

# McKeown and the Idea That Social Conditions Are Fundamental Causes of Disease

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In an accompanying commentary, Colgrove indicates that McKeown's thesis—that dramatic reductions in mortality over the past 2 centuries were due to improved socioeconomic conditions rather than to medical or public health interventions—has been “overturned” and his theory “discredited.”

McKeown sought to explain a very prominent trend in population health and did so with a strong emphasis on the importance of basic social and economic conditions. If Colgrove is right about the McKeown thesis, social epidemiology is left with a gaping hole in its explanatory repertoire and a challenge to a cherished principle about the importance of social factors in health.

We return to the trend McKeown focused upon—post-McKeown and post-Colgrove—to indicate how and why social conditions must continue to be seen as fundamental causes of disease. (*Am J Public Health*. 2002;92:730–732)

## THE MCKEOWN THESIS STATES

that the enormous increase in population and dramatic improvements in health that humans have experienced over the past 2 centuries owe more to changes in broad economic and social conditions than to specific medical advances or public health initiatives.<sup>1</sup> The thesis gives center stage to social conditions as root causes of the health of populations. On the basis of new data and numerous revisitations, however, Colgrove<sup>2</sup>

tells us that the thesis has been “overturned” and the theory “discredited.” Whither, then, the idea that social conditions require prominence in any complete understanding of the health of populations? When we turn away from “the thesis,” do we accept an “antithesis” asserting that the role of social conditions is insignificant?

## WHY SOCIAL CONDITIONS REMAIN IMPORTANT

To answer this question, we turn to a central element of the thesis. McKeown is frequently cited for the relatively small role he assigns to specifically health-directed human agency—to purposive action initiated by medical and public health practitioners. For example, Colgrove characterizes the McKeown thesis as follows: “. . . the rise in population was due less to human agency in the form of health-enhancing measures than to largely invisible economic forces that changed broad social conditions.”<sup>2(p725)</sup> In this construction, if social conditions gain explanatory prominence, human agency loses it. We believe this formulation needs to be turned inside out to assert that as health-directed human agency gains explanatory prominence, so do social conditions.

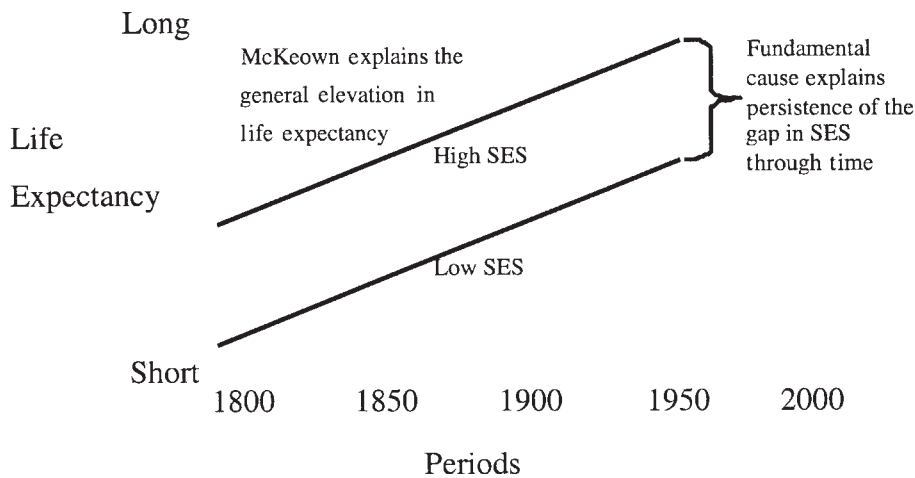
Our “fundamental social causes” approach argues that, when a population develops the wherewithal to avoid disease and death, individuals' ability to

benefit from that wherewithal is shaped by resources of knowledge, money, power, prestige, and beneficial social connections.<sup>3–6</sup> People who command more of these resources are able to gain a health advantage—that is, to benefit from the fruits of “human agency for public health” to a greater extent than people who are less well endowed with respect to these resources. Resources are important in at least 2 ways. First, resources directly shape individual health behaviors by influencing whether people know about, have access to, can afford, and are supported in their efforts to engage in health-enhancing behaviors. Second, resources shape access to broad contexts such as neighborhoods, occupations, and social networks that vary dramatically in associated profiles of risk and protective factors. Housing that poor people can afford is more likely to be located near noise, pollution, and noxious social conditions; blue-collar occupations tend to be more dangerous than white-collar occupations, and social networks with high-status peers are less likely to expose a person to secondhand smoke.

