Rural Health Disparities, Population Health, and Rural Culture

In this commentary, I place the maturing field of rural health research and policy in the context of the rural health disparities documented in *Health United States, 2001, Urban and Rural Health Chartbook*. Because of recent advances in our understanding of the determinants of health, the field must branch out from its traditional focus on access to health care services toward initiatives that are based on models of population health.

In addition to presenting distinct regional differences, the chartbook shows a pattern of risky health behaviors among rural populations that suggest a "rural culture" health determinant. This pattern suggests that there may be environmental and cultural factors unique to towns, regions, or United States Department of Agriculture (USDA) economic types that affect health behavior and health. (*Am J Public Health*. 2004;94:1675–1678)

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IN THIS COMMENTARY, I consider the historical focus of rural health research and policy on access to hospitals, primary care, and other health services, and I call for a shift toward a population health approach to rural health. Over the past decade, empirical studies have presented evidence that medical care contributes relatively little to health when compared with social and societal factors, environmental factors, health behaviors, and genetics. The Health United States 2001, Urban and Rural Health Chartbook[1] presents a pattern of risky health behaviors among rural populations that suggests a "rural culture" health determinant. It also presents distinct regional differences. Responding to regionally diverse behavioral risk factors is a challenge for the maturing field of rural health.

HOW FAR WE HAVE COME

Rural health research and policy is an established field, with a history of sentinel publications[2,3] and a journal, *The Journal of Rural Health*. Leading researchers and policy experts in the field have established some traditional areas of inquiry—areas that receive research funding and federal support in the form of policy interventions that include programs and funding (e.g., reimbursement, grants for direct services, loan repayments, and training funds). The field received a significant boost in 1987, when the federal Office of Rural Health Policy was authorized largely in response to the significant number of rural hospitals that closed during the mid-1980s. The health and the preservation of rural hospitals is a cornerstone of the field.

The argument for the preservation of rural hospitals is based on a principle of equitable access—a belief that federal and state policies are appropriate means for ensuring that rural residents have access to the essential health care services that urban residents take for granted. Ensuring access to primary care, often expressed in terms of a health care safety net and essential providers, has become of equal if not greater importance. More recently, rural health research and policy has come to include access to mental health, dental, and emergency medical services and a variety of other services.

In each of these research and policy domains, the traditional approach has been to present data that indicate there is a difference between urban and rural health, which is usually expressed in terms of utilization, spending, or geographic distribution of providers and services. In some cases, these data have led to the development of access standards, such as distance to the nearest hospital, or ratios of providers to population. To achieve these distances or ratios, policies were proposed to influence the location of services and providers. Critical-access hospitals, federally qualified health centers, and the National Health Service Corps are examples of successful interventions that have been supported by the traditional approach. Recently, however, the field has begun to direct its attention toward population health, public health, environmental health, and the differences between urban and rural health behaviors—areas where policy interventions through hospitals and health center initiatives may be inadequate for reaching whole populations.

POPULATION HEALTH AND DISPARITIES

Population health is defined as "an approach [that] focuses on interrelated conditions and factors that influence the health of populations over the life course, identifies systematic variations in their patterns of occurrence, and applies the resulting knowledge to develop and implement policies and actions to improve the health and well being of those populations."[4(p380)] A recent survey of rural health experts and practitioners found that access to health services continues to be the overwhelming priority,[5] which shows that traditional concerns about access to primary and hospital care continue to dominate rural health policy. However, respondents also ranked diabetes, mental health, oral health, and tobacco use as serious concerns, which indicated that rural health constituents may have begun the transition to a population health approach.

The chartbook's examination of geographic differences showed that rural areas ranked poorly on 21 of 23 selected population health indicators, including health behaviors, mortality, morbidity, and maternal and child health measures (data are presented by region and by gender). In addition to raising awareness of these disparities, the chartbook moved the discussion from one that is focused on differences between urban and rural health to one that is focused on the healthier, wealthier residents of "large fringe" counties—those who live in large metropolitan areas that do not include any part of the largest central city. On nearly every indicator, these suburban counties were better off than any of the other 4 categories used in the report (urban core, small urban, rural with a city of ≥ 10 000 residents, and rural without a city of ≥ 10 000 residents). Thus, it is no longer an urban versus rural disparity but a suburban versus rural disparity (or in some cases, a suburban vs urban/rural disparity) that is of concern.

A clear message of the chartbook is that the rhetoric of disparities is appropriate for rural health policy discourse. A health disparity population is defined as "a population where there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rates in the population as compared to the health status of the general population."[6(p7)] A traditional interpretation of these urban–rural disparities is that the data show a need for federal funding directed at provider shortages, Medicare reimbursement, and financing and policy interventions focused on the health care system. This interpretation is consistent with the traditional approach to rural health research and policy.[7]

However, the population health interpretation is quite different.[8] A convincing case has been made that the health care system makes a relatively small contribution to health outcomes (i.e., life expectancy, quality-adjusted life years, or mortality rates), with some estimates as low as 3.5%.[9] This body of research determined that social status, income, education, occupation, and place of residence are significant determinants of life expectancy and health. Also of relevance to rural health are studies that have investigated the effect of place of residence or community on health.[10,11] While many of these studies have focused on the "neighborhood effect" within urban environments, a few have focused on isolated rural populations, particularly those in cultural transition,[12,13] and found that immersion in "traditional" cultures may have a health-enhancing effect, while the stress of cultural transition may be associated with mental illness and poor cardiovascular health.

