

THE PROXIMITY OF RURAL AFRICAN AMERICAN AND HISPANIC/LATINO COMMUNITIES TO PHYSICIANS AND HOSPITAL SERVICES

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BACKGROUND AND STUDY GOAL

The 8,750,000 racial and ethnic minorities who live in rural areas—11.1% of all US minorities—face greater problems in their health and access to health care services than White, non-Hispanic rural inhabitants. The racial-ethnic disparity in use of health services is even greater in rural than urban areas.

Distance and travel time pose barriers to health care in rural areas generally, but may present particular problems for rural minorities, for several reasons. Minorities are poorer than Whites, and rural poverty often brings less access to transportation and therefore greater reliance on local care. In addition, for a variety of historical and social reasons rural minorities tend to cluster in regions and towns long recognized for their poverty. Because physicians prefer to practice in more affluent areas, the question arises whether predominantly minority communities are situated further from doctors, complicating their transportation problems.

This brief reports the findings of a study of how the African American and Hispanic/Latino composition of rural communities relates to local physician concentrations, and relates to distances to hospitals offering various levels of services.

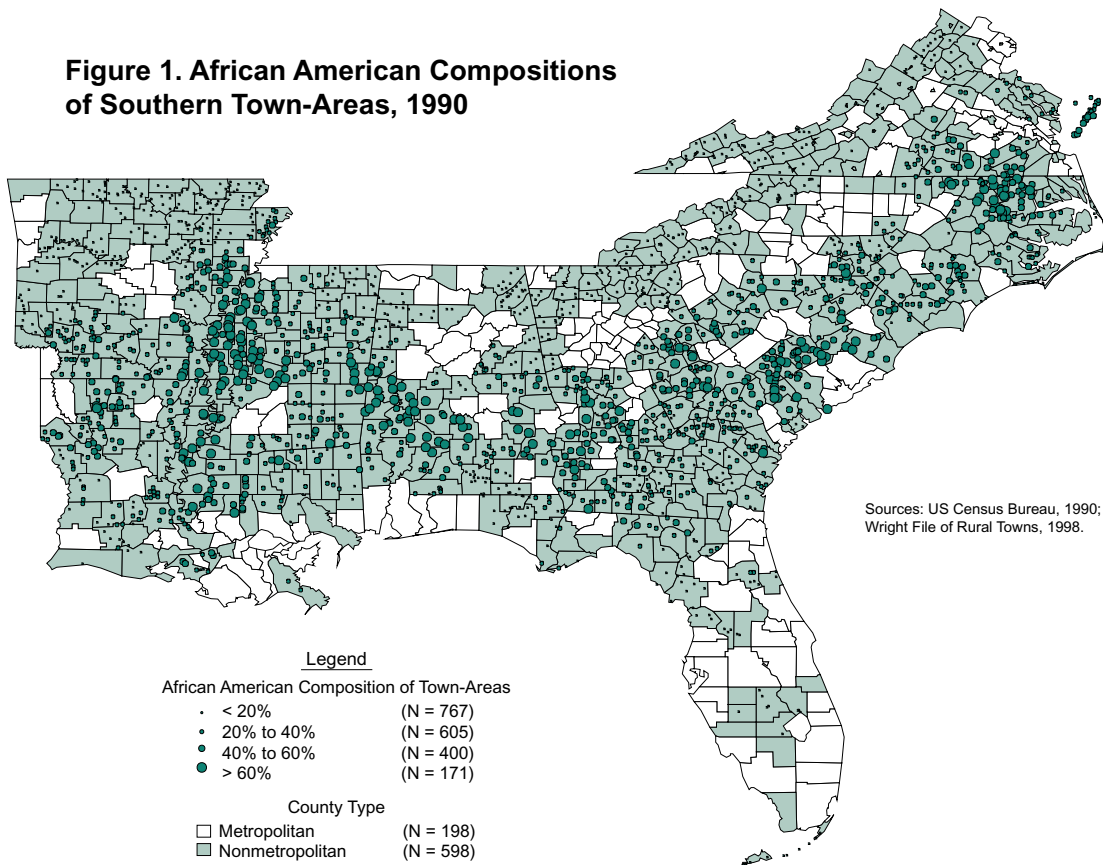
DATA

This study assessed geographical access to physicians and hospitals for town-areas arrayed into high, medium, and low compositions of African Americans and Hispanics. Town-areas encompass the areas within the legal boundaries of towns, combined with all surrounding minor civil divisions and census civil divisions within a 12-minute drive.

