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## Editorial: Whither Studies on the Socioeconomic Foundations of Population Health?

While observations on the socioeconomic patterning of health and disease extend back centuries, recently there has been an explosion of interest in the topic. To convey the magnitude of this increased interest, we searched MEDLINE for publications since 1969 that included as descriptors the terms "socioeconomic factors," "social class," "income," or "poverty." The number of publications so described increased dramatically (by 58%) during the last decade, and there are now over 170 per month (Figure 1). Three papers in this month's Journal—by McDonough et al.,<sup>1</sup> Power et al.,<sup>2</sup> and Kawachi et al.<sup>3</sup>—and the related comment by Wilkinson<sup>4</sup> add to the number. Their simultaneous publication provides a matrix within which we can locate conceptual and methodological issues that need to be addressed in this expanding area of research.

### *The Papers*

McDonough et al.,<sup>1</sup> in a clever use of data collected as part of the Panel Study of Income Dynamics, disclose important and considerable temporal variability in income. Indeed, 12% of their sample had one or more income drops of at least 50% during the 5-year windows used in their analyses. Studies that use a single-time measure of socioeconomic position may misclassify income level and ignore potential health effects of income instability. The analyses of McDonough et al. show the impact of sustained low income on mortality risk, as well as an independent effect of income declines on those with middle incomes. They provide interesting speculation about why income reductions

might influence risk of death in middle-income but not in lower- or upper-income groups. The data to test these hypotheses must be awaited.

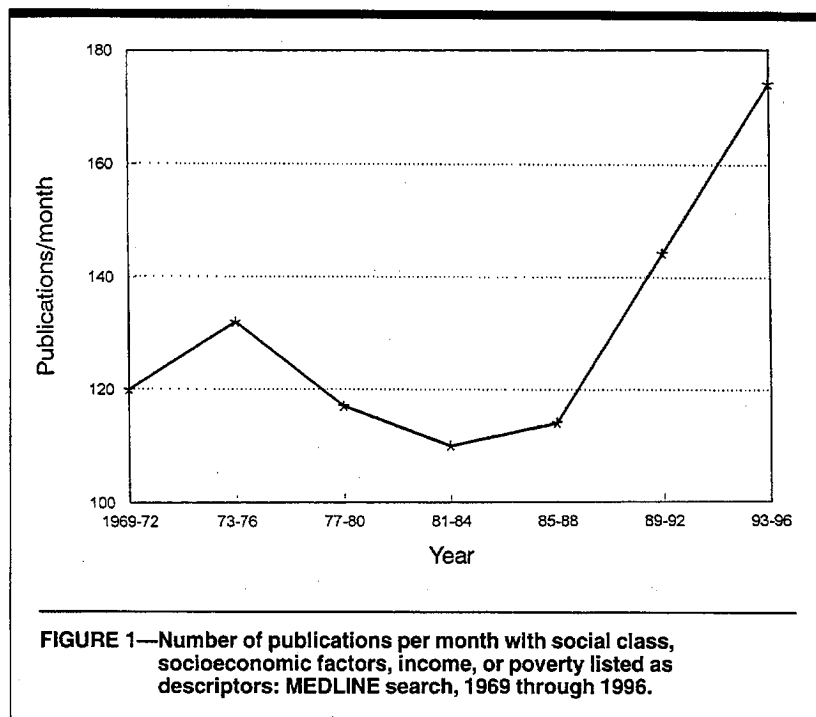
Power et al.<sup>2</sup> also concern themselves with issues of time, but they track socioeconomic inequalities in health during the decade following age 23. They make the insightful observation that entry into different stages of the life course may carry new sets of exposures that may widen socioeconomic differentials in health. In this case, passage through the 20s and the attendant variability in job security, income, and other rewards from work could amplify the impact of educational achievement. To the extent that differences in educational achievement reflect social class at birth, we would expect to see widening socioeconomic inequalities in health during this phase of life. Power et al. find strong inequalities in health at age 23, in relationship to social class at birth, and a fluctuating pattern of association between the ages of 23 and 33. Their conclusion that "health inequalities are reproduced through varied and complex pathways" is an important warning to those who would seek a single explanatory factor that underpins these inequalities across time and place.

Kawachi et al.<sup>3</sup> and Wilkinson<sup>4</sup> consider declining social cohesion and social capital and their influence on population health. They define social capital by measures of trust, helpfulness, and group membership. Kawachi et al.

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**Editor's Note.** See related articles by McDonough et al. (p 1476), Power et al. (p 1499), and Kawachi et al. (p 1491) and comment by Wilkinson (p 1504) in this issue.





demonstrate that variations in social capital constitute a pathway linking inequality in income distribution with mortality. Their results provide important support for Wilkinson's focus on the psychosocial consequences of relative income. Kawachi et al. also point out the importance of time. In this case, the emphasis follows from the need for longitudinal analyses to disentangle the potential bidirectional flow between income inequality, social capital, and other aspects of societal behavior.

### Conceptual and Methodological Issues

#### Secondary Data Analyses

All three papers make use of data not originally collected for the purposes of their analyses. Use of existing data sets can provide important and cost-effective approaches to understanding socioeconomic inequalities in health. An important lesson is that none of these analyses would have been possible if information on socioeconomic stratification had not been available. Socioeconomic status is as important a predictor of health as smoking and, like smoking status, should be routinely collected in all health studies.