As a consequence of these processes, access to a broad range of circumstances that affect health are shaped by socioeconomic resources. Examples include access to the best doctors; knowing about and asking for beneficial health procedures; having friends and family who

support healthy lifestyles; quitting smoking; getting flu shots; wearing seat belts; eating fruits and vegetables; exercising regularly; living in neighborhoods where garbage is picked up frequently, interiors are lead-free, and streets are safe; having children who bring home useful health information from good schools; working in safe occupational circumstances; and taking restful vacations. Critically, the reason social conditions are always prominent and always important is that resources shape access to health-relevant circumstances, whatever the list of such resources happens to contain in a given time or place.

Thus, socioeconomic resources were equally as useful in avoiding the worst sanitation, housing, and industrial conditions of the 19th century as they are in shaping access to the current circumstances just enumerated. In the future, as new discoveries expand our ability to control disease processes, new items will be added to the list of health-enhancing circumstances, and, our theory says, people who command more resources will be advantaged in benefiting from the new knowledge we obtain. For this reason, social conditions have been, are, and will continue to be irreducible determinants of health outcomes and thereby deserve their appellation of “fundamental causes” of disease and death. Social conditions achieve this status not because they are independent from and



Note. SES = socioeconomic status. The diagram seeks to illustrate the issues and not to precisely describe actual patterns over time.

**FIGURE 1—Illustration of differences between the problem addressed by McKeown and the problem addressed by the fundamental causes approach.**

dominate over human agency but rather because they shape the distribution of the health-enhancing circumstances that health-directed human agency provides. It is effective human agency directed toward enhancing health that ensures the fundamental importance of social conditions in patterns of disease and death.

### EXPLAINING GRADIENTS—EXPLAINING LEVELS

But the astute reader will recognize that we have engaged in a shift of focus away from the problem McKeown addressed. McKeown's thesis concerned the importance of social and economic conditions for absolute levels of population health over time. In contrast, the "fundamental cause" perspective seeks to explain the persistence over time of associations between social factors like socioeconomic status (SES) and health outcomes within populations. Figure 1 illus-

trates this difference—McKeown sought to explain a temporal improvement in life expectancy, among other things, with improving socioeconomic conditions (the upward slope in life expectancy with time), whereas the fundamental cause approach seeks to explain why the gap between high and low SES has been so persistent across time (the gap between the lines). Of course, actual trends have not been as constant or as linear as Figure 1 depicts them—the health gap between high and low SES has been variable and by some accounts increasing in the United States in recent years, and the trend toward improved health has not progressed in lockstep fashion. Still, the figure identifies 2 major empirical regularities—a prominent SES gap and a general trend toward improved health—to which a thorough social epidemiology must attend. McKeown focused on the second of these empirical regularities while the fundamental cause ap-

proach, up until now, has emphasized the first.

The fundamental cause approach is not alone in its focus on trends that differ from those addressed by McKeown. During the last decade, social epidemiology has been dominated by studies of income inequality in geographic areas and levels of population health in those areas. The idea is that areas with greater income inequality (nations, states, census tracts) experience worse health than areas with less inequality even when the median income of the areas is held constant. Like McKeown, this literature focuses on levels of population health (albeit in geographic areas rather than across time) and therefore might be expected to account for, or at least cohere with, the trends that McKeown addressed. But income inequality turns out to be an unusually poor explanation for trends toward better health over time. If income inequality drives population health, such inequality would need to have been dramat-

ically reduced over time in order to explain the enormous improvements in life expectancy that human beings have experienced. Of course, nothing like such a diminution in inequality has occurred; something else must be driving the powerful trend toward improvements in life expectancy. Thus, if Colgrove is correct and McKeown's thesis has been "overturned," a major trend remains insufficiently examined and insufficiently understood.