Data were from a unique file (Wright, 1998) of all U.S. non-metropolitan incorporated towns of any size and other unincorporated places of over 1,000 population in 1990, excluding Native American reservations and military bases. Population data in this file were drawn from the 1990 U.S. Census. Analyses of African American access were limited to the nine states—all Southern—within which were located 571 (97%) of the 589 US rural town-areas comprised of over 40% African Americans (**Figure 1**). Within the six Western states of the Hispanic analyses were 292 (91%) of the 320 US rural town-areas with over 20% Hispanics (**Figure 2**).

Hospital data for each town-area were from the American Hospital Association's 1996 annual survey of hospitals. Hospitals were sorted into four groups based on the services they offered. Distances to the nearest acute care hospital offering each level of service were calculated as the linear distance in miles from the center of each town to the closest urban or rural hospital offering the requisite services.

Figure 1. African American Compositions of Southern Town-Areas, 1990



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ANALYSES

Analyses were conducted separately for African Americans and Hispanics. Southern town-areas were divided into four groups based on their African American population compositions (less than 20%, 20-40%, 40-60%, over 60%), and the town-area groups were compared on their physician-to-population ratios, whether they had even a single physician, and distances to the nearest hospitals offering each of four levels of services. Western town-areas were divided into three groups based on their Hispanic population compositions (less than 20%, 20-50%, over 50%) and compared on the same physician and hospital access measures.

Associations between town-area minority composition and physician and hospital availability indicators were run first as simple, unadjusted associations, then repeated with adjustments for location across the involved states and socio-demographic indicators of town-area populations—total population size, percent population below poverty, and percent population over age 65.

