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Health Inequities and the Social Determinants of Health

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INTRODUCTION

The health of individuals and populations is influenced by many variables. These include genetics and biology, but perhaps more important than these are the social determinants of health. The social, political and economic circumstances in which people live their lives are critical in determining how long they live and with what burden of ill health. These differences are very marked between countries, for example a 15-year-old boy in Lesotho has about a 10% chance of living until the age of 60, compared with a 15-year-old boy in Sweden who has a 91% chance of living to 60 (Marmot, 2005). The differences are not, however, limited to those between countries; within countries, people's life expectancies vary according to where they live, their educational opportunities, what kind of work they do and how much they earn. Study of the social determinants of health has informed our understanding of patterns of health and ill health and led to discussion about the moral implications of these patterns, and possible actions to reduce disparities (Anand, Peter & Sen, 2004).

INEQUALITIES AND INEQUITIES

Health inequalities are 'differences, variations and disparities in the health achievements of individuals and groups' (Kawachi et al., 2002, p. 647). To say that a health inequality exists tells us that there is a difference in health status or health outcomes between some individuals or groups. Women have higher rates of osteoporosis than men for example, so that there is an inequality in the distribution of the incidence of osteoporosis between men and women. Men have higher rates of cardiovascular disease than women, another health inequality. Professional footballers have higher rates of some musculo-skeletal injuries than the general population. These are descriptions of states of affairs; the existence of health inequalities per se does not necessarily mean that the inequalities are unfair or unjust in a way that demands our moral attention. In general, health inequalities which are the result of social circumstances which are themselves morally wrong (for example, poverty, educational disadvantage or racial discrimination) are considered unjust. Health inequalities which are the result of bad luck (for example, biological or genetic factors over which we have little control) or the result of free and deliberate choices on the part of individuals (such as the choice to go hang gliding) may not be inequitable, although of course how we respond to them raises issues of justice. Health inequalities which are the result of unjust conditions or failures of identifiable duties are termed health inequities.

To give an example, the kinds of health differences which are inequities are those associated with social, political or economic circumstances which are in themselves morally wrong. In Australia, babies born to indigenous mothers are more likely to be of low birth weight (12.9% compared with 6.2% of babies of other mothers) and more likely to die. The perinatal mortality rate for babies born of indigenous mothers is 17.2 per 1000 compared with 9.5 for babies of other mothers (Laws & Sullivan, 2004). These stark differences are inequities because they are the result of multiple social, economic and political wrongs including dispossession, poverty, inadequate housing, unemployment, lack of access to culturally appropriate health care and lack of educational

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opportunities. All of these factors are unjust or unfair rather than the result of bad luck or free and voluntary choices, making the health disparities inequitable, rather than just unequal.

HEALTH EQUITY

The International Society for Equity in Health offers this definition of equity in health: 'the absence of potentially remediable, systematic differences in one or more aspects of health status across socially, economically, demographically or geographically defined populations or subgroups' (Macino & Starfield, 2002). Turning this around, health inequities have been defined as those health inequalities which are unfair or unjust, or stem from some kind of injustice (Kawachi et al., 2002). In her influential 1992 paper, Whitehead included the criteria that health inequities be avoidable. This has been challenged on the grounds that unfairness implies avoidability, and that it is undesirable to link equity explicitly to avoidability as this may offer reasons not to act if an inequity is deemed unavoidable (Braveman & Gruskin, 2003).

Whitehead identified seven main determinants of health differentials. Three of these, natural biological variation, freely chosen health damaging behaviour (such as dangerous sports) and early uptake of health promoting behaviour are generally accepted not to be inequities. She considers the other four to be avoidable and to be associated with health inequalities which are unjust. These are:

1. health damaging behaviour where there is severely restricted degree of choice over lifestyle;
2. exposure to unhealthy, stressful living and working conditions;
3. inadequate access to essential health and other public services; and
4. health related social mobility, reflecting the tendency for ill people to move down the social scale (Whitehead, 1992, p. 432).

