

Editorial :**Epidemiologists and poverty alleviation: what is needed?**

Epidemiology is the study of the distribution and determinants of health related states or events in specified populations, and the application of this study to control of health problems. *Social epidemiology* is defined as the branch of epidemiology that studies the social distribution and social determinants of states of health.¹

Over a period of time epidemiological studies have been very successful in identifying the risk factors of major diseases. However, mostly the research is focussed on risk factors that are relatively proximal causes of disease such as diet, cholesterol level, exercise and the like. In other words biological processes or molecular pathways are explained as causes of diseases. Social epidemiologists question the emphasis on individually based risk factors and argue that greater attention must be paid to basic social conditions if health reform is to have its maximum effect in future. Social epidemiologists argue that social factors put individuals at higher risk for the increased biological risk for developing diseases. For effective intervention and improvement of national health, it is important to tackle these fundamental causes of disease. The social factors and the access to resources are the main reasons. Their lack is responsible for multiple disease outcomes through multiple mechanisms. Thus, they maintain an association with disease and it is possible that the intervening mechanisms might change.²

It is generally believed that eliminating health disparities is a fundamental goal of public health research and practice. In a very general way it means that eliminating the differences between groups of people which might affect the health conditions of the people.³ Poverty alleviation might be in the overall area of public health. In that sense epidemiologists may be very much concerned with poverty alleviation. International attention is increasingly focusing on environmental concerns, from global warming and extreme weather to persistent chemical pollutants that affect our food supplies, health and well being. These environmental exposures disproportionately affect the poor and those residing in the developing countries, and may partly explain the persistent social gradients in health that exist within and between nations. Thus there is a role for environmental epidemiologists to play in furthering the global agenda for sustainability, environmental health and equity.⁴ They also have a role in exploring the upstream larger-scale societal factors that contribute to inequitable patterns of exposure and health outcomes. This may build up an evidence base about how poverty and environment together affect health. Thus, epidemiologists may participate in efforts to promote social justice and responsible action for social development and reduce health inequalities.

But traditionally oriented epidemiologists would be happy to confine themselves to ascertaining the association between the biologic risk factors and disease entities and establishing the causation of those diseases. They would not agree with Rose's assertion⁵ that the primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social. It is hard to disagree that the primary task of epidemiologists should be to acquire insight into the causal chain, starting from root causes and continuing up through the beginning of the disease itself.

But the following too cannot be ignored and need special consideration. What should be the role for epidemiologists in studying the socioeconomic foundations of disease in populations? Advances in the biological and molecular determinants of disease are unlikely to reduce the population disease burden of socioeconomic position. Knowledge of molecular pathways will not lead to increased understanding of the unprecedented loss of life expectancy in certain areas of the world. Research into the biological and molecular mechanisms of disease should be seen as complementary to, and not as a substitute for, a rigorous effort to understand the behavioral, social, community, and policy determinants of population

health. This research is where opportunities for interventions to reduce socioeconomic inequalities in the health of populations are primarily to be found.

Epidemiological expertise can be a critical component in establishing the health impact of social and economic policy.¹ When epidemiologists abdicate their role in the provision of solid evidence of the impact of social and economic factors on the health of populations, they are left with incomplete knowledge of the chains and webs of causality that traditionally epidemiologists value. Potential opportunities to reduce the major cause of disease in populations are lost by an approach focused solely on downstream approaches. As the discussion of the proper role of epidemiologists matures, more will be gained by efforts to bridge the gaps between downstream and upstream approaches than by driving them away from one another.

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