Poverty's Impact on the Health of North Carolina:
The Socioeconomic Determinants of Health

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The current economic crisis has had a significant financial impact on many North Carolina residents. Unfortunately, it may be many years before we know the true impact of this downturn on the health of our citizens.

We have conceptually understood the relationship between socioeconomic status and health for many years and these insights have been previously discussed in the *North Carolina Medical Journal*,[1-5] For most health indicators, persons living in poverty fair worse than their more affluent counterparts, and as local, state, and national economies flounder, more and more people are adversely affected. Importantly, we have recently expanded our understanding of the socioeconomic determinants of health. For example, persons who are of low socioeconomic status generally live in areas that are environmentally unhealthy and that increase their risk for the development of asthma, infectious diseases, and other acute conditions. We now know living in impoverished areas also increases the risk for the development of chronic conditions such as obesity, diabetes, and cardiovascular disease. This is, to a large degree, due to the lack of local access to healthy food options, coupled with an abundant access to unhealthy food options, as well as a lack of access to safe and affordable physical activity-promoting facilities and resources. As an example, data from the Multi-Ethnic Study of Atherosclerosis (MESA), which includes a site in Forsyth County, North Carolina, showed that better neighborhood resources for physical activity and healthy eating is associated with a 38% reduction in risk for type 2 diabetes.[6]

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Similarly, we have known that being poor generally means having less access to primary and specialty health care. However, we now know that it's not just access per se, but access to quality primary and specialty care that contributes to the socioeconomic disparities in health care. This is especially true for conditions requiring substantial self-management resources and multidisciplinary care teams. Again, looking at the example of diabetes, appropriate management of this condition includes medical care from a diverse group of providers to assist in managing diet, physical activity, medication regimens, blood glucose and lipid levels, blood pressure, psychological health, and monitoring of the complications associated with diabetes.[7] Patients need to receive appropriate diabetes self-management education and must have resources available to exercise, eat healthy, and regularly monitor blood glucose and blood pressure. Given these multiple necessary elements to effective control, adequate diabetes medical and self-care management is especially challenging for those with limited financial resources.

Adding to the complexity in how socioeconomic factors determine health are the issues pertaining to the interrelationship between poverty, race, ethnicity, and geographic residence. While North Carolina is blessed to have such a rich racially and ethnically diverse populace, it is unfortunate that the largest racial and ethnic minority groups in our state, African Americans, American Indians, and Latinos, are more often represented in the numbers of North Carolina residents living in poverty.[8] While racial and ethnic minority groups are less likely to receive adequate

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health care due to limited financial resources and the local availability of these resources, they may also have negative perceptions of the health care they do receive due to perceived discrimination or distrust in health care providers or the health care system. North Carolina also has a substantially large rural population. Poverty rates in rural North Carolina communities are generally higher than in urban areas, especially in areas with substantial numbers of racial and ethnic minority group members. Geographic access to primary and specialty health care is also problematic in rural areas, and these two factors explain to some extent the significant disparities in health outcomes among our rural residents.

A discussion of the socioeconomic determinants of health also needs to consider the local, regional, state, and national policies which adversely affect the health of the poor. As previously discussed, local policies have contributed to the lack of local access to healthy food and physical activity resources in low-income communities. As another example, there are well-documented examples of policies across the country which have led to the creation of environmentally toxic dumping areas in low-income areas, which have ultimately been shown to have long-term detrimental impacts on the health of the local residents.

At the core of these issues lies the concept of "health equity," which is defined by the World Health Organization as "the absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically, or geographically."[9] Health equity, therefore, aims to identify and alleviate those social factors which contribute to systematic health disparities and requires a concerted effort among multiple entities.

Fortunately, by better understanding the socioeconomic determinants of health we know we must develop approaches to close the gap in socioeconomic disparities in health. Advocacy efforts led primarily by social justice and public health agencies have led to the recognition and adoption of healthy policies among the most vulnerable populations. For example, the recent adoption of a statewide ban in North Carolina on smoking in restaurants and bars should have a significant impact on workers in those facilities, many of whom are of lower income status. Health care providers have developed creative ways to expand health care to poorer and rural areas through services such as telemedicine, expanded clinic hours, satellite clinics, and parish nurse and lay health education services. One of the most successful programs in addressing breast cancer disparities in low-income women is the patient navigator model, designed to help women diagnosed with breast cancer "navigate" through the health care system in order to receive adequate care for their condition. And, of course, the recent discussions on health care reform in Washington have, as one of their primary aims, the elimination of cost barriers in the receipt of adequate health care for many of our citizens.

The work is not yet done, but progress has been made through research, advocacy, and policy change. While the recent economic downturn may have some immediate and long-term health implications, we are now more prepared to understand these impacts and develop strategies to alleviate the suffering of those most vulnerable residents of our state. **NCMJ**

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