There are challenges in measuring and assessing health inequalities and in translating these data into information about health inequities. One of the key issues revolves around whether to measure social group differences in health, or the distribution of health statistics across individuals in a population (Kawachi et al., 2002). Measuring individual health disparities allows comparisons between the healthier and the sicker within populations and provides flexible data for comparisons over time and space. This can be useful for international comparisons in which there are problems comparing different occupational or social groups. On the contrary, simply measuring disparities without looking at the distributions of these across social groupings does not tell us anything about equity and the effectiveness of policies to reduce inequities, and may hinder inquiries into the causes of health inequalities (Kawachi et al., 2002; Braveman & Gruskin, 2003). Although both individual and group data are complementary and useful, it is the latter which are critical in identifying health inequities and so paving the way to addressing them through policy and practice.

As well as measuring health outcomes, equity in access to health care is also important. There are two dimensions to equity of access to health care; vertical equity refers to preferential treatment for those with greater health needs, while horizontal equity refers to equal treatment for equivalent needs (Macino & Starfield, 2002). Both are necessary for comprehensive equity of access, although policy makers and service providers have found it easier to focus on horizontal equity as this does not involve the difficult process of prioritizing between competing health needs.

HEALTH EQUITY, SOCIAL JUSTICE AND RIGHTS

Health equity is a normative concept, grounded in values of fairness and justice and extending well beyond the arena of health care and health policy. Sen has argued that health equity is central to an understanding of social justice for three reasons (Sen, 2004). First, good health is a critical constituent of human capabilities, as without good health, we are limited in our opportunities for other capabilities and in achieving the things that we value. If the lack of good health is potentially avoidable and due to social, political or economic arrangements, it is an unfair limit on one's capabilities. Second, equitable processes are important in relation to access to health care services. Health equity would not be achieved, according to Sen, by discriminating against healthier groups in order to reduce their health to that of the worst off group, although this might eliminate some health inequalities. Sen's final argument is that health equity cannot be solely concerned with health capabilities or access to health care, but must also engage with the ways that resource allocation and social arrangements are linked to health. For example, health equity might require a redistributive taxation policy rather than a universally low rate of taxation if the former had a greater impact on reducing poverty, with its associated health inequities (Sen, 2004).

Braveman and Gruskin (2003) link health equity with human rights. The right to health is recognized in a number of international treaties and declarations, including the International Covenant on Economic, Social and Cultural Rights which requires recognition of 'the right of everyone to the enjoyment of the highest attainable standard of physical

and mental health' (United Nations High Commisson on Human Rights, 1976). This claim has been criticized on the grounds that it does not provide a clear standard for action; however Braveman and Gruskin argue that one way of operationalizing this is to take the standard of health enjoyed by the most advantaged group in a society as the standard which should be achievable for all members of that society. Further connections between human rights and health equity can be made by grounding the notion of equal opportunities to be healthy with the right to non-discrimination, emphasizing the responsibility of governments to eliminate the discrimination which exists against social groups suffering health inequities.

On a global scale, abuses of human rights are closely associated with health inequities, ranging from the spread of HIV/AIDS among those with the least protection of their human rights, through to the adverse health effects of incarceration and torture.

