Reducing Health Disparities by Addressing Social Determinants of Health:
The Mecklenburg County Experience

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Social determinants of health are the underlying cause of racial and ethnic disparities in health outcomes across North Carolina. In this commentary, we discuss the implications of such disparities for community health and public policy and describe efforts to reduce disparities in Mecklenburg County.

Despite its considerable economic vitality, Mecklenburg County faces significant social challenges. During the 5-year period 2008–2012, 14.5% of its residents lived in households with incomes below the federal poverty guidelines [1], and in a 2014 study of the 50 largest commuting zones in the United States, Charlotte ranked at the bottom (50th place) in terms of intergenerational economic mobility [2]. The legacy of slavery in the Southeast and limitations on civil rights until the middle of the 20th century have had a profound effect on the social, economic, cultural, and political experiences of African Americans in this region. These factors—and a Southern culture that still embraces fried food, sweet tea, and tobacco—have resulted in significant racial, ethnic, and socioeconomic health disparities.

Chronic diseases are responsible for considerable mortality in Mecklenburg County, with cancer being the leading cause of death in the county, and heart disease being the second leading cause of death [3]. Incidence rates of chronic diseases for Mecklenburg County as a whole are similar to national rates, but certain subpopulations have rates higher than the national average. For example, the self-reported incidence rates of diabetes and heart disease are 13.9% and 4.4%, respectively, among non-Hispanic blacks in Mecklenburg County, compared with 13.5% and 3.9%, respectively, for non-Hispanic blacks nationwide (analysis of Mecklenburg County Behavioral Risk Factor Surveillance System Database, 2011–2012). Similarly, blacks in Mecklenburg County died from diabetes and renal disease at rates that were 3 times higher than the corresponding rates for whites in 2012, and the all-cause mortality rate was 1.4 times greater for blacks than for whites [3].

In response to this significant disease burden, Mecklenburg County has made it a priority to address risk factors for chronic disease and health disparities. Twenty years ago, a number of community-based interventions were undertaken in underserved communities. In 1997 Carolinas HealthCare System opened Biddle Point Health Center in a predominantly African American community of about 20,000 people where 25% of residents were living in households with incomes below the federal poverty guidelines. In addition to providing culturally competent, community-based primary care services to an underserved population, Carolinas HealthCare System also sought to engage members of the local community in collaborative health promotion efforts. A community-oriented primary care process was used to help accomplish these goals [4]. An advisory committee was developed to participate in an extensive community assessment. Significant health disparities were found, and cardiovascular disease and diabetes were identified as priorities [5]. The advisory committee was then expanded into a coalition by recruiting additional community members and involving local human service providers.

Charlotte's REACH 2010 Initiative

In 1999 this coalition received a large grant from the Centers for Disease Control and Prevention through its Racial and Ethnic Approaches to Community Health (REACH) 2010 program; the money was to be spent on interventions targeting health disparities in heart disease and diabetes. The coalition used this grant to fund the Charlotte REACH project, which focused on training and supporting lay health advisers. These individuals were chosen by the leaders of 14 neighborhood associations and 3 community-based organizations to promote healthy diet patterns, exercise, and smoking avoidance and cessation. Each lay health advisor participated in an 80-hour training series and subsequently attended regular monthly meetings during which structured discussions helped them understand their role as change agents. Their work was overseen by a full-time coordinator and supported by the services of a registered

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dietitian, a tobacco control health educator, and a fitness specialist. The project trained 26 lay health advisers and maintained a regular cohort of 15–18 such individuals.

The design of the Charlotte REACH project was based on a socioecological model. Specific emphasis was placed on community and policy interventions, because those are most likely to bring about sustainable change. Several projects were implemented based on this approach. A farmers' market was started on the grounds of the health department to improve community access to fresh fruits and vegetables; a local branch of the YMCA expanded its physical activity programs into community-based settings; a diabetes quality improvement project was implemented at the local health center; and lay health advisers and coalition members participated in state and local efforts to educate political leaders about the importance of raising the state's tax on tobacco.

The Charlotte REACH project is one of few fully implemented community-oriented primary care projects for which population-based outcomes have been measured. The project achieved statistically significant improvements, with an

increase in physical activity and a decrease in the rate of smoking among women in the community. In addition, physical activity rates for the community as a whole increased to a level comparable to the rate for African Americans statewide, and the rate of fruit and vegetable consumption for community residents rose to be significantly higher than the rate for African Americans statewide [6].

Partners in Eliminating Health Disparities

Mecklenburg County has built on the infrastructure, resources, and experience gained from the initial REACH grant to expand efforts in African American and Hispanic neighborhoods characterized by high levels of poverty and low levels of educational attainment. In 2004 a coalition of governmental, academic, business, civic, community, and faith-based organizations was formed to improve health among racial and ethnic minorities in Mecklenburg County. Known as Partners in Eliminating Health Disparities (PEHD), this coalition focused its efforts on improving access, quality of care, and cultural competency in health care settings, and it launched an annual leadership symposium to highlight minority health, mobilize community assets, and integrate local efforts. As a result of this work, the county manager declared the elimination of health and mental health disparities to be a county priority in 2005 [7].

One of the lessons of the Charlotte REACH project was that trust and cultural competence are important in building community partnerships. Based on this finding, the Mecklenburg County Health Department and the PEHD coalition embarked on 2 related initiatives: the Community Health Leadership Training (CHLT) Academy and the Village HeartBEAT (Building Education and Accountability Together) program. Since 2007 the CHLT Academy has trained more than 300 individuals to be community health workers. As its initial training curriculum, the CHLT Academy is using the manual *With Every Heartbeat Is Life*, which was developed by the National Heart, Lung, and Blood Institute [8].

