Editorial: Understanding Sociodemographic Differences in Health—The Role of Fundamental Social Causes

Several articles in this issue of the Journal document associations between sociodemographic factors and health-related conditions. Consistent readers of the Journal will note that this is not an unusual phenomenon—recent issues have reported associations between socioeconomic status and life expectancy, infant mortality, and the consumption of fruits and vegetables, to name just a few. And if one returns to the volumes of the Journal published 25 or 50 years ago, one will find studies focused on problems such as the relationship of socioeconomic status to health and age and sex variations in the prevalence and onset of diabetes mellitus. If one journeys back even farther to the roots of social medicine in the works of people like Rudolf Virchow, one will find something very similar: a predominant concern with associations between disease and social conditions like poverty and substandard housing.

From one point of view, this repeated documentation of the association between sociodemographic factors and health belies a distinct lack of progress and indicates a major problem in the field of public health. From this perspective, knowledge about sociodemographic patterns of disease is considered useful insofar as it helps us to pinpoint the medically relevant risk factors that explain these associations and that are the true culprits in disease causation. However, progress is indicated when we are able to move our attention away from the social conditions and toward identifying and intervening on the more proximate risk factor. Our continuing focus on sociodemographic patterns thus suggests that we are stuck in a primitive stage of scientific development. Here we are, 25, 50, or 150 years later, still tinkering with the same old stuff. For our colleagues who share this perspective, an issue of the Journal focused on sociodemographic factors can be expected to elicit a long gaping yawn.

But there is an important principle of social epidemiology that suggests that we will never be able to, nor should we try to, turn our attention away from the sociodemographic factors themselves. Put simply, this principle states that societies shape patterns of disease. Virchow directed attention to this social shaping by claiming that “medicine is a social science, and politics nothing but medicine on a grand scale.” More recently, Susser, Watson, and Hopper put it this way:

Societies in part create the disease they experience and, further, they materially shape the ways in which diseases are to be experienced. Cross-cultural studies of disease consistently show that the varieties of human affliction owe as much to the inventiveness of culture as they do to the vagaries of nature. If disease is seen in its full dimensions as a phenomenon besetting persons in communities, its status as a culturally constituted reality becomes apparent. These are bold and broad statements because they are not bound by time or place. They imply that sociocultural factors are at work in all societies—past, present, and future—and that a direct focus on them is essential. From this perspective, our continued attention to sociodemographic factors is not a sign of stalled progress, but rather a simple
reflection of the fact that societies continue to shape patterns of disease through time and that it is the job of public health professionals to stay vibrantly attuned to these processes.

Our skeptical colleagues might protest that such sweeping statements concerning the central and enduring role of social conditions in shaping disease are overstated or just plain wrong. Social conditions expose people to risk factors, and those risk factors cause disease, thereby producing patterns of disease in populations. It follows that, once the risk factors are uncovered and addressed through prevention or intervention, the social pattern will change. Enduring associations between social factors and disease can only indicate our failure to identify risk factors and intervene effectively.

Yet history gives credence to the somewhat startling and counterintuitive notion that social patterns of disease may persist despite effective interventions on potent risk factors. We illustrate with the case of socioeconomic status and health. In the 19th century, the founders of social medicine observed a strong association between poverty and indicators of ill health. This powerful association appeared to be clearly attributable to the dire housing, sanitation, and work conditions of poor people at that time. However, with tremendous medical advances and public health initiatives, the incidence of such diseases as diphtheria, measles, typhoid fever, tuberculosis, and syphilis declined dramatically. Moreover, modern welfare states have substantially increased access to medical care for poor people. Thus, by the 1960s, many of the factors previously identified as linking socioeconomic status to disease had been addressed, and one might have expected the association to weaken and perhaps disappear altogether. But it has not. Recent studies demonstrate an enduring or even increasing association between socioeconomic status and many disease outcomes.

Why did this happen? As risk factors known to intervene between socioeconomic status and disease were blocked, why didn't the association between the social cause and disease decline in lock step, as our standard causal models and skeptical colleagues would have predicted? A recent review of risk factors currently linking socioeconomic status and disease by Adler et al.\(^9\) holds a clue: it shows that risk factors of sanitation and immunization have been replaced by risk factors that include smoking, exercise, and diet. Further, the evidence suggests that several of the risks identified by Adler et al. were not important intervening mechanisms before 1960. For example, a relationship between socioeconomic status and smoking did not emerge until the 1960s, when people of higher socioeconomic status became more likely to quit smoking and less likely to start. Thus, the comparison of past and present risk factors reveals an important fact: as some risk factors mediating the association between socioeconomic status and disease were eradicated, others emerged. Consequently, the association between socioeconomic status and disease has endured.

Was this a fluke or an uncanny coincidence? On the contrary, we propose that such enduring associations between sociodemographic factors and disease are predictable and perhaps unavoidable, because many social conditions are what we have called "fundamental social causes" of disease.\(^10\) As we define it, a fundamental social cause involves resources like knowledge, money, power, prestige, and social connections that strongly influence people's ability to avoid risks and to minimize the consequences of disease once it occurs. Because of the very general utility of these social and economic resources, fundamental causes are linked to multiple disease outcomes through multiple risk-factor mechanisms. Moreover, because these resources can be used differently in different situations, fundamental causes influence disease even when the profile of risk factors changes dramatically.\(^11\) It is this persistent effect on health in the face of dramatic changes in mechanisms that leads us to call such factors "fundamental" social causes and that make the bold and broad statements made by Virchow and by Susser et al. not only plausible but compelling.

