the neighbourhood. Three sets of factors influence this process of *entrapment*. Financial considerations are manifest through a combination of increased expenses incurred by people with long-term illness and depressed incomes. People may feel tied in or anchored to their residence by investments already made to accommodate their mobility needs. The importance of memory and emotional attachments to the house and wider neighbourhood is sometimes overlooked but can also act as a force for entrapment.

Thirdly, processes of *selective displacement* operate where those who do live in healthier neighbourhoods feel pressure to move; almost half of those interviewed in one study (Smith and Easterlow 2005). Thus the healthier neighbourhoods effectively

push out those who are unhealthy through extra pressures on incomes and the context of housing costs (Smith and Easterlow 2005).

The particular importance drawn out from these studies is twofold. First they demonstrate in detail some of the processes by which health and ill-health act as forces in determining residence and thereby the character of different neighbourhoods. But more importantly, this set of studies argues that the extent that such processes of selectivity can operate depends on policy orientations and institutional practices and their interaction with people's own emotions and self-perceptions. This work illustrates well the danger of only seeing health as an outcome and failing to 'position the health divide as a marker of discrimination as well as an index of risk' (Smith and Easterlow 2005: 181).

This focus on emotion and self image overlaps with work on the way in which different experiences of health may be associated with responses from other people not suffering from ill-health. Peoples' future life chances often depend upon their social context and the stigma of ill health can also have powerful impacts.

STIGMATIZATION

All illnesses can be viewed as stigmatizing to some extent: 'they represent potential or existing physical limitations; they are associated with particular negative images and myths, and therefore they take on symbolic meaning' (Fife and Wright 2000: 51). The ways in which a stigmatized illness can impact on communities and places can be explored at different scales. Processes experienced at the individual scale can be aggregated to inform our understanding of how social discrimination may build up into a map of spatial discrimination.

The seminal work on stigma at the individual scale comes from Goffman (1963). Goffman defines stigma as, 'the situation of the individual who is disqualified from full social acceptance' (1963:9) and categorized common stigmatized statuses into three groups – physical imperfection, character flaws, and membership of a negatively regarded group. Individuals are stigmatized through a process of discounting and discrediting by others, who redefine them as no longer whole, acceptable members of

society turning them into persons whose identities are spoiled and tainted. Since the self can be seen as produced through processes of interaction with others and perceptions of others' assessments of self, stigmatization operates not only through the responses of others but also through internalized feelings of low self-worth and shame resulting in withdrawal from social interaction (Fife and Wright 2000). The effects of stigma may include loss of social status, lessened life-chances and opportunities, reduced social interaction, employment opportunities, emotional well-being and lowered self-esteem. An exploration of the multi-dimensional ways that illness may impact on perceptions of the self, comparing HIV/AIDS and cancer, concluded that the nature of the illnesses themselves had few *direct* effects on self-evaluation. What did impact on self-evaluation was the different stigma that the two diseases generated. The severity of the illness did have an indirect effect in that greater stigmatization was associated with greater severity; nonetheless, the effects of stigma were significant over and above either the impact of functional health status or perception of the illness' severity (Fife and Wright 2000).

The pattern of HIV/AIDS in the west, associated with homosexuality and intra-venous drug use, involves all three of Goffman's types of stigma. In the comparison of groups of people living with either HIV/AIDS or cancer, the stigma experienced by those with HIV/AIDS was, as predicted, much higher than those with cancer (Fife and Wright 2000). The experience of living with HIV/AIDS leads many to exercise major changes to their lifestyles including changes in residence. Amongst people living with HIV/AIDS in Australia, fifteen percent reported the current accommodation as unsuitable for their needs whilst forty-four percent had already changed their living arrangements. Of these, twenty-four percent said this was for financial reasons. Over half of the study participants were not in work and reported that the only positive aspect of not working was health benefits, whereas it negatively impacted on finances and enjoyment of life; three-quarters reported a fall in income since developing HIV/AIDS including a third of those in full-time employment. Changes in living arrangements were not only mediated however by financial changes; forty-eight percent reported the change was for lifestyle or social reasons. Highest amongst the social reasons were discrimination and abuse and a sixth of all study participants explicitly reported experiences of HIV/AIDS related discrimination and harassment resulting from their current residential location (Ezzy et al. 1998). Here again we can

see the direct effect that living with a disease can have on residential options, in this case operating through the processes of stigmatization provoking selective displacement.

