The Social Determinants of Health: why should we care?[1]

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1 Introduction

There is a growing body of empirical research into what has become known as the 'social determinants of health' (SDH). The central claim arising from this body of research is that various social factors have a strong influence on population health and on inequalities in health outcomes across social groups. Much of the attention the SDH framework has received from researchers outside the field and the general public has focused on a number of high-profile reports as well as articles in major scientific journals summarising these reports. This work includes most recently and prominently Michael Marmot's report on health inequalities in the UK (Marmot, 2010), the work of the Commission on the Social Determinants of Health (Commission on the Social Determinants of Health, 2008) and the WHO report on the health divide in Europe (WHO, 2014), both chaired by Marmot. These reports put forward a number of policy recommendations based on a specific interpretation of the empirical findings in the epidemiological literature. The recommendations are also based on a number of normative assumptions pertaining primarily to the injustice of social inequalities in health as well as empirical assumptions about the best way to address them.

In this paper, we critically examine the normative underpinnings that lead to these recommendations. Our concern is with a certain framework that we will call the 'health equity through social change model' (HESC), which encapsulates a certain way of thinking about the relationship between social factors and health. This is primarily reflected in the prominent work of Michael Marmot but is also adopted, albeit sometimes only in part and/or only implicitly, by many other social epidemiologists. While this model has been highly influential both within epidemiology and outside the field, its assumptions, especially its normative assumptions, are rarely examined.

We should make clear from the start that we are not unsympathetic to many of the conclusions and recommendations presented in this body of work. In particular, we agree that many of the policy recommendations – such as improvements to people's living conditions and reductions of inequalities in wealth and power – are required as a matter of social justice. However, the way these recommendations are tied to health and health equality in the HESC model is problematic. In this paper, we focus on two issues: first, the (sometimes only implicit) normative judgements

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and assumptions about the (un)fairness of particular health inequalities; second, the policy recommendations issued on this basis. We argue that the normative underpinnings of the HESC model are not sufficiently supported and that the policy recommendations do not necessarily follow from the arguments provided and may be inconsistent.

We begin by summarising the main claims of the HESC model (section 2). Section 3 criticises the account of health equity underlying this model. Section 4 questions the move from these normative judgements to the policy recommendations issued. Section 5 summarises our conclusions and suggests possible ways in which future research could help support the normative conclusions the HESC model seeks to reach.

2 The 'HESC model'

This section first outlines the main empirical findings in the epidemiological literature that identify links between social factors and health outcomes. We then identify and clarify the central normative claims advocates of the HESC model make, which complement the empirical findings. Finally, we sketch the main policy recommendations that are a crucial aspect of the HESC model and summarise the assumptions we are concerned with.

2.1 Concepts and empirical findings

What, exactly, are the SDH and how can they be distinguished from what we might call 'non-social' determinants of health? A wide range of factors appears to fall within the definition of 'social determinants of health'. According to the WHO, the social determinants 'are the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics'.[2] Definitions of the SDH often explicitly exclude the health care system. For example, Gopal Sreenivasan (2008) defines a social determinant as 'a socially controllable factor *outside the traditional health care system* that is an independent partial cause of an individual's health status' (emphasis added). Some of the SDH literature, by contrast, includes health care as a social determinant. For example, the CSDH report notes that the 'health-care system is itself a social determinant of health, influenced by and influencing the effect of other social determinants' (CSDH, 2008, 8).

Diverse empirical studies conclude that there is a correlation between socio-economic status (SES) and/or its various components on the one hand and health outcomes (either in terms of an aggregate measure or with respect to specific conditions) on the other (see Braveman et al. 2011c, for a review and assessment of the available evidence). Perhaps the most dramatic figures cited in the SDH literature relate to differences in life expectancy across different countries. For example, Marmot et al. (2008, 1661) contrast life expectancies of over 80 years in countries such as Japan or Sweden with that of less than 50 years in many African countries. Even within individual, high-income countries, discrepancies in life expectancies between different socio-economic groups can reach similar magnitudes. In Glasgow, for example, male life expectancy is as low as 54 years in the most deprived areas but 82 years in the most affluent (Marmot, 2007, 1153). Importantly, it is not only the case that deprivation or poverty negatively affect health; rather,

[2] http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/

health outcomes are correlated with socio-economic status across the entire socioeconomic spectrum, with step-wise improvements in health outcomes as socioeconomic status increases, even above levels where poverty or deprivation could plausibly play a role. This is referred to as the 'social gradient' in health.