### POPULATION HEALTH IN A FUNDAMENTAL CAUSE PERSPECTIVE

We return to the question McKeown posed from the vantage point of a fundamental cause perspective and ask whether such a perspective can be usefully applied to this question. We believe the answer is yes if we return with a broadened view of what constitutes public health action or human agency directed toward public health matters. The broadened view asks us to move from a conception of public health action that focuses on what medical and public health operatives do to a conception that focuses more generally on human actions that have important health consequences. Note that, as paraphrased by Colgrove, the McKeown thesis pits the narrower of these 2 conceptions against largely invisible economic forces. If we apply our broader conception, however, the argument becomes not whether public health action had effects but whose public health action had them. Certainly at some point in the chain of events between improving economic conditions and declining mortality trends, people decided to use newly acquired resources to obtain adequate

food, clothing, and shelter for themselves and their families. This did not require a public education effort or some other action by medical or public health operatives. People used resources available to them to garner a health advantage. On the basis of this broader view, we can apply to McKeown's problem 2 principles from the fundamental cause approach: (1) people with superior resources can use those resources to garner health advantages, and (2) the specific mechanisms that allow advantage to accrue change from place to place and from time to time. Thus, in this formulation, people living in more recent times are akin to people of higher SES—they use their more plentiful resources to gain health outcomes that are superior to those of people living in earlier times. Moreover, the principal reasons for improvement in a population's health change over time. For example, the reasons the US population is doing better now than in 1975 are vastly different from the reasons the US population was better off in 1900 than it was in 1875. What this means is that a thesis like McKeown's that focuses attention on basic needs for nutrition and away from medical and public health actions may have been correct for some—perhaps large—periods of time but is not as helpful at explaining more recent trends in modern industrialized societies. However, at all times, both social conditions and health-directed human agency are key to health improvements—social and economic conditions provide the resources that enable humans to enhance their health. Thus, while we might disagree with some aspects of McKeown's thesis, we are led to agree with his asser-

tion that social conditions are fundamental causes of disease and death.

We end with another lesson the McKeown thesis provides for public health in the modern era. Criticisms of McKeown focus on his minimizing the role of public health and medical interventions, not on the idea that an expansion of economic resources led to improved nutrition and better health. This eminently reasonable aspect of his thesis alerts us that factors not typically conceptualized as relevant to health can have tremendous impacts on health outcomes. Thus, we need to be mindful of the potential health impact of the entire array of social, political, and economic policy we humans develop, such as social security, child welfare, education, or the location of potentially polluting industries.<sup>3</sup> When we understand the impact of broad policies like these, we will at least have the possibility of shaping population health through a judicious consideration of the health consequences such policies carry. We believe that it is in this broadening of perspective that public health will find its best response to social conditions that act as fundamental causes of disease. ■

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#### References

1. McKeown T. *The Role of Medicine: Dream, Mirage or Nemesis?* London, England: Nuffield Provincial Hospitals Trust; 1976.
2. Colgrove J. The McKeown thesis: a historical controversy and its enduring influence. *Am J Public Health*. 2002; 92:725–729.
3. Link BG, Phelan JC. Social conditions as fundamental causes of disease. *J Health Soc Behav*. 1995;(extra issue): 80–94.
4. Link BG, Phelan JC. Understanding sociodemographic differences in health: the role of fundamental social causes. *Am J Public Health*. 1996;86:471–473.
5. Link BG, Northridge M, Phelan JC, Ganz MC. Social epidemiology and the fundamental cause concept: on the structuring of effective cancer screens by socioeconomic status. *Millbank Q*. 1998;76:375–402.
6. Link BG, Phelan JC. Evaluating the fundamental cause explanation for social disparities in health. In: CE Bird, P Conrad, A Fremont, eds. *Handbook of Medical Sociology*. Upper Saddle River, NJ: Prentice Hall; 2000:33–46.