The effect of adult disease on the transfer of human capital to the next generation, discussed in the previous section, is also exercised through processes of stigmatization. The impact on children of an HIV-positive parent or carer may be exacerbated through the difficulties children experience in sharing their problems and seeking the support they need. Children in Scotland often became carers for their HIV-positive parents through episodes of increased illness, by carrying out housework, cooking, bathing the parents, cleaning the bed and caring for younger siblings. Whilst a few viewed school as a place of refuge, enjoyed school and were doing well, the majority experienced substantial educational difficulties at school with consequential impacts on future life-chances. Many missed substantial portions of the term from absenteeism whilst caring, or through tiredness when in the classroom, an effect further compounded by feeling isolated and lacking support. In particular, children did not want teachers or other children to know that their parent was HIV-positive. Moreover, the parents and the extended family asked the children to keep the illness a family secret. Children were aware that if they shared the secret with friends, they risked being ostracized, discrimination from their peers and anger and blame from their parent and other family members (Cree et al. 2006). The distribution of HIV/AIDS in the UK is already strongly spatially patterned with marked clustering in large urban centres. The study by Cree and colleagues was explicitly carried out in the three main centres for HIV/AIDS in Scotland, Edinburgh, Glasgow and Dundee. The effects of the illness on the next generation, mediated in part by the stigmatized nature of the disease, decreases these children's life-chances and opportunities and creates a vicious cycle reproducing conditions of deprivation. At worst it may initiate a vicious spiral downwards through inter-generational transfer of poverty and disadvantage in these areas.

Whilst the effects of stigma have resulted in great attention to anonymity and confidentiality issues in the west, Rotheram-Borus et al., (2005) argue that this outcome is unlikely to be the same in all contexts. In small communities in low income countries greater concerns about stigma may help increase the stigmatized

nature of the disease and concomitant impacts on those living with, or associated with it. Here a potentially misplaced concern with a sensitive response to a disease might well aggravate stigmatization and its associated negative consequences.

Work on the individual and on how stigmatization affects people and their life-chances, opportunities and interactions with communities and places has also been scaled up by geographers who have explored the nature of stigmatization in relation to places. Of particular interest here is the stigmatization places experience when they become associated with the production of poor health. Industrial cities were once viewed as centres of growth and prosperity but in a post-industrial age have experienced a shift in image to become unhealthy, 'tainted' places by dint of association with industrial pollution and environmental contamination. Drawing on the definitions and concepts outlined by Goffman, two studies, one in Teesside in the Northeast of England (Bush et al. 2001) and one in Hamilton, Ontario in Canada (Wakefield and McMullan 2005), demonstrate how places too may become stigmatized. Goffman (1963) stressed that the more visible the problem the more likely it was that stigmatization would occur; the highly visual nature of pollution from heavy industry creates powerful stigmatic symbols (Bush et al. 2001). In both cities, planners and politicians fear the unhealthy image of post-industrial era environmental contamination will discourage new investment promoting deeper marginalisation and decline. In both cities, various actions have been undertaken to make the environment healthier including improvements in air and water quality. In both cities, the planners and politicians have initiated campaigns outside and within the city to challenge the hegemonic virtual image of unhealthiness, by asserting a counter-image, the actual image of a clean, pollution-free city. Both studies demonstrate how the stigmatized characteristics of place are transcribed onto its residents; the polluted nature of the place signifies the polluted nature of the residents who are in turn stigmatized by the same criteria.