Correlations do not, of course, demonstrate causal connections. While scientific papers on the SDH acknowledge the difficulties in establishing causal connections between different variables and are careful to describe the limitations of the empirical evidence, proponents of the HESC model typically portray these causal connections as straightforward. For example, Marmot et al. state that

> The poor health of poor people, the social gradient in health within countries, and the substantial health inequities between countries are *caused by* the unequal distribution of power, income, goods, and services, globally and nationally […] Together, the structural determinants and conditions of daily life constitute the social determinants of health and *cause* much of the health inequity between and within countries. (Marmot et al., 2008, 1661, emphasis added)

Our aim in this paper is not to dispute the existence of a causal connection.[3] The empirical literature supplements findings about the correlations of various social factors and health outcomes with studies that examine possible causal pathways to demonstrate plausible causal links running from social factors to health outcomes. For example, the role of (lack of) job control and stress as contributing factors in creating health inequalities is highlighted (Sreenivasan, 2008). So we will not dispute that social factors can be seen as the 'causes of the causes' (Marmot, 2013, 289) of health inequalities – even if this is, in Marmot's (2013, 289) words, a 'dubious concept philosophically'. At the same time, it is important to bear in mind the complexities surrounding the causal connections between particular social factors and specific health outcomes, and the different pathways that may be at work. The policy reports we examine tend to de-emphasise these complexities, which – as we argue in section 4 below – becomes particularly problematic when we consider policy strategies to address health inequalities,.

2.2 Normative claims

It is not uncommon among social epidemiologists to make certain (implicit) assumptions about the unfairness of health inequalities (see Mackenbach, 2012, 767). While these may not be accepted by all epidemiologists and are not always explicit, the policy reports we focus on in this paper, and some of the journal articles summarising them, do make explicit normative claims. For example, the report of the Commission on the SDH clearly states that

> Where systematic differences in health are judged to be avoidable by reasonable action they are, quite simply, unfair. It is this that we label health inequity. Putting right these inequities – the huge and remediable differences in health between and within countries – is a matter of social justice. Reducing health inequities is, for the Commission on Social Determinants of Health … an ethical imperative. Social injustice is killing people on a grand scale. (Commission on the Social Determinants of Health, 2008)

[3] For a critique of the causal claims made in this model, see Chandra & Vogl (2010).

Thus the normative judgement that is central to the HESC model is that the health inequalities we find both within countries and at the global level must – to at least some degree – be considered unfair. Hence the reduction of these health inequalities is required, not simply because we want to improve health overall or because we want to avoid the burdens associated with poor health, but rather *as a matter of social justice*. We examine these claims in section 3.

2.3 Policy recommendations

The reports also issue a variety of policy recommendations. For example, the recommendations offered by the Marmot Review on inequalities in the UK are: (1) give every child the best start in life; (2) enable all children, young people and adults to maximise their capabilities and have control over their lives; (3) create fair employment and good work for all; (4) create and develop healthy and sustainable places and communities; (5) strengthen the role and impact of ill health prevention (Marmot, 2010). Generally, the common thread in these reports is the idea that inequalities in health should be addressed by broad policy strategies that can tackle social inequalities: 'The implication we drew from the gradient is that action to reduce inequalities in health has to be across the whole society, not simply to reduce poverty – universalist solutions are needed, not targeted ones' (Marmot, 2013, 287). While the more recent report on the health divide and the SDH in Europe acknowledges that some targeted measures are also needed, it again stresses that they are not sufficient for addressing health inequities:

> one response to addressing health inequalities open to all is to ensure universal coverage of health care. Another is to focus on behaviour – smoking, diet and alcohol – that cause much of these health inequalities but are also socially determined. The review endorses both these responses. But the review recommendations extend further – to the causes of the causes: the conditions in which people are born, grow, live, work and age and inequities in power, money and resources that give rise to them. (WHO, 2014, xiii)

So the assumption here is that, if we are to address social inequalities in health, we must go beyond medical and behavioural approaches and include broader strategies that re-distribute income and wealth and make societies more egalitarian. This assumption is problematic, as we will argue in section 4.

To summarise this section, we identified three main sets of assumptions as central to the model we are examining:

1. A set of empirical assumptions that identify socio-economic circumstances as the ultimate causes – or 'causes of the causes' – of health outcomes and inequalities;

2. A set of normative assumptions to the effect that social inequalities in health are unfair and therefore must be rectified as a matter of social justice;

3. Finally, the recommendation that the best and possibly most effective way of redressing health inequalities is by wide-ranging societal changes, most notably policies that address differences in socio-economic status (i.e. inequalities in the distribution of the SDH).

The last two sets of assumptions and therefore the HESC model can be summarised in the heading used in the WHO report on health inequalities in the EU: 'Health inequalities that are avoidable are unjust: action is required across society' (WHO, 2004, xiv). In what follows, we unpack and examine these assumptions.

3 Health inequalities: what are they and when are they unfair?

The normative assumptions about health inequalities are central to the model. The literature on health inequality distinguishes between those health inequalities that are problematic (unfair, unjust) and those that are not. Often, this is described in terms of the distinction between health *inequality* (which captures all health inequalities) and health *inequity* (which captures those health inequalities that are unfair): 'Health inequality is the generic term used to designate differences, variations, and disparities in the health achievements of individuals and groups… health inequality is a descriptive term that need not imply moral judgment' (Kawachi et al., 2002, p. 647). In this section, we discuss how these distinctions are drawn in the HESC model, so as to make explicit some of the normative assumptions informing the framework and to highlight possible tensions in the model.