THE SOCIAL DETERMINANTS OF HEALTH

The evidence for the impact of social, political and economic circumstances upon health is considerable. In all societies, there is a socioeconomic health gradient in which those who live in more comfortable circumstances have longer and healthier lives than those who are less well off (Daniels et al., 1999; Wilkinson & Marmot, 2003). Between countries, the differences are marked with life expectancies in poorer countries far lower than in richer countries. For example, in Lesotho, Swaziland and Zimbabwe, the 2003 life expectancies were less than 40 years, compared with over 80 years in Japan, Switzerland and Iceland (World Health Organization, 2004). Within countries there are also disparities which can be as large as those between countries. There is a 20 year gap in life expectancies between white men in the healthiest US states, compared with black men in the least healthy (Marmot, 2001). In Australia, the excess mortality rate for disadvantaged women is such that if the death rate could be lowered to that of the least disadvantaged, there would be a 56% decrease in the premature all-cause mortality rate for women aged 24–65; for men the reduction would be 26% (Turrell & Mathers, 2001). This social gradient effect is not limited to the poorest but operates across the spectrum, so that even among those who are employed, such as middle class office workers, lower ranking staff have higher rates of morbidity and mortality than higher ranking staff (Marmot et al., 1997; Donkin et al., 2002).

This kind of information raises interesting questions as to whether it is the socioeconomic gradient itself or poverty which causes these inequalities. Internationally, there is a clear relationship between life expectancy and per capita gross domestic product (GDPpc), but once a certain threshold level of GDPpc is reached, the relationship levels off (Daniels et al., 1999). Countries with similar GDPpcs may have quite different life expectancies. For example, both Cuba and Iraq have quite low GDPpcs, but life expectancy is over 20 years higher in Cuba than Iraq. Likewise, countries with quite large disparities in income may have similar life expectancies. The United States, for example, is far richer than Costa Rica, but the two countries had identical life expectancies in 2003 (Daniels et al., 1999; World Health Organization, 2004).

Observations of these kinds have led to debate about the definition of 'poverty' and whether this should be defined in absolute or relative terms. Absolute poverty describes the condition in which a person is unable to meet basic human needs such as food or shelter, while relative poverty relates to the standards which exist elsewhere in the society. Given the strength of the socioeconomic gradient in health across all groups, including those who are reasonably well off, the concept of relative poverty is more useful in relation to health equity (Kawachi et al., 2002).

Further work in this area has explored the links between absolute and relative incomes in relation to health inequalities. Differences in life expectancies seem to vary with the nature of income distribution within countries indicating the importance of relative income; the more equal the income distribution, the higher the life expectancy, and vice versa. This may be part of the explanation as to why Costa Rica has a life expectancy similar to that of the United States despite much lower incomes. This theory is currently under investigation through looking at the association between income distribution and individual health. To date, the results are mixed with some studies identifying an income inequality effect on either individuals or groups, while other studies have found no effects (Kawachi et al., 2002).

There is often a clustering or cascade of the health effects of socioeconomic disadvantage. Sources of exclusion from health care, particularly in poorer nations, include geographical isolation, poverty, race, language and culture. These factors go hand in hand with exclusion from other services such as safe housing, clean water and sanitation and education (World Health Organization, 2005). In more affluent nations, disadvantage also compounds, with those born into poverty more likely to have ill health and lower educational achievements, leading to lower job security, more poverty, more stress and more ill health.

The kinds of factors which are known to impact upon health include psychosocial stresses as well as material disadvantage. In practice, the two are linked as lack of material resources, such as inadequate housing or lack of income, are likely to trigger feelings of stress and distress. A range of

psychosocial stresses including isolation, low self-esteem, anxiety, insecurity and lack of control over one's work are associated with poor physical and mental health (Wilkinson & Marmot, 2003).

The effects of deprivation not only reflect a person's current circumstances, but are also cumulative over the life cycle. Three possible mechanisms for this have been suggested. Latent effects refer to adult health effects associated with the early life environment, including intrauterine health, which are independent of any intervening conditions, such as the association between intrauterine growth and adult cardiac disease. Pathway effects describe the ways in which the early life environment sets individuals onto life trajectories which affect health status over time, such as exposure to high levels of pollution in childhood leading to an excess burden of respiratory disease with loss of school time, poor educational achievement and low status work in adult life. Cumulative effects relate to the intensity and duration of unfavourable exposures over time, in a dose–effect relationship, such as the cumulative effect of anxiety and stress experienced by a person with poor job security and isolation, culminating in depression.

