

Measuring Social Inequalities in Health

Introduction

PHILIP R. LEE, MD, Assistant Secretary for Health and Head of the Public Health Service

Although socioeconomic inequalities in health were high on the public health agenda during much of the first half of the 20th century, they faded from view with the assumption that the United States is a "classless" society. Unlike Great Britain and many European nations where public health data are routinely reported by a socioeconomic measure (most often occupation), the United States generally presents health data by age, sex, and race.

Many public health data sets, whether Federal, State, or local, do not contain socioeconomic variables at all, severely limiting our understanding of how and why differentials in health outcomes occur. In an era when cost-effective and targeted health planning is more important than ever, these deficiencies in the availability and reporting of data are no longer acceptable.

As a first step, the Public Health Service, under National Institutes of Health leadership, funded a meeting in September 1994 in Annapolis, MD, to address these data gaps and related issues in the measurement of social inequalities in health and to make recommendations for improvements in the collections and reporting of socioeconomic data. I am pleased to share with you the following report of the Annapolis meeting, "Measuring Social Inequalities in Health" and its recommendations. During the coming months and years, we plan to begin their implementation.

Report on the Conference of the National Institutes of Health

NANCY MOSS, PhD
NANCY KRIEGER, PhD

Dr. Moss is a Special Expert in Demography and Population Epidemiology in the Behavioral and Social Research Program, National Institute on Aging, National Institutes of Health. Dr.

Krieger is an Investigator in the Division of Research, Kaiser Foundation Research Institute.

Tearsheet requests and requests for the complete report of the Annapolis meeting to Dr. Nancy Moss, Behavioral and Social Research Program, National Institute on Aging, Gateway Building, Room 533, Bethesda, MD 20892; tel. 301-496-3136; FAX 301-402-0051; Internet <nm28a@nih.gov>.

RAPID SOCIAL AND ECONOMIC CHANGE is transforming the structure and composition of the U.S. population while intensifying economic inequality within as well as between nations. In both the United States and Western Europe, the gap in health status and mortality between those commanding, and those who lack, economic power and social resources continues to widen. These parallel trends—of growing economic inequalities and growing social inequalities in health—reflect, in part, the relationship

between people's socioeconomic position as consumers and employers or employees and their social, biological, and mental well-being.

Despite these well-known associations, we are hampered in our efforts to track, understand, and reduce socioeconomic inequalities in health for two reasons. First, U.S. vital statistics, disease registries, and medical care utilization statistics, unlike those in many European countries, only report basic data about the health of the nation in terms of race, sex,

and age, even when the socioeconomic data may be available. Yet the data reported often form the basis for policy. Second, the measures used are often inconsistent and inadequate for capturing the full range of socioeconomic disparity. For example, our focus on the poor and nonpoor obscures a whole range of socioeconomic differences that affect health.

It is one thing to say that U.S. public health data bases should include improved socioeconomic data; a harder task is to develop recommendations about how this could be achieved. Researchers and policy makers disagree over whether and how data should be gathered on income, wealth, education, and occupation and if these or related socioeconomic data should be gathered only on individual persons or also on their households and neighborhoods.

Other controversies surround how to measure the socioeconomic position of people not in the active labor force (for example, children, the unemployed, and the elderly) or who belong to nontraditional households (for example, extended families, same-sex couples), and whether the same measures can be used validly for women and for men and for whites and people of color, given their different positions in the labor market and the broader economy. For example, even at the same level of education and in the same occupations, women earn less than men, and people of color earn less than whites. Within the United States, the task of gathering consistent socioeconomic data is further complicated by the absence of centralized data systems and consistent individual identifiers such as exist in many Western European countries.

In order to address these issues, the National Institutes of Health organized and sponsored a conference on the topic, "Measuring Social Inequalities in Health" that took place in Annapolis, MD, September 28-30, 1994.

Description of the Conference

The conference had four goals:

- To improve the tools for evaluating socioeconomic gradients in health;
- To create and refine measures that can be used in Federal or federally funded data sets;
- To clarify the relationship of race, ethnicity, sex, and age to social class, in order to modify measures appropriately; and
- To provide investigators with a basis for implementing the revised National Institutes of Health guidelines on the inclusion of women and minorities in research.

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The idea for the conference came from a small interdisciplinary workshop on the same themes held at the National Institute of Child Health and Human Development in October 1993 in which economists, sociologists, and epidemiologists outlined the requirements for a systematic approach to modifying Federal data collection. The 1994 conference, which was funded by the Offices of Research on Women's Health and Minority Health at the National Institutes of Health and by Public Health Service evaluation funds, attracted attention from many sectors of the Public Health Service and beyond. Participants included Federal and non-Federal authorities charged with responsibility for managing different types of data sets, social scientists and epidemiologists concerned with social inequalities in health, and representatives of the broader community of advocacy organizations concerned with public health data.

Unlike many similar meetings, the Annapolis conference included theoretically oriented social scientists upon whose work epidemiologists often draw at second hand. The meeting was strengthened by the presence of Federal officials with major policy setting roles, including the Director of the National Center for Health Statistics, the Deputy Director for Extramural Research of the National Institutes of Health, and the Chief Statistician of the Office of Management and Budget.

Two sets of workshops charged with making specific recommendations for data collection were preceded by a series of background papers on social inequality that were distributed to participants in advance of the meeting. The papers covered themes such as the theory of social class and the constructs of poverty and socioeconomic status, the history of social class data in public health in the United States and a summary of work on social inequalities in health in Europe, the social and economic context for considering inequality, a critique of measures of deprivation and resources, and the measurement of social inequalities in different demographic and community contexts.