3.1 Health inequality: variation across individuals or social groups?

Note, first, that when discussing health inequalities, epidemiologists working within the SDH framework generally envisage health inequalities as differences in average health outcomes between different social groups, such as socio-economic or ethnic groups. There may be good reasons for adopting this approach but it is important to recognise that this is not the only way to understand and measure health inequality. An alternative to comparing average outcomes across social groups – also mentioned in Kawachi et al.'s definition just quoted – is to measure variation in health outcomes across *individuals* in a particular population. This understanding of health inequality was employed in the 2000 World Health Report, following an argument made by Murray et al. (1999). The inclusion of individual measures was motivated in part by perceived weaknesses of group-based measures: such measures average out outcomes for individuals within groups, thereby risking the loss of relevant information and obscuring outcomes for individuals, who are ultimately the locus of moral concern (Murray et al., 1999). At the same time, this approach was criticised sharply by epidemiologists who considered the shift from social group to individual differences to 'effectively remove[] equity and human rights from the public health monitoring agenda' (Braveman et al., 2001, 679). Similarly, Marmot argues that the focus should be on group differences because it is these differences that matter from a normative perspective:

> The causes of individual differences and the causes of group differences, then, may not be the same. In the thought experiment of equalizing all relevant environmental conditions, there would still be individual differences in health. […] it is *social inequalities in health* that exercise me and, if avoidable, that I label as unfair. (Marmot, 2013, 7, emphasis added)

While we do not take a position on this debate, it is important to highlight that this choice is not normatively neutral. The normative commitments underlying this methodological approach are rarely discussed, or even acknowledged, in the literature.[4]

3.2 Avoidability, amenability and the distinction between social and natural health inequalities

How, then, should we decide when health inequalities between different social groups should be considered unfair or, to use Kawachi et al.'s distinction introduced above, how do we determine

[4] For further discussion, see Hausman (2007, 2013), Kawachi et al. (2002) and Lippert-Rasmussen (2013).

when a health inequality should also be considered a health *inequity*? One substantive account of health inequity has been proposed by Margaret Whitehead. Her account features prominently not only in the HESC model but also in other, related accounts (e.g. Braveman et al., 2011b; Braveman & Gruskin, 2003). Whitehead's proposed definition is: 'Equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided' (Whitehead, 1990, 7). She further claims that

> in order to describe a certain situation as inequitable, the cause has to be examined and judged to be unfair in the context of what is going on in the rest of society. (Whitehead, 1990, 7)

She identifies seven main determinants of health (inequalities):

1. natural, biological variation.

2. health-damaging behaviour if freely chosen, such as participation in certain sports and pastimes.

3. The transient health advantage of one group over another when that group is first to adopt a health-promoting behaviour (as long as other groups have the means to catch up fairly soon).

4. Health-damaging behaviour where the degree of choice of lifestyle is severely restricted.

5. Exposure to unhealthy, stressful living and working conditions.

6. Inadequate access to essential health and other public services.

7. Natural selection or health-related social mobility involving the tendency for sick people to move down the social scale.

According to Whitehead, 'the consensus view from the literature' is that factors in categories 1, 2 and 3 would not normally lead to health inequities; health inequalities resulting from determinants 4, 5, 6 and 7, however, are unfair and can therefore be described as 'health inequities' (Whitehead, 1991, 219).

What is then the criterion for distinguishing between these causes? Whitehead clarifies that it is 'avoidability' that is relevant in distinguishing the first three causes from the last four. Similarly, Marmot et al. explain that 'if systematic differences in health for different groups of people are avoidable by reasonable action, their existence is, quite simply, unfair. We call this imbalance health inequity' (Marmot et al., 2008, 1661). This view is not restricted to Whitehead and Marmot; avoidability is regarded as crucial in other accounts of health equity, such as the one proposed by Braveman et al. (2011b).

So, in the HESC model, 'avoidability' appears as both a necessary and sufficient condition for health inequity. In other words, proponents of the HESC model maintain that only and all those health inequalities that are avoidable are inequities. We will argue that 'avoidability', as understood in this framework, is neither necessary nor sufficient.

In order to clarify how 'avoidability' is understood in the model, we should note that it is meant to draw a line between 'natural' and 'social' health inequalities. Whitehead explains that the natural variation between individuals with respect to health outcomes is unavoidable and hence not inequitable. Thus, we must focus on redressing that portion of health inequalities that can be attributed to *social* causes.[5]

The need to address inequalities that have social causes also motivates the focus on inequalities between social groups rather than across individuals that we discussed in section 3.1: the model assumes that what happens across social groups must have social causes, whereas differences *within* those groups reflect natural, biological variation (Whitehead, 1990, 6). Similarly, Marmot (2013, 287-8) explains:

> the causes of individual differences and the causes of group differences… may not be the same. In the thought experiment of equalizing all relevant environmental conditions, there would still be individual differences in health. These may claim attention, both from geneticists and from those who sought to avert genetic destiny by improving the lives of people despite their inheritance, but for clarity I would not use the term "inequality" to describe these genetic differences among individuals. I would not think of the genetic lottery as unfair or unjust.

