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PROGRAM ON HUMAN AND COMMUNITY DEVELOPMENT

Network on Socioeconomic Status and Health

Objectives

Chronic disease, disability, and early death are destructive forces in individual lives and in whole communities. Their toll is high — and they do not strike at random. A growing body of evidence indicates that socioeconomic status (SES) is a strong predictor of health. Better health is associated with having more income, more years of education, and a more prestigious job, as well as living in neighborhoods where a higher percentage of residents have higher incomes and more education.

The mission of the Network on Socioeconomic Status and Health is to enhance the understanding of the mechanisms by which socioeconomic factors affect the health of individuals and their communities. The Network's research agenda is designed to inform both policy and practice: to stimulate additional research in diverse fields, to contribute data to discussions of economic and social policy, and to provide a basis for social and medical interventions that will foster better health among individuals and communities.

Approach

The Network's investigators are drawn from the fields of psychology, sociology, psychoimmunology, medicine, epidemiology, neuroscience, biostatistics, and economics. Their research is organized around an integrated conceptual model of the environmental and psychosocial pathways by which SES alters the performance of biological systems, thereby affecting disease risk, disease progression, and ultimately, mortality. The model addresses several fundamental facts:

There is a strong, two-directional association between socioeconomic status and health. The Network focuses on the multiple components of SES, their impact on health, and the mechanisms and pathways by which the impact occurs. Besides the objective measures of education, income, occupational status, and wealth, the Network has developed a subjective measure of perceived social status.

With a few exceptions, disease is more prevalent and life expectancy shorter the lower one is in the SES hierarchy. The Network has examined the relationship of SES to a wide range of diseases and mortality, the effects of SES on cognitive and physical functioning as individuals age, and the role of SES in recovery from disease.

SES gradients can be seen in pre-disease indicators such as blood pressure, cortisol patterns, central adiposity, and carotid atherosclerosis. This may reflect the wear and tear on the body of exposure to stressors and lifestyle factors associated with lower SES. Preliminary evidence suggests that summary scores of these indicators are better predicators of certain diseases, cognitive and physical decline, and mortality than are conventional risk factors.

The association of SES and health begins at birth and extends throughout life, but the strength and nature of the relationship can vary at different stages of life. The Network hypothesizes that the effects of SES in childhood and later may be cumulative, underscoring the value of examining trajectories of SES along with trajectories of risk.

The effects of poverty and extreme adversity alone do not explain the association of SES and health. Health improves with each step up the SES ladder. While the greatest individual burden of disease occurs among the most disadvantaged, the greatest population effects are seen in middle SES groups. The Network's focus is on discovering the mechanisms underlying the graded relationship between SES and health.

Socioeconomic status and race/ethnicity interact in their associations with health. The Network is examining this interaction by studying racial differences in SES trajectories, material hardship, and experiences of discrimination, and the impact of these differences on pre-clinical indicators of disease and disease states.

There are multiple pathways by which SES may affect health, including access and quality of health care, health-related behaviors, individual psychosocial processes, and physical and social environments. The Network focuses on the downstream psychosocial processes and the upstream physical and social environmental determinants. In each domain, it is interested in the balance between resources and demands or hazards, and in the capacity provided by higher SES to deal with these hazards and demands.

Progress and Plans

In its first phase, the Network has undertaken a variety of studies focusing on the social, psychological, and biological processes involved in "social gradients" in health and disease. Several of these involve collaborations with existing MacArthur initiatives and other ongoing research.

For example, the Network has added new measures to waves of data collection in the Whitehall Study of British Civil Servants, a longitudinal study that has shown a persistent influence of SES on health well into old age. The group has also added new psychosocial measures to the 15-year follow-up wave of the CARDIA study, a multi-site, longitudinal project funded by the National Heart Lung and Blood Institute, and has collaborated with in-depth "allostatic load" ancillary studies at the project's Oakland and Chicago sites.

The Network has now initiated a large study of work environment and health across 15 plants of a large industrial company. They are using data on administrative and physical status, supplemented with new surveys, to assess psychosocial and environmental factors affecting allostatic indicators and health.

Data collected from these and other studies will enable the group to test its model of the pathways by which SES alters biological systems and health.

Network Web page: www.macses.ucsf.edu. For additional information, contact the Program Administrator, Program on Human and Community Development, (312) 726-8000 or 4answers@macfound.org. Also see our Web page: www.macfound.org.

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Established 1997