THEORETICAL RESPONSE TO THE MORAL IMPLICATIONS OF HEALTH INEQUALITIES

As discussed above, the concept of health equity is a normative concept, raising questions about justice, fairness and the values which societies ought to promote. This has led to significant work in moral philosophy, as scholars describe and defend theories of justice in relation to health equity (Anand, Peter & Sen, 2004; Ruger, 2004). Prior to the interest in health equity, questions of resource allocation in health care were dominated by utilitarian thinking, in the form of quality-adjusted life years and cost-effectiveness analyses. These focus upon maximizing overall benefits or utility, with little regard to the degree of inequality in different distributions of benefits. Given what we now know about the nexus between disadvantage and poor health, recent accounts of justice and health care have avoided a simple maximizing approach. Two significant accounts warrant discussion here: the justice as fairness approach of Daniels and colleagues; (Daniels et al., 1999; Daniels, 2002) and the capabilities approach of Sen (1992, 2004).

Rawls' theory of justice as fairness specifies the terms of social cooperation which free and equal citizens can accept as fair. Rawls does not address questions of health and health care, but Daniels argues that justice as fairness does provide a way of addressing health inequities 'by establishing equal opportunities, a fair distribution of resources, and support for our self respect – the bases of Rawlsian justice – we would go a long way in eliminating the most important injustices in health outcomes' (Daniels, 2002, p. 11). A society organized on Rawlsian principles would be likely to flatten the socioeconomic gradient considerably, thus eliminating a major antecedent to health inequities. In addition, the guarantee of the social bases for self-respect together with the citizens' convictions that their prospects were fair might decrease some of the psychosocial stresses of being at the lower end of any remaining socioeconomic gradient.

There are at least two areas, however, where this justice as fairness approach is problematic. The first is in connection with the Difference Principle which permits inequalities as long as the inequalities work to make those who are worst off as well-off as possible. Putting the Difference Principle into practice requires a decision about potential trade-offs between health and other primary goods, for example, risking health by taking a high paying but physically dangerous job such as underwater maintenance on an off-shore oil rig. As Daniels notes, there is no clear answer to the question as to how much health one can trade for other gains, nor how to judge any ensuing inequalities. Perhaps more importantly, it may be the wrong question in that health and other social goods are not separate and independent such that they can be traded-off in a relatively simple way. The second problem area is that of allocation, both setting fair limits to the total resources allocated to health care in relation to other goods, and prioritizing between patients. Prima facie, a commitment to fair equality of opportunity requires giving priority to the worst-off, as ill health drastically reduces one's opportunities across the board. But does this require a never-ending stream of resources to be directed to the worst off despite diminishing returns? Alternatively, we can look at who is likely to benefit most, but this takes us back to the problem of distribution – those benefiting the most may not be those with the greatest burden of ill health or disadvantage, so that the results might do nothing for health equity. Daniels notes that in the absence of an agreed set of principles of distributive justice, the question becomes one of procedural justice: under what conditions are rationing decisions legitimate? He then outlines four conditions under which limit-setting decisions might be considered fair and legitimate.

Sen takes a different path. His capabilities approach argues that health is not only central to our well-being but also that the exercise of our other freedoms and capabilities is dependent upon our health achievements. As such, health equity is central to social justice rather than being a fortunate side-effect of implementing justice as fairness (Sen, 2004). Taking the capability for health as the central goal, rather than specific health achievements or equitable distribution of primary goods, recognizes the importance of agency and the role of individual choice in influencing health outcomes. Sen notes, however, that for the most part health achievement is a good guide to the underlying capability, given almost universal preferences to be healthy.