It is worth noting, however, that inequalities in average health outcomes between different social groups are not necessarily caused by social factors, contrary to what seems to be assumed in the HESC model. Differences between social groups may also have non-social causes. An important example of differences between social groups that seem to result, at least in part, from non-social factors is that of gender. In almost all countries of the world, women have longer life expectancies than men (although the size of this difference varies). But, according to the HESC model, to the extent that this difference has biological rather than social causes, it must be regarded as fair:

> Women, in general, live longer than men. This difference is likely due to biological sex differences, and is not, therefore, inequitable. However, in cases where women have the same or lower life expectancy as men – that is, where social conditions act to reduce their apparently natural longevity advantage – inequality is a mark of inequity. The injustice that the Commission seeks to address comes from failure to achieve levels of health that, but for lack of action, should be attainable. (Marmot, 2007, p. 1155)[6]

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[5] A similar approach is taken by Kawachi et al (2002), who note that health inequalities due to 'pure chance (for example, a random genetic mutation – unlucky but not unjust' should not be considered inequitable. The idea that health inequities must have social causes is explicitly rejected by some contributors to the SDH debate. On Braveman et al.'s (2011b) account, for example, what matters is that 'health disparities are systematically linked with social disadvantage, and may reflect social disadvantage, although a causal link does not need to be demonstrated. Whether or not a causal link exists, health disparities adversely affect groups who are already disadvantaged socially, putting them at further disadvantage with respect to their health… This reinforcement or compounding of social disadvantage is what makes health disparities relevant to social justice even when knowledge of their causation is lacking.'

[6] In other accounts, longer life expectancy is not regarded as a matter of inequity because men, as a group, are more advantaged in non-health areas. Braveman et al. (2011b, S1, emphasis added), for example, note that 'shorter life expectancy among men in general, if likely avoidable, would clearly be an issue of public health importance based

This account of health equity thus presupposes (1) that only avoidable health inequalities can be unfair and (2) that only socially caused inequalities are avoidable. It thus follows that only social inequalities in health are unfair. Both these assumptions are questionable as we will now explain.

First, consider the requirement of avoidability. We should note that an inequality can be avoided in two ways: it can either be *prevented* from occurring or it can be *redressed*. So avoidability can be understood either as *preventability* or as *amenability to intervention.* In assuming that natural inequalities are not avoidable, this account endorses the first sense of 'avoidability'. But if we examine the reasons why avoidability might be considered a necessary condition for unfairness, this conceptualisation seems inappropriate.

A possible reason why avoidability is relevant is the idea that for an outcome to be unfair, it must be possible to alter that outcome.[7] Judging something as unfair implies that it ought to be changed, which in turn implies that it can be changed. But if this is the thought, it does not follow that it is preventability that matters. Instead, we might think, it is *amenability* to change that matters, i.e. whether or not an inequality can be *redressed*.[8] We cannot prevent the rain from falling but we can address (at least some of) its negative effects. So we must distinguish more clearly between avoidability and amenability, where the first refers strictly to preventability and the latter to whether or not an inequality is amenable to intervention.

It is crucial to be clear about which of these two notions is relevant because many unpreventable inequalities are in fact amenable to intervention. In particular, medical interventions can often redress natural inequalities. More generally, even when medical treatments are not available, to the extent that we can *compensate* for inequalities (including those that were unavoidable and cannot be mitigated after the fact), they are, in that sense, amenable to intervention.[9] Thus, by making avoidability rather than amenability (either through direct mitigation of poor health or the provision of compensation) a necessary criterion for unfairness, a number of health inequalities that might otherwise have been considered unfair, such as natural inequalities, are identified as unproblematic. If it is the ability to change inequalities that is relevant in drawing the line between fair and unfair health inequalities, there is no reason why only social, but not natural, inequalities should be seen as unfair.

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on the magnitude of potential population impact. However, men as a group have more wealth, influence, and prestige, so *this difference would not be a social injustice* and, therefore, not a health disparity or equity issue'.

[7] Note that this is different from the thought, famously attributed to John Rawls, that natural inequalities are neither fair nor unfair (Rawls, 1999, 87). This thought does not make avoidability a criterion for fairness; rather, it points to a more general framework according to which justice or fairness are concepts that can only be applied to social institutions. It is unclear which of these ideas is envisaged in the HESC model.

[8] While, as we noted above, avoidability features in a number of definitions of health inequity, other definitions of health inequity seem to stipulate criteria closer to amenability. For example, the International Society for Equity in Health defines equity as 'the absence of potentially remediable, systematic differences in one or more aspects of health across socially, economically, demographically, or geographically defined population groups or subgroups' (cited in Macinko & Starfield, 2002). Remediability is also considered a criterion for health inequity by Starfield (2001).

[9] Of course, neither medical treatment nor compensation may be able to *fully* redress the harm someone suffers because of a health condition so in that sense it may not be fully *avoidable*. However, there is often partial redress that can be provided after the poor health outcome has occurred, even if it could not have been avoided.