POPULATION HEALTH AND RURAL CULTURE

Since the passage of the Minority Health and Health Disparities Research and Education Act of 2000, federal agencies have encouraged researchers to address cultural differences. Grouping characteristics attributable to place of residence under the heading of "culture" risks the reification of this term into a tacit assumption that rural culture is based on standard societal roles that have evolved out of an agrarian history, which does not advance our research and policy agenda. Still, we must acknowledge that "important determinants of health-related behavior are embedded in relationships that tie individuals to organizations, neighborhoods, families, and friends in their community."[14(p1)] We need to better understand how these ties affect health and health behavior directly and indirectly because of their influence on income and education.

According to the chartbook, rural residents smoke more, exercise less, have less nutritional diets, and are more likely to be obese than suburban residents. A spokesperson for the National Rural Health Association cited these and other disparities when arguing for reimbursement and workforce policy interventions.[7] However, all of these behavioral disparities are correlated with income and education, and efforts to change unhealthy behaviors have often proven less effective among low-income, less-educated populations. Health educators are increasingly aware of the need for culturally sensitive approaches to modifying health behavior, but few rural health researchers and policymakers are asking the relevant cultural question, "Why does rural residence (culture, community, and environment) reinforce negative health behaviors?"

The chartbook emphasizes that this question must be asked. As a first step toward answering the question, we need a better understanding of the extent to which urban–rural disparities are explained by education and income alone and the extent to which these constructs work at both the ecological level and the individual level (e.g., the "neighborhood effect" of the average educational attainment within a community on health behavior). Moreover, the question must be asked with acknowledgment of the variability and the complexity of rural culture. It must be assumed that there will be many answers to this question because of variations in the economic and educational environment and because of variations in the physical and historical environment.

DIFFERENCES THAT MAKE A DIFFERENCE

Recent trends in rural health research and policy suggest that effective policy interventions must be based on differences among rural regions.[15] When arguing for a "progressive rhetoric for rural America," Ricketts noted that urban–rural comparisons are "plagued by the problem of aggregation of widely divergent nonmetropolitan populations . . ." while there are "regional patterns of rural disadvantage."[16(p44)] Some federal initiatives allow for regional variations in their implementation, a notable example being the Medicare Rural Hospital Flexibility Program.

The chartbook provides regional data for the Northeast, Midwest, South, and West, and the rural residents in each region were worse off than those in other regions on 1 or more of the population health indicators. For example, rural residents who lived in the South had higher rates of poverty, adult smoking, physical inactivity, death owing to ischemic heart disease, and births to adolescents; rural residents who lived in the West had higher rates of alcohol abuse and suicide; and rural residents who lived in the Northeast had higher rates of total tooth loss. These regional differences reinforce the need for a difference-based rural health policy, which leads to the question, "How do local cultural factors differ from one region to another, by

what methods can we detect these differences, and how can we use such knowledge to target interventions to improve health?" One powerful method for answering these questions is the ethnographic approach exemplified by Duncan's study of rural poverty.[17] Other promising methodological approaches were encouraged in a recent program announcement from the National Institute of Mental Health that called for "culturally-based approaches in designing . . . research and proposing hypotheses, . . . multi-level studies that would represent individuals within communities and communities within regions or geographic entities . . ."[18]

HEALTH AND PLACE OF RESIDENCE

In addition to income and education, another aspect of the residual rural effect is physical environment. In some rural communities, water quality, agricultural methods, forestry, or mining complicate the effect of place of residence. Also, landscape can affect health by creating real or perceived isolation.

The October 2003 issue of the *American Journal of Public Health* addressed the relationship between health and the built environment (physical environment, urban design, land-use planning, urban sprawl, and housing). The articles raised many good questions about the influence of place of residence on health, but the questions were almost exclusively about urban environments. We are accustomed to think of urban space as "designed" and rural space as "natural," yet the same policies that create sprawl and unhealthy urban spaces also are at work in rural communities, which forces planners to choose between economic development and healthy environments. With consistently lower average income and accumulated wealth in rural areas, economic development is even more likely to trump healthy design.

POPULATIONS AND SERVICES

The chartbook reinforces the hypothesis that the reduction and elimination of health disparities among rural populations will require a population approach that is sensitive to local variations in physical and cultural realities. These local or regional factors are acknowledged in the initiatives of the Appalachian Regional Commission and the Southern Rural Access Project, but population health must be delivered in the context of health system realities as well.

The chronic-care model developed by Ed Wagner is a population-based model that has provided a conceptual framework for improving the quality of health care. It is relevant to this discussion because it shows how a population approach to health care and an orientation toward services can complement one another. One element of the model is productive interactions between activated patients (those who are sufficiently motivated, skilled, and confident to manage their own health)[19] and prepared practice teams in the context of health care systems that utilize community resources. To have an impact on disparities, interventions must address 3 key elements—activated patients, prepared practitioners, and community resources—each of which may have unique local or regional features. For interactions among these 3 elements to be productive, there must be a common goal of population health improvement. With the chronic-care model, this is sometimes called "system-ness."[20]

While the chronic-care model was not developed to address the disparities cited in the chartbook, its key elements can be marshaled to that end. Rural health researchers, advocates, and policymakers can make good use of this widely accepted model to focus future efforts and interventions on each of the key elements, including the "system-ness" that ensures harmony among the elements. In doing so, we can build on improved understanding of the socioeconomic and cultural determinants of population health while engaging rural residents, practitioners, and community resources in health improvement. ■

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