In the first set of workshops, participants raised

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questions that cross-cut different types of data sets, pursuing these themes that were raised in the background sessions: What are the critical elements of measures of social inequality? How specific and inclusive should they be? What are the analytical as well as theoretical issues that they elicit? The second set of workshops produced specific recommendations for four types of data sets: U.S. vital statistics, U.S. government health surveys, nongovernment surveys, and disease registries. Many of the recommendations were also pertinent to health services and financing data sets. Rapporteurs from the different workshops presented the recommendations to all conference participants in the final plenary session.

Summary of Recommendations

Following are recommendations relevant to all four types of data bases—vital statistics, government health surveys, nongovernment health surveys, and disease registries—and to health services and health financing data:

- Collect socioeconomic data routinely and routinely present data stratified by socioeconomic position, in conjunction with data on sex, race and ethnicity, and age.

Implementing this recommendation would greatly facilitate understanding the extent to which racial and ethnic inequalities in morbidity and mortality are linked to racial and ethnic inequalities in socioeconomic position. Inequalities that persist within socioeconomic strata may offer new leads for exploring how other aspects of racial discrimination may harm health.

- Consider occupation a core socioeconomic variable; the level of earnings available and the educational level required to be employed in different occupations reflect structural changes in the national and international economies, which in turn affect the types and distribution of occupations.

Using occupation as the core socioeconomic variable would highlight how the economic structure of the United States, and not simply individual

behaviors or “lifestyles,” generates the conditions which in turn underlie social inequalities in health.

Where feasible, detailed data should be collected on characteristics of employment (for example, authority, control, subordination) and whether the employment is full- or part-time. Other socioeconomic data that should be collected include amount and sources of income, size and composition of household supported by this income, hardship (poverty), assets (including housing tenure and sources of wealth), health insurance coverage, and completed educational level or credential. Where protection of human rights and confidentiality allow, data on nativity should also be collected and, if the country of birth is not the United States, age at or year of immigration should be ascertained.

- Three different levels of socioeconomic data should be evaluated: individual, household (including information on spouse or partner), neighborhood (via geocoding and linkage to census data).

Clearly distinguishing among individual, household, and neighborhood socioeconomic characteristics would allow for sharper distinctions among contributing causes of social inequalities in health and would help target interventions more effectively.

- Conduct research to ensure that socioeconomic measures are valid for analyzing inequalities in health among women, children, and students, the elderly, diverse racial and ethnic groups, individuals who differ in sexual orientation, and adults not in the labor force, such as those retired, unemployed, disabled.

Most measures of socioeconomic position have been based upon the model of the white European heterosexual nuclear family in which the male head-of-household is the sole active (or chief) wage-earner. Yet since we live in a nation where two-wage earner households are increasingly the minimal unit for economic stability, the proportion of elderly and retired people in the population is rising, the need for better data on our diverse population is ever more apparent, and nontraditional (such as lesbian and gay) households are more visible, the assumption that existing socioeconomic measures are adequate needs to be tested.

- Use a core set of socioeconomic measures in all data bases to permit comparison of results (across time, space, and type of data base); cross-national comparisons would also be desirable.

Comparisons of health data that use consistent socioeconomic measures, across studies, States, re-

gions, and countries would allow better assessment of the degree and importance of social inequalities in health and would facilitate policy making and program planning.

- Encourage data linkage in order to combine morbidity and mortality data with socioeconomic survey and census data, health insurance data, and other relevant data sets. (All linkages must preserve the confidentiality of the data.)

For example, one powerful and economical way of augmenting existing data bases now lacking socioeconomic data would be to geocode the records (that is, use peoples' addresses to determine the neighborhoods where they live) and then link them to the relevant census data for each neighborhood's socioeconomic conditions. This approach could be applied nationwide and expand our capacity to address regional, State, and local differences in health outcomes.

- Make available data on socioeconomic gradients in health at the State and local level, not just at the national level, to improve the planning of public health programs.

Although some socioeconomic data are presently collected in national surveys conducted by the National Center for Health Statistics and in federally supported surveys, they cannot substitute for the localized data required by State, county, municipal, and tribal health departments. National level data can be used to test and validate the measures that local authorities can implement.

Conclusion

The absence of sufficient, consistent socioeconomic measures in our nation's basic health data bases undercuts our ability to describe accurately important trends in the public's health and to plan health policies and programs efficiently and economically. It also weakens basic as well as applied research efforts to understand the pathways and mechanisms by which social and economic disparities affect health.

As the conference emphasized, the question we face is how to improve upon the groundwork that has been laid by Federal statistical and health agencies. The fact that it may be difficult to develop measures that are appropriate for our population in all its diversity does not mean that it should not be attempted. Already, many Western European countries, including the United Kingdom, Denmark, Finland, and Norway, as well as Australia and New Zealand, collect basic social class data as part of their

vital statistics. However, as British researchers have repeatedly noted, although the occupational class categories employed in their vital statistics may be crude and need to be supplemented by other measures of deprivation, they are intuitively and empirically meaningful. Since their introduction in 1911, they have served to distinguish among groups with markedly different and differently changing health status—and in doing so have profoundly influenced British health policy.

The same should be possible in the United States, despite the fact that our population is considerably larger and more diverse and that the inequalities we face in wealth and health are also larger than those observed in many European countries. Uncovering the reasons for these disparities would be a profound contribution to the growing international knowledge about the causes of—and ways to reduce—social inequalities in suffering, disease, and death. The public's health deserves no less.