In fact, the account endorsed by Whitehead would suggest that the reason why social inequalities in health are unfair is that they are not voluntary: 'where people have little or no choice in living and working conditions, the resulting health differences are more likely to be considered unjust than those resulting from health risks which were voluntarily chosen' (1991, p. 220). But if what makes inequalities unfair is the lack of control or choice over their source, then there is every reason to regard natural inequalities as unfair as well. In other words, the same reason that makes social inequalities in health unfair also makes natural inequalities unfair. But then 'preventability' cannot be a necessary condition for unfairness.

Nevertheless, while it is plausible to regard 'amenability' as a necessary condition for unfairness, even that is debatable. Some philosophers would argue that it is possible to consider an inequality unfair even if there is nothing that can be done about it. Furthermore, the account of health (in)equity underlying the HESC model suggests that avoidability is a sufficient condition; in other words, *all* inequalities in health that can be avoided, i.e. prevented, are inequities. It is, however, not clear why this should be so. Even if we accept that avoidability is a necessary condition for unfairness for the reasons mentioned above, we need a further reason to accept that *all* avoidable inequalities are unfair: the fact that something *can* be done about them is not enough to indicate that it *should* be done.

A possible explanation for the view that avoidability is a sufficient condition for unfairness is an implicit assumption that it is unfair that we, as a society, prevent people from attaining the level of health that they could otherwise attain. But it is not clear that this thought can be supported with arguments. Why is it unfair or at least problematic if people's position in society is reflected in their health outcomes? We examine some possible answers to this question in the next section.

3.3 Socio-economic inequalities, health inequalities and residual inequalities

As we have highlighted, an important assumption of the model is that all health inequalities that result from social inequalities are unfair; it is less clear, however, on what grounds we should come to this conclusion. There are two possibilities, both of which are at times suggested by the HESC model: first, we may judge the distribution of the SDH to be unfair for *independent* reasons and it is this unfairness that makes any resulting inequalities in health unfair as well or, second, the distribution of the SDH may be considered unfair *because* it leads to health inequalities. This second view presupposes that health inequalities are unfair in themselves. Both possibilities raise problems.

The first line of reasoning seems implicit in parts of the CSDH report, which notes that the 'unequal distribution of health-damaging experiences is not in any sense a "natural" phenomenon but is the result of a toxic combination of *poor social policies and programmes, unfair economic arrangements, and bad politics*' (p. 1, emphasis added). However, if we agree that inequalities in the distribution of social factors such as income or status are unjust for independent reasons – as we do – it is not clear why we would focus on *health* inequality rather than social inequality more broadly. Social inequalities ought to be redressed because (social) justice requires it rather than because of their effects on health. We do not deny that showing the effects of social inequalities on health may strengthen the argument for redistribution; however, this cannot be put forward as the main reason for such redistribution unless it can also be argued that inequalities in health are problematic or unjust in themselves.

This is the claim that we will now examine. There is some evidence that the model puts forward this claim, albeit without much supporting argument. For example, Marmot states: 'My position

in the public debate is that, as a doctor, I regard as unfair health inequalities that could be avoidable by reasonable means. Therefore I regard as unfair policies that exacerbate avoidable health inequalities' (Marmot, 2013, 284).

But is there any reason to claim that health inequalities are unfair when they result from a fair albeit unequal distribution of social goods? The literature refers to such health inequalities as 'residual inequalities'. A 'residual inequality' is 'an avoidable inequality in health the causes of which are otherwise fair' (Sreenivasan, 2009, 245). Is there any theoretical framework that can support the claim that these inequalities are unjust? There are very few theories of justice that have addressed this issue and that may be precisely because a theory of social justice may not have much to say about residual inequalities. Theories of justice are usually concerned with 'overall' inequalities, that is, inequalities in the distribution of an overall good, such as well-being, or a package of goods, such as primary goods or even capabilities. As long as the total bundle is equally and/or fairly distributed, there seems to be no reason to be concerned with inequalities in specific goods, such as health.

The two major types of theory that have been applied to the case of health – Rawlsian and luck egalitarian accounts – imply (and their proponents even state explicitly) that residual health inequalities are *not* unfair. According to Daniels, whose work develops a Rawlsian approach to health inequality, 'a health distribution is unjust when it derives from an unjust distribution of the socially controllable factors affecting population health and its distribution' (Daniels, 2008, 27). This means that decisions about the fairness or unfairness of health inequalities depend on a prior normative judgement about the distribution of social determinants from which they result. If the latter are fairly distributed, the former are of no independent moral concern.[10]

According to the luck egalitarian view defended by Shlomi Segall (2009), health inequalities are problematic if they do not appropriately reflect people's choices or effort. The question is then whether the health inequalities resulting from social factors reflect people's choices or effort. On one interpretation, they do if they are the direct (causal) consequences of the distribution of SES and if this distribution reflects people's free choices. Thus, luck egalitarianism could be seen to imply that social inequalities in health are not necessarily unfair (Segall, personal communication). So the concern with social health inequalities that motivates the HESC model does not find much support in the existing philosophical literature.[11]

However, we think that there may actually be scope for supporting such a claim within a luck egalitarian framework. Although it has not been, to our knowledge, developed in the literature, we could envisage an argument to the effect that inequalities in health are of concern even when they result from a *fair* distribution of the social determinants. This argument challenges the

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[10] We should note here that, despite the fact that residual inequalities are not unfair on this account, a universal health care system may still be a requirement of justice. On this, see also the debate between Sreenivasan (2007) and Daniels (2007).

