Reviewer’s report

Title: Concepts of social epidemiology in health services research

Version: 2  Date: 31 December 2014

Reviewer: Peter Goldblatt

Reviewer’s report:

1) This paper provides a useful overview of some social epidemiology terms and concepts that are important in conducting health services research. There are a number of additional points which need to be made about each of the concepts presented in the paper (major revisions) as well as some additional concepts of equal importance to those included in the paper (discretionary revisions). These are listed below.

Major revisions

2) There are two components to health inequalities - those deriving from social inequalities that could, at least in principle, be avoided through changes in the organisation of society, and those that are not avoidable by reasonable means. The latter include biological differences that are more or less immutable (for example, those gender differences that result from the biological differences between men and women, genetic diseases specific to certain ethnic groups such as thalassaemia). The former, avoidable health inequalities, are usually termed health inequities and are important for the reasons outlined in the paper. The latter are also important for health services research in determining whether adequate provision is made by health services for screening and treating immutable inequalities. The latter has a social dimension e.g. ensuring women do not experience barriers in accessing cervical and breast screening/treatment services, particularly if they lack skills, knowledge resources. Similar comments apply to diseases associated with minority or deprived ethnic groups - where it may not be cost-effective for the health system to provide these services locally.

3) In discussing the relevance of social inequalities to health service research, as well as discussing utilisation and access, it is also important to include discussion of the distorting effects of supply and demand. Those populations with greater levels of skills, knowledge and resources will demand more health service provision. This will result in both a greater geographic concentration of supply and a greater market driven response to their demand (Tudor Hart’s inverse care law). This will generally distort the supply that is available to those less well placed to express demand. For example, in marketised health services, this will lead to a greater focus on less effective screening and testing than is optimal for overall population-wide health improvement. In universal, tax or insurance based systems, it will mainly lead to greater demand rather than needs based utilisation.
4) The impact of social relationships on health needs to be more finely differentiated, both in terms of the type of relationships that affect health and the point at which they affect the patient pathway. The strongest evidence for an impact of relationships on health lies (i) in the size and intensity of social networks (ii) the practical and financial support that is provided within families during hard times (unemployment, bereavement, etc,) (iii) social isolation, particularly among the elderly. In terms of the patient pathway, the paper focuses on access to services. Equally important for health services is the availability of social support during or after treatment for major illnesses. This affects the likelihood of patients being treated or recovering in the community and reduces the use of hospital beds - which is both more expensive and has worse outcomes for patients. This applies particularly to frail or elderly patients.

5) The relevance of social capital to health is less clear in the literature than other concepts discussed in the paper. While some papers show positive benefits, others show no effect or even an apparent negative effect. This may be due to the need to differentiate the type of social capital involved. For example, stronger social relationships in unhealthy communities can lead to greater transmission of infectious diseases and the adoption of peer-led unhealthy behaviours. People who lack trust but live in a community with a high aggregate level of trust are less likely to experience good health than trusting individuals in a community with a low aggregate level of trust.

6) Work stress is tremendously important and its social dimension is not well-recognised. But it needs to be placed in the wider context of the social factors influencing work and employment related health more generally. Thus, health services research also needs to take account of the adverse impact of unemployment and insecure employment on health as well as the social differentiation of exposure to physical and chemical hazards in the workplace (including the risk of workplace injuries and risk-related behaviours more generally - for example, historically, the synergy between smoking and asbestos exposure). A specific issue, therefore, for health services research is the availability and adequacy of occupational health services and appropriate preventative advice.

Discretionary revisions

7) The paper is not (and should not be) a textbook of all concepts in social epidemiology related to health services. However, the author may wish to consider some of the following concepts

(i) social determinants framework

The concepts discussed do not exist in isolation but are structurally linked in casual pathways. One such framework, Dahlgren and Whitehead's (1991) 'Policy Rainbow', which describes the layers of influence on health distinguishes distal and proximal influences. Most health services recognise the proximal influences, but struggle to move upstream to the more distal influences. Similarly the WHO Commission on the Social Determinants of Health framework (2008) identifies
the interactions that take place in the casual pathway to health - health services both influence social inequalities and their effectiveness is constrained by the social determinants.

ii) The life course

None of the concepts in the paper act instantaneously on health status. Factors affecting health and well being accumulate across the life course. This means that two individuals with similar cross-sectional characteristics may have very different levels of health and risks to future health because they have very different social histories. (starting with Barker’s concept of the long shadow of conditions in the womb and continuing with successive hazards in early childhood and adulthood). While health services are adept at taking medical histories, they may be less attuned to taking social histories. Conceptual models can be found in "Fair societies, Healthy Lives (2010) and the WHO European Region review of Social determinants and the ghealth divide (2014).

(iii) Exclusionary processes

Those who are socially disadvantaged are subject to multiple exclusionary processes. Those who are subject to the greatest number and intensity of exclusionary processes suffer the worst health and health care. Even in "universal" health systems with over 90% coverage, it is those who are not covered who have often suffered many other forms of social exclusion. Commonly quoted examples include Roma populations, irregular migrants, homeless persons, sex workers, etc. Health Services research that is based on population covered by universal systems will exclude high risk populations.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have undertaken work commissioned by WHO, the European Union and Governments on the social determinants of health.