Residents in both Teesside and Hamilton have a mixed set of responses to the stigmatization of their city. Some resist the labelling. Respondents in Teesside object to being labelled by people outside the area as 'smogs' (Bush et al. 2001). Residents in Hamilton emphasize the health affirming or maintaining characteristics of sites in their city. Personal qualities of the residents are highlighted, particularly in Hamilton,

as a counter to the polluted image but the authors warn this empowering discourse may bring its own costs. Valuing the image of toughness and blue collar grit may affirm strength of character, but projecting an image of unassailable coping may reduce the outsiders' concern for the neighbourhood's wellbeing (Wakefield and McMullan 2005).

Such processes of renegotiation of stigmatised identities do not however constitute any real resistance or contestation of the stigmatization process. On the contrary, processes of stigmatization were re-expressed in a more localised manner that mirrored the 'processes of image creation and social exclusion occurring at the regional level' (Wakefield and McMullan 2005: 309). Residents, perceiving themselves as stigmatized by others, responded very much Goffman had suggested, by attempting to 'normalize' themselves through disassociation with the characteristics of the stigma. In these cases, the characteristics of the stigma are associated with place and thus the technique of disassociation involves a literal distancing. Residents in many areas of both Teesside and Hamilton make an explicit distinction between their neighbourhood, which is not polluted and is healthy, and those unhealthy neighbourhoods which are nearer to the original source of the perceived contamination (South Bank in Teesside; North End in Hamilton). These neighbourhoods, then, are doubly stigmatized both by outsiders stigmatizing the city as a whole, but also by a highly localized process within the city which results in deepening social exclusion and disadvantage for already deprived neighbourhoods. A counter-discourse to this highly local imaging of the cities was offered by the residents of South Bank in Teesside, who claimed the air pollution affected distant neighbourhoods as just as much as theirs (Bush et al. 2001).

These processes of stigmatisation of places illustrate two important considerations regarding the relationship between health, disease, communities and places. First, whilst the dominant image constructed of a place is always only partial with room for negotiation and potential change, this should not be overstated because the processes of negotiation and resistance are themselves highly partial. The result of local renegotiations of a city's stigmatized identity is a highly localized re-expression of stigma that contributes to the production and reproduction of neighbourhood inequalities. Secondly, the studies illustrate how powerful health is as a metaphor

which can generate harmful processes, deepening disadvantage and deprivation. Indeed Wakefield and McMullan explicitly contrast their study to the body of work within geography on therapeutic landscapes, the exploration of places associated with health and healing (Gesler 1998).

HEALING PLACES AND SPACES

The therapeutic landscape literature emphasises reputations gained because of a perception of security, safety, identity and material and aesthetic support (Gesler, 1998). Much of this research explores the therapeutic effect or the social construction in different contexts of exceptional places of healing, such as Lourdes (Gesler 1996; see also Chapter 15) or particular types of places. Again, less attention has perhaps been given to how health itself has affected those places. Of particular interest here is the commodification of places perceived to be healing, and the creation and marketing of healing locations.

The design of spaces for healing and health promotion reflects social values but also reinforces and reproduces these values. Research on the location and activities of mental asylums in the nineteenth century emphasise the value given to fresh air, adequate daylight and free-draining soils (Gesler et al. 2004). The value given to the rural setting for healing reflects a perception of urban living as the cause of much disease, an ambivalence regarding urbanization and industrialization and a fear of loss of values and distance from what is natural (Smyth 2005; Tonnellier and Curtis 2005). Such ambivalence towards the urban and a romanticization of the rural persists and is reflected in current enthusiasms for outdoor leisure pursuits in areas perceived as natural and whose current form of naturalness is in turn protected. National parks in this context are clear examples of therapeutic landscapes. A number of studies of the formal locales of health provision explore the way in which these settings reflect and re-institute power relations and thus serve to reproduce various enactments of social inclusions and exclusions (Smyth 2005).