[11] In places, Marmot claims to rely on the normative framework provided by the capabilities approach (Marmot, 2013, 294-5). However, this approach does not provide support for the view that health inequalities are unfair either. Insofar as the capabilities approach calls for an equalisation of any *distribuendum*, it, like other theories of justice, envisages an equal *package* of the relevant goods, in this case a bundle of capabilities. Even if health can be seen as a separate capability, as argued more recently by Sridhar Venkatapuram, there is no argument to the effect that capabilities to be healthy *alone* must be equalised (see Venkatapuram, 2011).

assumption mentioned above, namely that people are responsible for all the consequences of their choices. In other words, it challenges the idea that people are responsible for their health status in virtue of being responsible for their socio-economic position, which has shaped their health outcomes. But this would be a complex and not uncontroversial argument, which would require a closer analysis of the causal pathways leading from social inequalities to health inequalities as well as a consistent account of individual responsibility that may be in tension with the account assumed in the HESC model. We discuss these assumptions about responsibility in the next section. The main aim of this section is to highlight that the proponents of the model should clarify how, if at all, the unfairness of health inequalities relates to the distribution of the SDH.

3.4 Responsibility and individual health behaviour

If health inequalities are not unfair in themselves and they are not unfair in virtue of resulting from an unfair distribution of the SDH, could there be any reason for calling for measures that would address health inequalities via a change in the distribution of the SDH? In other words, what is the rationale for trying to reduce the 'social gradient' in health if the social distribution is just? As we suggested in the previous section, one such reason could be that the distribution of health outcomes is unequal because it does not reflect people's choices *about health.* This broadly luck egalitarian type of argument finds some support in the HESC model. We already noted above Whitehead's claim that 'where people have little or no choice in living and working conditions, the resulting health differences are more likely to be considered unjust than those resulting from health risks which were voluntarily chosen' (Whitehead, 1991, 220). In order to support the view that social differences in health, to wit, the social gradient, are unfair, proponents of the HESC model accept that they must answer the possible objection that (a portion) of these differences are attributable to individual behaviours. If these behaviours are themselves voluntary, the objection would claim, the result is not unfair. In response to this, the proponents of the model challenge the voluntariness assumption and point out that individual behaviours are themselves 'determined' by SES.

We know that many risky health behaviours, such as smoking, tend to be more prevalent in lower than higher income groups and these differences in health behaviours make a significant contribution to social inequalities in health. It is thus crucial for proponents of the HESC model to take a position on whether this portion of the social inequalities in health is unfair.

Health shortfalls resulting from these *patterned* risky behaviours are considered unfair by the HESC model. Whitehead emphasises that some health inequalities resulting from individuals' choices are unfair whereas others are not. Recall that on her account health inequalities resulting from '[h]ealth-damaging behaviour where the degree of choice of lifestyle is severely restricted' should be considered health inequities; health inequalities resulting from 'health-damaging behaviour if freely chosen, such as participation in certain sports and pastimes' (Whitehead, 1990, 5) should *not* be considered inequities.

Proponents of the HESC model seem to assume that the patterning of a particular behaviour is by itself sufficient to establish that behaviour is 'largely determined' by social factors and that, therefore, the inequalities resulting from such patterned behaviours are unfair. Marmot (2007) notes that

> Contemporary public-health interventions have often given primary emphasis to the role of individuals and their behaviours. The Commission recognises the

> important role of these factors, but sets them in the wider social context to illustrate that behaviour and its social patterning … is largely determined by social factors. (Marmot, 2007, 1158-9)

We do not deny the conclusion that social inequalities resulting from differences in health behaviours are problematic; however, the arguments presented to support this conclusion are open to challenges. One objection is that the social patterning of particular behaviours is not sufficient to justify the claim, made by Marmot, that such behaviours are 'largely determined' by social factors – not least because behaviours often vary widely *within* groups. Empirically, the correlation of particular behaviours with social factors is not sufficient to establish causation. Neither does the fact that behaviour is patterned establish the normative conclusion that particular individuals are not *responsible* for their choices.[12]

More importantly, we do *not* need to show, as the HESC model seems to assume, that behaviour is *determined* by social factors in order to conclude that individuals may not be *fully* responsible for the resulting health inequalities. Responsibility is plausibly a matter of degree and most individual behaviour falls somewhere between the fully determined and freely chosen ends of the spectrum. The deterministic language used in the HESC model, coupled with the quick move from social patterning of health behaviours to the absence of individual responsibility, makes the conclusion vulnerable by making it dependent on an implausible but unnecessary claim about determinism.