Village HeartBEAT is a wellness program for faith-based organizations that uses CHLT-trained ambassadors to work with adults in communities that have high levels of health disparities. The goal of the program is to reduce the incidence of heart disease and its associated risk factors. The initiative draws on strategies described in the 2011 Action Plan to Reduce Racial and Ethnic Health Disparities of the US Department of Health & Human Services [9]. Since the inception of the Village HeartBEAT program, individuals from 36 churches have received training as community health ambassadors, and 16 churches and approximately 200 ambassadors have participated in Village HeartBEAT competitions.

Mecklenburg Area Partnership for Primary Care Research

Since 2008 the Department of Family Medicine of the Carolinas HealthCare System, guided by a community advisory board, has been carrying out projects designed to improve health care access and to decrease health disparities among Latino immigrants in Charlotte. The Mecklenburg Area Partnership for Primary Care Research (MAPPR) is a practice-based research network that utilizes principles of community-based participatory research to analyze the impact of social determinants on the health of the Latino immigrant population; this network has received funding from the Robert Wood Johnson Foundation, the Agency for Healthcare Research and Quality, and the National Institute on Minority Health and Health Disparities. MAPPR has worked to build trust and to engage with the Latino community in local settings, including neighborhood elementary schools [10]. In addition to providing primary care and preventive services in a number of health care and community locations, the project has developed the Mecklenburg Access Portal (www.the-map.net), a Web-based program that allows residents to easily access health, education, and social service resources in Charlotte.

Efforts have recently begun to convene the MAPPR Community Advisory Board and the PEHD coalition together in order to prepare a comprehensive strategy for addressing health disparities among both African American and Latino residents of Mecklenburg County. There are also plans to expand the Village HeartBEAT program to link ambassadors with African American and Latino churches and neighborhood schools. Because African Americans and Latinos make up nearly 45% of the population of Mecklenburg County [1], the combined influence of these 2 groups will hopefully promote policies, systems, and environments that can increase access to healthy options in these communities.

Lessons Learned

Efforts to prioritize and address health disparities in Mecklenburg County have been based on innovative analyses of public health data. Both REACH and MAPPR have used increasingly advanced data linkages and geospacial analyses to determine areas of greatest need. Future analyses using data from health care systems to address differences in the quality of medical care would likely result in immediate progress toward eliminating racial and ethnic disparities, but there is limited access to data sets with accurate race and ethnicity data. Medical settings in North Carolina thus need to be more consistent in collecting self-reported race and ethnicity data, and these data should be used routinely to improve care and outcomes. Systems must also be able to overcome the obstacles posed by the proprietary data policies of competing health care systems, so that data are available to better quantify community morbidity and mortality and to measure, benchmark, and drive quality improvement across clinical services.

Given the challenges of addressing social determinants of health, no single agency or organization can expect to contribute significantly to the elimination of health disparities without a broad base of partners. Developing meaning-

ful and well-integrated involvement in a complex community intervention is a time- and labor-intensive process. In our experience with community coalitions, the concerns of public health department staff about the evidence base and methodology of an intervention have to be weighed against community members' concerns about trust and equity. Devoting adequate time to facilitate the process of forming a coalition is therefore essential to the development of strong community involvement and support. Inclusion of grassroots community partners allows input from a diverse range of residents and provides more insight into the needs of hard-to-reach populations in the community.

Many communities in North Carolina depended on the former Healthy Carolinians program to help structure and support local coalitions that provided community input, facilitated local partnerships, and assured progress toward the national objectives established by Healthy People 2020. Unfortunately, funding and technical support for Healthy Carolinians were reduced and then eliminated over the past 5 years as a result of budget constraints. As the state rebounds from the recent recession, it will be important to rebuild this program to make sure that local health departments have the capacity to engage their communities in health improvement efforts and the elimination of health disparities.

Many interventions designed to address health disparities emphasize reaching individuals or small groups with the greatest needs and a visible burden of suffering. However, interventions that are designed using a socioecological model have far greater impact. Changes in policy, systems, and the environment can have further reach and greater capacity to address the underlying causes of poor health and health disparity [11]. The REACH, MAPPR, and PEHD coalitions were all specifically designed to use community involvement to identify and address needed changes in institutions, the community environment, and public policy. These coalitions have successfully addressed systemic and environmental barriers to health behavior change by increasing access to healthy foods, physical activity resources, and regular health care in underserved communities. However, efforts to shape public policy have been less extensive. For example, the REACH and PEHD coalitions have participated actively in local and state tobacco control campaigns, but they have had difficulty defining a broader policy agenda that is specific to the focus community.

One of the most compelling policy issues now confronting us is access to care. Despite the well-documented efforts of 2 local health care systems, a significant number of Mecklenburg County residents do not have access to a health care home, routine clinical preventive services, or catastrophic care. The Patient Protection and Affordable Care Act of 2010 provided opportunities to expand insurance coverage for these services. However, the primary mechanism through which the Affordable Care Act could increase health care access for the most vulnerable populations would be through Medicaid expansion, and that option has not been adopted in North Carolina. We believe that a serious commitment to reducing the burden of health disparities in North Carolina will require the state to reconsider the adoption of this pragmatic and compelling option.

Ultimately, what a community seeks to improve, and how well it does so, speaks to its values and what it aspires to become. Disparities in health outcomes are not intractable, and an evidence base is emerging for effective interventions. Efforts in Mecklenburg County have focused on use of public health data, community engagement, and changes in policy, systems, and environments to address the social determinants of health and to eliminate disparities in health and health care among racial and ethnic minorities. Progress toward this goal has been modest but remarkable. NCMJ

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