However, these studies all suffer the usual and vexing problem of missing variables. In McDonough et al.'s analyses

based on data from the Panel Study of Income Dynamics, the data on health status are thin; in Power et al.'s analyses of the 1958 birth cohort in Britain, little information is presented on the economic and occupational trajectories of the cohort; and the General Social Survey, used by Kawachi et al., contains little information on other measures that might be related to both income inequality and mortality. Thus the advantages of secondary analyses are balanced against a lack of data, which could be crucial in understanding inequalities in health and their evolution.

#### Time and the Life-Course

Understanding the dynamic aspects of the relationship between socioeconomic position and health seems crucial. The problem is far more important than the merely technical issue of misclassification arising from a one-time measure of a time-varying parameter. In the traditional prospective epidemiological cohort study, exposure measures are obtained once at the outset and related to the relative probability of a subsequent health event. Such a measure is ill suited to understanding either the reciprocal ways in which wealth and health affect each other or the impact of these two factors on the evolution and maintenance of risk factors. Longitudinal panel studies with repeated

measures over time are needed to help us begin the sorting out of the causal texture of these relationships.

Both Power et al. and McDonough et al. frame their analyses within particular stages of the life course, the former considering young adulthood and the latter middle age to 65 years of age and older. A growing literature has focused on the impact of early socioeconomic position on later health<sup>5</sup> and on the health consequences of socioeconomic trajectories.<sup>6,7</sup> An important research area that has been underexplored, however, is explicating the ways in which the impact of socioeconomic factors on health changes across different stages of the life course.

#### Community, Social Capital, and Health

A long tradition of social epidemiological work links the organization of social life to health. Work that links Coleman's concept of social capital,<sup>8</sup> other approaches to civic society,<sup>9</sup> and social cohesion<sup>10</sup> to the health of populations continues on that course. Certainly, strong evidence links a relative absence of social ties and a raised level of distrust to risk of adverse health outcomes. The new emphasis on social cohesion is not without its problems, however. There is no unanimity either about the meaning of social cohesion or about whether it has declined.<sup>11-13</sup> We need to be wary of romanticizing some past era when society "worked." Indeed, it may have worked only for the dominant groups; for many who were not in the dominant economic, racial, religious, ethnic, or gender group, society did not work well at all. Furthermore, the consequences of social cohesion may be good or bad, depending on issues of ideology and power.<sup>14</sup> This century has had far too many instances of cohesive groups' committing sins against the public's health. We need to integrate the horizontal framework of social capital with the vertical framework of economic and political capital, because the health effects of social cohesiveness may vary widely depending on who is doing what to whom.

Still, an increasing number of studies suggest that community socioeconomic characteristics, independent of individual characteristics, are importantly related to health outcomes.<sup>15</sup> For the most part, however, these studies do not really characterize communities, relying instead on simple administrative definitions of geographic areas. Despite these encouraging studies, convincing work in this area



awaits the availability of databases with good measures of community life in meaningfully defined communities for which there are measures of health outcomes. Given such data, a fuller investigation of the interrelationships between social cohesion, economic and political structure, and health should be possible.

### *Macroeconomic Factors and the Society at Large*

Work on the relationship between income inequality and mortality outcomes<sup>16,17</sup> needs to be seen within the context of growing inequalities of income and wealth in many countries. For example, in the United States, inequality in the distribution of wealth reached a 60-year high in 1989.<sup>18</sup> Kaplan et al. provide evidence that this trend may have had an important impact on secular trends in mortality.<sup>16</sup> In an era characterized by downsizing, reductions in benefits, globalization, use of temporary workers, and welfare "reform," there is an urgent need to document and understand the impact of these economic and social policies on the health of the population. A full understanding of the health impact of these changes is an important step toward drawing economic and health policy together.

### *Socioeconomic Position and the Epidemiology of Everyday Life*

A common feature of these three studies is that we know little about the ways in which economic transitions, entry into and movement through the labor force, and income inequality influence health. For example, what makes the difference in the lives and health of those who have consistently low incomes or those who have income reductions of 50% or more? How does parental social class influence educational achievement and movement into the labor force, and how does everyday life vary as one moves on

different occupational trajectories? How does inequality in the distribution of income translate into lower social participation and trust? How does ordinary life differ among groups in which basic material needs are met, but that differ by income level? And how do these differences in the texture of everyday life translate into socioeconomic inequalities in health?

Understanding the answers to questions such as these, at both the individual and community level, may be critical to our understanding of the links between socioeconomic position and the health of individuals and societies. While these three papers and Wilkinson's comment represent important and provocative contributions, there is much work to be done to clarify the economic, behavioral, social, psychological, and community dynamics that underlie inequalities in health. While it is tempting to focus on the biological pathways that "explain" how inequalities in health are manifested in individuals, it is likely that only an understanding of economic, behavioral, social, psychological, and community dynamics, and their causes, will lead us to remedies. □

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## Editorial: The Body Politic and the Power of Socioeconomic Status

Information abounds on the ways in which socioeconomic characteristics, including social class, affect health and mortality.<sup>1-3</sup> The article by Hemingway et al. in the current issue is the first to look explicitly at the relationship, in a cohort study, between socioeconomic status (SES) and health functioning, as measured by a scale (the SF-36).<sup>4</sup> The relationship is

examined in the presence and absence of measured disease states in an employed, working-age population. While the outcomes of the study are not surprising—the familiar relationship between SES and health-status gradients is observed—this "first take" should open the door to more complex analyses of the SES-health functioning relationship in continuing

observations of this cohort. The paper gives a graphic sense of how the penalties exacted by positions of occupational and economic dominance and subordination are transmuted into hierarchies of function-

**Editor's Note.** See related article by Hemingway et al. (p 1484) in this issue.