So, although there is scope for arguing that social inequalities in health are unfair even to the extent that they result from individual behaviour, the social patterning of health behaviours is not sufficient to establish that claim. To assess the fairness or otherwise of health inequalities resulting from behaviours, we also need to know something about the mechanisms that make individuals in lower-income groups more likely to adopt unhealthy behaviours than individuals in higher income groups. The literature has, of course, already identified many such mechanisms for particular behaviours. Consider, for example, the mechanisms that have been proposed as contributors to social inequalities in smoking behaviour, which include tobacco advertising targeting poor neighbourhoods, unequal access to nicotine-replacement therapy and differences in perceptions of tobacco use (Voigt, 2010).

Our main concern arising from the assessment of the normative assumptions of the HESC model we have outlined in this section is that much more needs to be done to establish *why* social inequalities (and only social inequalities) in health are unfair. A coherent view is hard to identify in the literature. What is undeniable is that the *current* distribution of social determinants of health is unjust and needs to be rectified; but this is not for reasons of health (even if the health benefits of a fairer distribution would of course be welcome). In order to argue for a general restructuring of society on the basis of a social gradient in health, it must be argued that health inequalities are unfair or unjust. Such an argument is not inconceivable but it is complex and open to challenges. However, even if the normative claims are established, the policy recommendations put forward by this model do not necessarily follow, as we explain in the next section.

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[12] For discussion of relevant questions about possible links between responsibility and patterned behaviour, see also Scanlon (1995).

4 Moving from judgements about fairness to policy recommendations

As we discussed in section 2 above, the HESC model includes a variety of policy proposals, ranging from the redistribution of power and wealth to improvements in housing. The idea that social inequalities in health can only be addressed through action on the social determinants of health is a crucial aspect of the model. As Venkatapuram and Marmot (2009, 86) explain, 'It is always implicit in the SDH literature that the logical social response to the identification of social determinants of ill-health is to transform them'. These recommendations are framed in the language of justice: it is required as a matter of social justice that we implement policies that change the SDH in ways that will reduce health inequalities. However, as we argue in this section, this argument moves too quickly. We already argued that, even if it is the case that health inequalities are unfair, it does not follow that they ought to be redressed by altering the distribution of the SDH, if the SDH themselves are not unfairly distributed. This section discusses a number of philosophical and empirical reasons for resisting the policy recommendations issued as part of the HESC model.

First, even if we accept that empirical assumption that social factors are 'the causes of the causes', it does not follow that the most effective way to alter health outcomes is to alter the 'ultimate' causes (Broadbent, 2012). Furthermore, the way the policy recommendations are presented does not appropriately reflect the uncertainties surrounding the empirical research on different population-level interventions. Assessing the effectiveness of interventions that address social determinants of health when it comes to reducing social inequalities in health presents a number of methodological problems. The standards of evidence that have become prominent in medical contexts cannot be straightforwardly applied to population-level interventions and because of differences in contextual factors, an intervention that works well in one place can fail in another (Braveman et al., 2011a; Broadbent, 2013).

Second, empirical data shows that in European countries social inequalities in health have persisted and in some cases even widened while expansions of the welfare state have reduced inequalities in income and wealth (Mackenbach, 2012). Evidence from the UK, where there has been perhaps the most sustained effort to reduce social inequalities in health through large-scale social interventions, suggests that these efforts have had disappointingly small effects on social inequalities in health, with inequalities in some indicators not only stagnating but in fact widening (Mackenbach, 2010). Such considerations should make us less confident that large-scale social policies will indeed have the desired effects on social inequalities in health.

Now, of course, it is not clear how to interpret the evidence on associations between inequalities in income and wealth and social inequalities in health (Mackenbach 2010). One possibility is that we simply have not yet seen large-scale social changes of the sort envisaged by proponents of the HESC model. However, it is arguably unrealistic to expect such pervasive changes in the current political climate. This underscores the need not only for a clearer understanding of how different kinds of social policies are going to affect health inequalities but also for clearly communicating the complexities and uncertainties surrounding this question to policy-makers. The move from empirical observations about the effects of the SDH on health outcomes to the conclusion that changing the distribution of the SDH is clearly where we should intervene is, therefore, problematic.

The claim that policies that reduce the unequal distribution of social determinants of health are the most effective way of intervening so as to improve health outcomes and/or to reduce social

inequalities in health seems particularly problematic when it comes to outcomes that involve health behaviours. Consider, for example, tobacco use, which in many countries is a major contributor to differences in health outcomes across social groups. Even commentators who emphasise the importance of social factors contributing to the patterning of smoking – such as targeted advertising, resource constraints in accessing cessation aids – are sceptical that changes to these social factors would be effective in bringing down smoking rates in low SES groups, particularly in the short term. For example, Hilary Graham, whose seminal study on tobacco use among working-class mothers highlights the many ways in which living conditions in deprived areas sustain smoking practices, advises caution with respect to the efficacy of policies that address these living conditions:

> Given that smoking is addictive and that both disadvantage and smoking have long-term and cumulative effects on health, an improvement in socio-economic circumstances is unlikely to result in either an immediate reduction in smoking or an immediate improvement in health. (Graham, 1998, 299)

Even when individual behaviour does not intervene in the link between social factors and health, there may be other measures a government can take to improve people's health, as Jonathan Wolff points out based on the findings in the SDH literature (Wolff, 2011). For instance, government – or even local authorities – can provide people with the opportunity to rest or perhaps, on the contrary, to continue working after retirement, depending on what would be beneficial for their health (Wolff, 2011). Such small-scale interventions may be more effective in improving people's health outcomes as well as reducing health inequalities and they may also be more realistic policy options, especially in the short term.