The structures, procedures and interactions of family planning services serve to support the control of experts through the manipulation of knowledge and technology which reproduces social norms of heterosexuality and able-bodiedness (Gillespie 2002).

These norms are also found in health promoting settings such as gyms (Andrews et al. 2005). Political ideologies are reflected, enacted and promoted through health related institutions. The perceived expansion of 'wellness tourism' represents a new expression of a resort or retreat but also reflects a new ideology towards health, with an emphasis on individual responsibility for wellbeing. The old specialized 'cure institution' of the spa is increasingly complemented by more general leisure-based hotels, that market themselves with facilities and services to promote wellbeing (Mueller and Kaufman 2000). Similarly, the design of new hospitals clearly reflects the neo-liberal agenda of the patient as client, offering choice and leisure activities, whilst at the same time reproducing the power of the expert and the hospital through explicit emphasis on the availability of state-of-the-art technologies (Kearns and Barnett, 1999; 2000).

As a final consideration, the expansion of the internet has made possible a whole range of new types of spaces and virtual places in which to seek or experience health and healing (see also Chapter 33). In these virtual spaces and places, it is strangely the disembodied nature of health seeking that enables encounters that have a highly embodied relevance. From searching for information, to on-line medical consultations, to membership of support groups, the role of health and disease in taking people on a journey through the internet's spaces and places may change not only the impact of their illness but also the nature of their social networks. Virtual healthy communities may subvert the construction of power hierarchies in society between expert and lay categories.

A study of pregnant women who had a drug-abuse history found the women were more likely to participate via an electronic voice bulletin board than in face-to-face meetings. Almost all the comments women left concerned exchanges of emotional support and women reported that the more they participated, the more they felt a sense of solidarity with others participating (Alemi et al. 1996). Similar studies of users of internet-based support groups for depression have reported considerable benefit in reducing feelings of social isolation (Houston et al. 2002), although very few studies have assessed the effects of peer interactions in isolation from other medical interventions (Eysenbach et al. 2004). Web-sites disseminating health information are estimated at more than 70,000 with 50 million people seeking health

advice (Cline and Haynes 2001). The ready availability of health information on-line raises questions about availability and inequalities in searching and evaluating what is largely unregulated information (Eysenbach and Kohler 2002). Nonetheless, the potentially greater access to information for the general public may radically challenge the traditional relationship between the expert service provider and the lay user, a relationship recognised as already under pressure and being renegotiated through the actions of patient support networks (Rabeharisoa and Callon 2002). At the same time, differences in access to, and use of the internet mirror other inequalities in public access to, and provision of health services. Whether global, national and sub-national inequalities in access to these new and emerging spaces of health care reflects existing health care inequalities, redistributes them, reduces them or polarizes them still further are contemporary questions for geography.

CONCLUDING COMMENTS

The chapter has provided four topics of health and disease through which to explore how contemporary health and disease issues may act as forces for change within communities and places. Health and disease clearly impact on the spatial patterning of inequalities. Processes by which this occurs are complex and likely to be highly contextually specified. Research summarized here identifies impacts on income, costs, social status and inter-generational transfers of impaired human capital as some of the mechanisms by which health and disease exert their force. The particular processes of stigmatization are given some prominence in their hidden role affecting choice of location, expressions of need and wider impacts through stigmatized places. The institutions through which health care or health promotion are sought afford not only an insight into the social and power relations of the society in which they are embedded but also provide places and spaces in which those relations are enacted, reproduced and reinforced or challenged and changed. There is a surprising lack of research regarding health and disease as a force for change at the micro-scale of everyday processes. This absence of research has been commented on by several authors. Barnett et al. (2001) decry an unwillingness amongst social scientists to engage in policy-relevant research. Smith and Easterlow (2005) highlight a lop-sided, unbalanced, 'strange' geography of health suffering from 'healthism' in its bias to research on health as an outcome. The research presented here all afford forces for

change themselves and go some way in redressing this imbalance in the geographies of health.

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