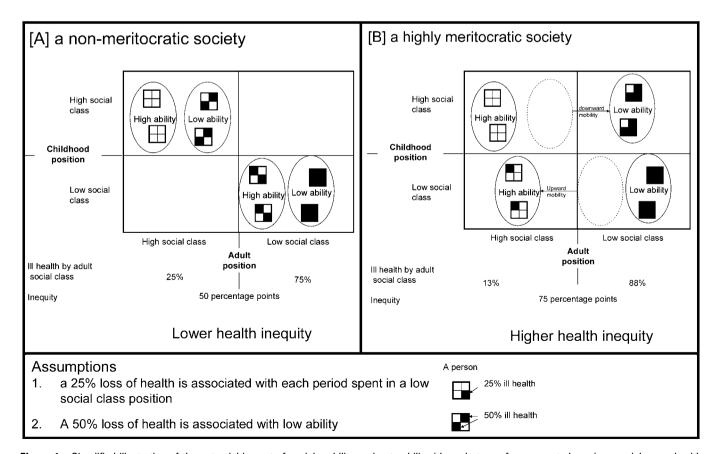
## Are socio-economic groupings the most appropriate method for judging health equity between countries?

In recent years, a number of major studies have suggested, paradoxically given their focus on equity, that the Nordic welfare states do not have the lowest (relative) socio-economic health inequity in Europe.<sup>1–3</sup> We wish to argue that this could be an artefact of the method employed in such studies. In short, the composition of socio-economic groups within a country is itself a product of the welfare state type under investigation. This makes it very difficult to evaluate welfare states by studying socio-economic group difference in health within countries and then comparing this difference between countries, the method commonly used.

There are a number of ways in which the policies of different welfare states could influence the composition of apparently similar socio-economic groups. One example is the extent to which children, irrespective of background, are able to achieve their educational potential and then a job matching this ability. In a meritocratic society, the achievement of socio-economic position will reflect ability, irrespective of background, and there will, therefore, be a greater variation in ability, between social groups, than in a society with less social mobility. Importantly for studies of health equity, if ability were to have an impact on

health that was independent of socio-economic position, then in a meritocratic society there would also be a concentration of ability-related health in higher socio-economic positions. In a less meritocratic society, ability-related health benefits would be distributed more evenly between socio-economic groups and would therefore contribute less to health inequity. The socially mobile will spend time in different socio-economic groups and will therefore experience varying levels of health benefit and harm associated with those groups. Where the harm to health related to living in a lower socio-economic group is high it may well dwarf any ability-related health benefits. In this instance, there may actually be very little difference in socio-economic group health inequity between societies with different levels of social mobility but similar levels of health benefit and harm associated with particular socio-economic groups. However, as a society reduces the absolute and relative concentration of the determinants of ill health in particular socio-economic groups, then the impact of ability, if it has an independent effect on health, could become increasingly pronounced in societies with a higher social mobility. A simplified illustration is given in

It seems possible that social mobility might explain at least some of the paradoxical results of recent studies. There is growing evidence that ability may shape health. For example, work on cognitive ability finds that greater early life intelligence is associated with decreased adult mortality risk independent of potential confounders. There is also evidence that social mobility is higher in Nordic welfares states and lower in countries such as France, Germany and Italy that appear to have health inequities as low as or lower than those in the Nordic



**Figure 1** Simplified illustration of the potential impact of social mobility owing to ability (the only type of movement shown) on social group health inequity measurement, if there were an independent effect of ability on health.

welfare states.<sup>3</sup> The apparently similar or wider relative health inequity in the Nordic welfare states might simply be due to their achievement of a more meritocratic society with a fairer distribution of the social determinants of health than other European states. If this were the case, it would seem strange to suggest that these welfare states were less health-equitable.

It has been suggested that social mobility might reduce health inequity. This argument has been based on the empirical finding that those moving socio-economic groups have, on average, health that is either slightly worse than the socio-economic group they are moving up towards or slightly better than the group they are moving down into, and this will therefore pull groups towards the average and therefore narrow the gap. However, this ignores the counterfactual situation where no movement took place. The narrowing, in terms of what might have existed, would only occur if the downwardly mobile would have had better health, if they had stayed in their group of origin, than the upwardly mobile actually achieve and vice versa. This is only likely if social mobility was unrelated to an individual's present or future health. If the mobility was related directly to health or, for example, ability, with an independent effect on health, then the resulting gap in health would be wider than that which would have existed if the movement had not taken place. A wider health gap, owing to social mobility, has been empirically shown.8

An alternative to the socio-economic group approach, for measuring health inequity, involves comparing the distribution of health across individuals. For cross-national comparisons of health inequity, this avoids the inherent difficulties of the socioeconomic approach we believe exist. When previously proposed, our alternative was criticised for both ignoring social group differences and measuring inequalities that are not inequities. 10 We argue that both claims are false. Classically the difference between inequities and inequalities hinges on whether differences are inevitable and unavoidable, or unnecessary and unfair. 11 However, the risks to health that researchers wish to ignore in equity measurements should be random within countries and therefore constant between them. Where they vary, this is almost always as a consequence of issues of equity concern. To elaborate, inevitable and unavoidable differences will occur in effect at random in large populations unless there is a social process intervening between them and the population. If there is such a process, then this is an issue of equity and is a type of variation that should be measured. Variation owing to differences in behaviour, it has been argued, should be judged by whether the behaviour has been 'freely taken' or not. 11 Yet, it is difficult to see how systematic variations in health risk, between countries, can be due to 'freely taken' behaviour. Variations in 'freely taken' health risks should be very similar between countries unless there is some factor specific to that country or location that makes them more likely. If this is the case, then the risk is clearly due to the individual's country or location, not their free choice. The variation observed must therefore be due to differences in those societies, not between individuals, so we contend that studying individual variation is a social determinants approach. Clearly, social, and other, group comparisons will still be essential for understanding the sources of within country variation, to enable, for example, the targeting of resources or the analysis of policy impact. The individual disparity approach, however, allows us to compare health inequity across societies.

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