Sen's account of capabilities engages with the complexity of health and the inter-relatedness of health with other important capabilities such as the capability to be well educated, to avoid economic vulnerability and to be self-determining. The capability for good health is obviously reliant to some extent upon the distribution of resources and primary goods, but other considerations beyond the social and economic are also important, such as personal disabilities, individual susceptibility to illness, hazards linked to geographical location, climatic variations and so on (Sen, 2004). Thus, equality in health capabilities can be distinguished from equality in the distribution of the resources necessary for health, and it is the former which is central to health equity. Ruger (2004) argues that the capability approach to health recognizes the central role of health in all of our capabilities, and the importance of addressing health needs on multiple fronts in multiple policy domains, through comprehensive strategies delivered through multiple institutions.

Other scholars have addressed the question of why health inequalities are morally important and which of these are unjust, without developing a more comprehensive theory. Brock (2002) has examined whether or not the worse off have special moral claims, and if so, how we should respond to them. In giving priority to the worse-off rather than to those with the greatest needs, it is possible or likely that there will be fewer overall gains in health care, thereby requiring some justification. Brock identifies three potential justifications for a prioritarian view. The first is that the worse off a person is, the greater the relative improvement in their condition a given benefit will provide, and so for any given health benefit, it will 'matter more' to a person who is worse off. Though this is intuitively appealing, it may be hard to find a scale which combines disadvantage and ill health in an appropriate way, or to argue that a person with diabetes, heart disease and cancer is more deserving of life saving treatment than a person with cancer alone. A second possible justification is that there are stronger moral claims generated by the ill health associated with undeserved disadvantage, just because the disadvantage and ill health are undeserved. This relies on being able to distinguish between deserved and undeserved disadvantage which is a notoriously difficult question, especially in relation to health inequities where the interconnections between social context, opportunities and choices, and health are so complex. Finally, priority to the worse off may be justified by treating the most urgent needs first on the grounds that urgency is morally relevant. Treatment of urgent needs at the expense of those with less urgent needs would need to take into account other morally relevant considerations such as the needs of the better off and the likely diminishing returns of treating some conditions. The problem here is that, for example, a programme to treat an urgent health need such as life threatening heart attacks may have an inequitable effect in that it is the least disadvantaged who are most likely to have access to emergency services. As Brock notes, all of these arguments are complicated by the difficulty of defining who is worse off, even if we limit this to health rather than overall disadvantage (Brock, 2002).

Taking a broader approach, Beitz (2001) has looked at the reasons for thinking that global inequalities matter. In doing so, he puts aside direct reasons grounded in the view that equality is a fundamental ethical requirement and focuses upon derivative reasons. These revolve around the moral imperative to relieve the harms which are associated with inequality, including avoidable suffering, humiliation and denial of agency, curtailment of liberty and procedural unfairness. All of these are reasons which we can have for acting against inequalities which, by virtue of their moral wrongness, are also inequities. The advantage of this approach is to 'concentrate attention on the situation of those who are worse off and to emphasize the respects in which their circumstances interfere with their living what might reasonably be described as decent satisfying lives', which he takes to be a fairly uncontroversial conception of human well-being (Beitz, 2001, p. 120). Beitz also points out that many of the possible measures to alleviate the harms of global inequalities do not require some kind of levelling, but might instead focus upon alleviating specific harms through, for example, community empowerment, improved nutrition or the introduction of democratic processes.

PRACTICAL RESPONSES AND REASONS TO ACT

Alongside these philosophical investigations, practitioners and policy advisers have taken a practical approach to addressing health inequities.[1] In their discussion about the reasons to reduce health inequalities, Woodward and Kawachi (Woodward & Kawachi, 2000) emphasize the practical benefits and solutions. One of their arguments revolves around the claim that inequalities affect everyone, so that conditions which lead to significant health inequalities are detrimental to all members of society, not just the disadvantaged. This is the self-interest argument which drove many of the sanitary reforms in the nineteenth century as the affluent realized that poor living circumstances created ideal conditions for the infectious diseases which then threatened their own well-being. The threat of spread

[1] There is a point of terminology to be noted here. Much of the literature, especially the medical literature, uses the term 'health inequalities' 'health gap' (UK and Europe) or 'health disparities' (US) rather than health inequities, presumably to avoid the normative dimensions.