Fundamental causes become apparent only under conditions of change—for example, change in diseases, treatments, risks and/or knowledge about risks. If no new diseases emerged (like acquired immunodeficiency syndrome [AIDS]), no new risks developed (like pollutants), no new knowledge about risks emerged (like cigarette smoking), and no new treatments were developed (like neonatal intensive care), the concept of fundamental social causes would be moot. In such a static system, as risk factors known to intervene between a social cause and disease were eliminated or reduced, the association between the social condition and disease would also decline. But, of course, this is nothing like the situation humans have ever confronted with regard to health. In a dynamic system, fundamental causes are likely to emerge. This is because the resources embodied in fundamental causes can be transported from one situation to another. Consequently, as health-related situations change, those with the most resources are best able to avoid diseases and their consequences. Thus, no matter what the profile of diseases and known risks happens to be at any given time, those who have greater access to important social and economic resources will be less afflicted by disease.

Viewed from this perspective, the articles presented in this issue are anything but soporific. They are essential and vital contributions to public health research and practice. We believe that their impact will be further enhanced to the extent that they are read and interpreted in light of more general principles of social epidemiology that recognize that societies have always shaped patterns of disease and that they do so in ways that reflect the distribution of advantage and disadvantage in those societies. One reason such a perspective is important is that it is revealing with regard to what to do about the associations that we find. We have proposed a dynamic association between sociodemographic factors and risks for disease such that groups more advantaged with respect to knowledge, money, power, prestige, and social connections will, whatever the current profile of risk factors and diseases, come out ahead with respect to health. To the extent that this is so, inequalities in health will exist as long as social inequalities do, and the greater the social inequality, the greater the health inequality. It follows that if we truly wish to reduce inequalities in health, we must address the social inequalities that so reliably produce them.

Bruce G. Link
Columbia University
School of Public Health and
New York State Psychiatric Institute
New York

Jo C. Phelan
Department of Sociology
University of California
Los Angeles

References
1. Diehr P, Madden CW, Cheadle A, Martin DP, Patrick DL, Skillman S. Will unin-

April 1996, Vol. 86, No. 4

Editorial: A Contract on America's Children

If public policy were driven only by data, what considerations would confront policymakers after reading the excellent reviews of childhood morbidity and mortality in this issue of the Journal? The first finding might be that in many important respects circumstances for children are improving. Childhood mortality is declining, more rapidly for younger than for older children. Declines are most impressive for mortality from unintentional injuries, cancer, pneumonia and influenza, and from congenital anomalies. Would policymakers be led to speculate that conditions responsive to medical care are being favorably influenced and that perhaps Medicaid and its component for children, Early Periodic Screening Diagnosis and Treatment, are doing the job they were intended to do? This possibility is enhanced considering the increase in poverty rates among children during the period of study; poverty has a strong adverse association with these conditions.

Attention might then be directed to conditions which have not improved. Homicide stands out as the only major cause of death among young children that did not decline; it rose by 86% between 1968 and 1992. For infants and young children the murderers are not sinister strangers: they are predominantly parents and household members. Would policymakers associate this chilling trend with the increase in unwanted childbearing and with the dramatic decline in public funding for family planning services? Is there an association with the increasing obstacles for terminating unwanted pregnancies? People who find these inferences troublesome might then look at measures that assist parents in the care of young children. What about provision of affordable day care and preschools, especially in a climate that increasingly, for economic and political reasons, presses mothers to take jobs outside the home. Does the dearth of affordable child care contribute to the dysfunction and desperation in households with small children? (Most of their homicidal deaths result from beatings.) Note should be taken that, compared with spending for social supports for the elderly, the United States spends less on children than other industrialized countries, most of which make generous provision for child care and enjoy better records of child health.

Improvements in many respects are also apparent among older children and youth, especially for motor vehicle deaths. Alcohol-related vehicular deaths are greatly reduced. These encouraging trends are offset by the dramatic increase (54%) in deaths from suicides and homicides. Firearms are the most common instruments of these deaths. Sells and Blum emphasize the increasing lethality of handguns and the easy availability of firearms to children and youth. The national tension and stumbling action over control of firearms are brought to mind.

Reproductive health issues remain prominent in policy debates. Notable findings are the continued increase in the proportion of teenagers who are sexually active. The "just say no" educational programs promoted during the Reagan administration had little if any impact on sexual behavior. A decline in teenage pregnancy rates suggests that teenagers are becoming more efficient contraceptors. A combination of education linked with appropriate clinical services, including access to reliable contraception, has a constructive effect, helping to prevent teenage pregnancies. A slight increase in pregnancy and birth rates among the youngest teenagers, and evidence that many young adults with acquired immunodeficiency syndrome (AIDS) became infected during adolescent years, suggest the need for more vigorous approaches at younger ages. Use of measures that protect against both pregnancy and sexually transmitted infection, although improving, is still lacking among half of teenagers at time of first intercourse.

Use of alcohol and illicit drugs is generally reduced; cigarette smoking is increasing, and use of marijuana, after declining for a time, increased again during the past 2 years. Educational programs on the hazards of these behaviors appear to have limited effectiveness with young people. Fewer of them disapprove of using illicit substances.

After reviewing these trends, policymakers might well ask to be advised on what policies work and which do not for improving the health of children. The data suggest that no one initiative is sufficient for most health problems; many supports and services are required. The data belie an attitude that nothing works. We know for certain that societal neglect of children will not work. Parents need help in raising their children. We have known that ever since Herbert Hoover's policy pronouncements of the 1920s, although we have not consistently acted on this wisdom. Universal medical care, health education, preventive and protective services, alleviation of poverty—all these are necessary and none alone is sufficient. In addition to these initiatives, policymakers might be urged to give new

Editor's Note. See related articles by Sells and Blum (p 513) and Singh and Yu (p 505) in this issue.

April 1996, Vol. 86, No. 4