To repeat, we believe that many of the policies recommended as part of the HESC model are required, *as a matter of social justice*. It is the way these policies are linked to inequalities in health that we find problematic and potentially counterproductive. As Wolff puts it, it may present the Minister for Health with a dilemma in that she will have to argue for the diminished importance of her own domain (Wolff, 2011, 1) and this would be counter-productive. Furthermore, recommending particular policies as a means to bringing down social inequalities in health despite on-going uncertainty about their effectiveness in achieving this goal may lead to frustration, both by policy-makers and the general public, when health inequalities remain the same or even increase, in the face of large-scale policy initiatives. If, on the other hand, we argue for these policies as redressing social injustice *simpliciter*, noting health effects as a possible though not certain 'side-effect', that problem is less likely to arise.

A further complication regarding the policy recommendations issued as part of the HESC model concerns the precise goals to be pursued through policy interventions and the relationship between these goals. Two goals in particular are emphasised by proponents of the model: improving population health and reducing health inequalities (see also WHO, 2014, xv). The possibility that these two goals might diverge is sometimes acknowledged but when issuing policy recommendations, proponents of the model suggest that improvements in overall health and reductions in health inequalities tend to come together:

> We should have two societal goals: improving health for everybody and reducing health inequalities. Others may see them as being in conflict, but they are two separable goals. Both are worthy and should be pursued. I have never argued that an overall improvement in health should be sacrificed in the pursuit of narrower health inequalities. Given my general thesis that, to oversimplify,

> good health results from a good set of social arrangements, I would look to sacrifice other social goals (a self-serving movement towards making the tax system less progressive, for example) before accepting that there had to be a tradeoff between these two health goals. (Marmot, 2013, 283)

However, it is not clear that that these two goals can be simultaneously achieved in practice; it is certainly not uncommon in public health contexts that interventions, even if they lead to benefits for all relevant groups, benefit these groups unequally so that inequalities increase as a result (Mechanic, 2002). This is in fact what seems to have happened to life expectancy across different social classes in the UK over the period of substantial investment in large-scale policies to reduce health inequalities (Mackenbach, 2010, 2012; Department of Health, 2009).

It may of course be possible to level down – i.e. to reduce inequalities in health and flatten the social gradient by reducing the life expectancy of those at the top. But this is clearly not what proponents of the HESC model suggest. The thought is probably that aiming to bring everyone up to the 'highest possible level' of health – to use the language of human rights – or 'up-equalising' – will also reduce health inequalities, which is true. But this is an unrealistic aim, both in theory and in practice: if we seek – and succeed – to improve everyone's health outcomes, including those at the top, while also equalising them, there is no logical end to this aim. Furthermore, even if this was possible it is not clear that we should pursue it as a matter of justice once we take into account other considerations of justice.[13] In practice, of course, up-equalising is likely far too expensive a goal to be adopted by any government. So these two goals may conflict and just assuming that they tend to run in tandem glosses over the normative question of how to weigh improvements in overall population health against reductions in health inequalities when such conflicts occur.

5 Conclusion

In this paper, we examined the framework for thinking about fairness in health that informs many of the high-level reports and policy documents issued by a number of international bodies. This framework starts from a number of empirical findings that document the influence of social factors on health outcomes and health inequalities and draws certain policy conclusions via a number of – often implicit – normative assumptions. We argued that these normative assumptions need to be clarified and supported with clearer arguments.

While we agree with many of the conclusions drawn by proponents of the HESC model, accepting these conclusions without a solid philosophical argument may lead to unclear and possibly even contradictory prescriptions. The role of social factors in creating health inequalities is important and should not be overlooked. But it is also important to understand exactly what is problematic about the ways in which social factors shape health outcomes. If the social factors themselves are unfairly distributed, calling for their redistribution for reasons of health may detract from important social justice concerns. Addressing inequalities in income and wealth, for

[13] For instance, up-equalising health outcomes might require an unequal distribution of educational resources or opportunities and this may be judged to be unjust (Sreenivasan, 2012). More generally, the pursuit of equality in health may conflict with what justice requires in other areas. But this is a larger issue that we cannot address fully here.

instance, is an important justice concern, regardless of its effects on health or health inequalities. But it may be damaging for health to suggest that only far-reaching societal changes can lead to improvements in this area.

Although we agree with Marmot (2013, 282) that thorough philosophical discussion and ethical analysis is beyond the scope of policy reports, building into these reports a consistent account of what justice requires in the area of health can only strengthen the recommendations offered. Addressing these questions requires collaborative attention from both philosophers and epidemiologists. Our aim in this paper has been to indicate some promising avenues for such work.

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