of infectious diseases from disadvantaged areas to more affluent ones is probably higher today, with the ease of international travel and the likelihood that epidemics of diseases such as avian flu will emerge from countries with relatively poor living conditions or inadequate health services. Spill over effects are not limited to contagious diseases but apply to alcohol misuse, violence and mental illness also, as high rates of these problems can affect all members of a society. Woodward and Kawachi argue that interventions to reduce social inequalities will have not only health related benefits for the whole community but also wider benefits such as reducing social exclusion which is both costly in terms of loss of potential resources and leads to increased danger from those who feel disenfranchised from the mainstream society. A second practical line of reasoning is that interventions to reduce inequalities do exist and are cost-effective, although there is a current paucity of evidence, and our understanding of the underlying mechanisms linking disadvantage and ill health is incomplete. The small body of existing research evidence indicates that interventions to improve access to health care for the disadvantaged can have a potentially significant impact upon health inequalities, but as we have noted above, access to health care is only a small part of health equity. It is likely that interventions outside the health sector which improve social determinants such as income and education will have the greatest effect on health inequalities. This however requires a degree of political vision and cooperation which is not always apparent.

Whitehead and colleagues have spelled out a comprehensive policy response to inequities in health, consisting of four elements, each with a number of strategies (Whitehead, Dalgren & Gilson, 2001). The four elements are:

1. establishing shared values;
2. assessing and analysing the health divide;
3. tackling root causes; and
4. building equitable health care systems.

They emphasize the importance of setting health equity objectives, not only to monitor progress and improve accountability but also for symbolic purposes, to inspire and motivate and provide political direction. This links directly with the need for accurate data. As discussed above, there has been a debate about the methods for measuring health inequalities, and, as yet, it is not standard practice to analyse health and research data by social groupings (Whitehead, Dalgren & Gilson, 2001; Rogers, 2004). Accurate data are also essential for analysing the causes and understanding the pathways between disadvantage and ill health, and so for developing effective ways to tackle the root causes of health inequities. Whitehead and colleagues draw upon a conceptual model of the main determinants of health to identify potential interventions, ranging from healthy macropolicies through to creating supportive environments for behavioural change. Finally, building equitable health care systems requires policies which address barriers to access, the creation of an equity-oriented health system and vigilance in monitoring and protecting equity.

Internationally, there are some encouraging developments with regard to health equity. The 'Target One' of the WHO European Regions Health for All strategy has helped to put equity issues onto the international stage, serving as both a symbolic and a practical goal (Whitehead, Dalgren & Gilson, 2001). More recently, the WHO Commission on Social Determinants of Health was announced in 2005 with the following goals:

1. to support policy change in countries by promoting models and practices which effectively address the social determinants of health;
2. to support countries in placing health as a shared goal to which many government departments and sectors of society contribute; and
3. to help build a sustainable global movement for action on health equity and social determinants, linking governments, international organizations, research institutions, civil society and communities (World Health Organisation, 2005).

CONCLUSION

There is a central conflict with regard to health and health care. On one hand, we have an increasingly individual and technical focus on health, with the promise of personalized treatments such as pharmacogenetic or stem cell therapies, and on the other hand, we have increasing evidence that the social determinants of health are responsible for a great burden of excess morbidity and mortality. We are continuously facing choices about the ways in which we address health problems. These choices will necessarily reflect our underlying ideological, political, social and economic values. There are powerful moral and practical arguments as to why we should attend to the social determinants of health to improve global health and to decrease health inequities, but at present these do not seem to have captured the imaginations of populations and politicians around the world. The current circumstances in which global capitalism exerts a powerful influence upon the shape and functioning of our world seem to mitigate against initiatives to decrease inequities. There are, however, some signs of a sea change, with increasing scholarship and practical moves to conceptualize, describe, analyse and act upon the social determinants of health, and increasing recognition that health equity is crucial for the health of all.

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