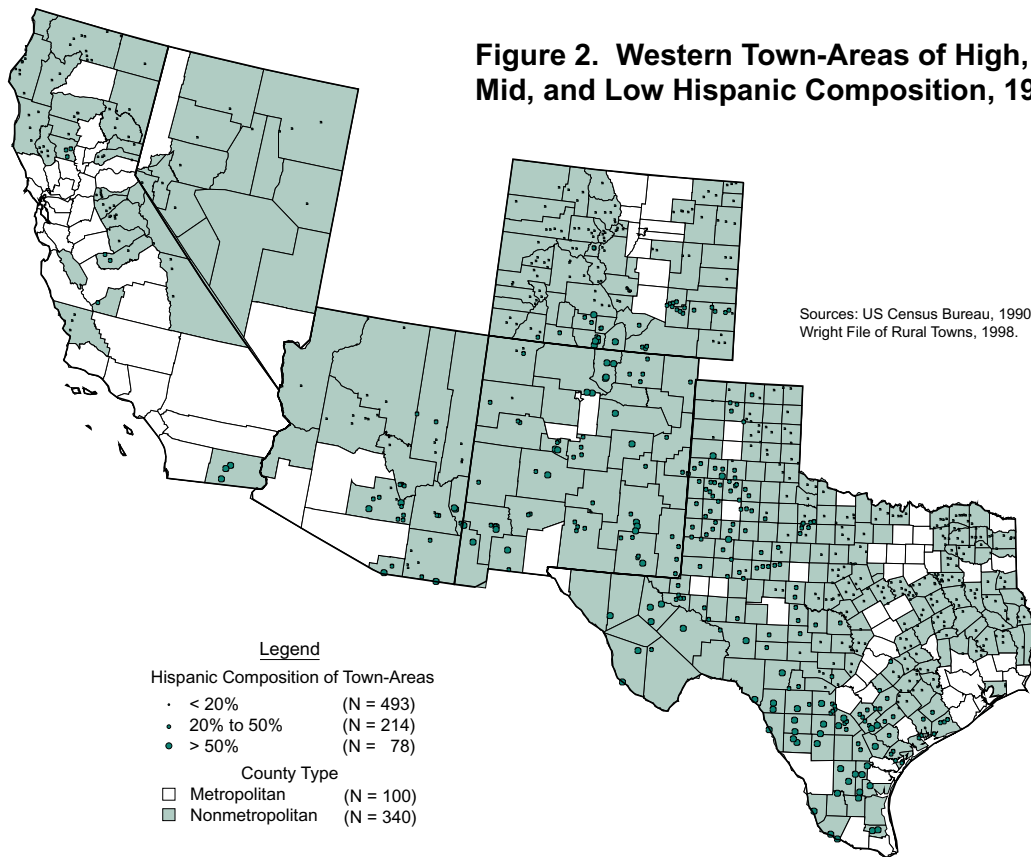
RESULTS

Geographic Availability to Physicians: Physician-to-population ratios among Southern town-areas did not vary directly or significantly with African American composition (**Table 1**). In Western states, however, town-areas of over 50% Hispanic composition had physician-to-population ratios that were nearly one-third lower than town-areas with fewer than 20% Hispanics. Adjusting for state-by-state location and socio-demographic factors did not alter the finding that town-areas with higher Hispanic composition had fewer physicians per population.

The likelihood of being without a single physician did not vary in a regular fashion with the African American composition of Southern town-areas (ranging non-linearly from 53.7% to 61.0%) or with the Hispanic composition of Western town-areas (ranging from 47.2% to 52.3%).

Geographic Distance to Hospitals: Town-areas of higher African American and Hispanic composition were located further from the nearest hospital offering each of the four levels of service than town-areas with proportionately fewer minorities (**Figures 3 and 4**). For example, the average distance to the nearest hospital offering

Figure 2. Western Town-Areas of High, Mid, and Low Hispanic Composition, 1990



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basic services was 2.3 miles further (25%) for Southern town-areas with over 60% African Americans than for town-areas with less than 20% African Americans. For Hispanics, the distance to the nearest hospital offering each level of service was about 30% longer for town-areas with high versus low proportions of Hispanics.

In most cases, the greater distance to hospitals of high versus low minority town-area groups remained significant even after adjusting for between-group differences in state-to-state location and population poverty, age, and size.

Table 1. Availability of physicians to town-areas in Southern states, by African American composition, and in Western states, by Hispanic composition.

	Southern town-areas				Western town-areas		
	Less than 20% African Amer. (n= 767)	20 to 40% African Amer. (n= 605)	40 to 60% African Amer. (n= 400)	Over 60% African Amer. (n= 171)	Less than 20% Hispanic (n= 493)	20 to 50% Hispanic (n= 214)	Over 50% Hispanic (n= 78)
Mean total physicians per 100,000 population	19.2	21.7	25.6	17.7	31.2	30.7	24.2
Percent of town-areas with at least one physician	39.0%	43.5%	46.3%	40.9%	47.7%	52.8%	52.6%

LIMITATIONS

This study showed distances to physicians and to the closest hospitals offering various levels of service, but did not assess whether these physicians and closest facilities would accept all patients or impose other barriers forcing individuals to travel still further for care. Many providers will not accept all patients covered by Medicaid, Medicare and some private insurers.

The number of Hispanics in the U.S. and in its rural areas has grown rapidly since that reflected in the 1990

data of this study. This growth may have made this study's lessons all the more important, but perhaps the recent settlement patterns of rural Hispanics differ from those of earlier settlers, and relative travel distance to physicians and hospitals has changed.

CONCLUSIONS AND RECOMMENDATIONS

This study confirmed that rural minorities sometimes face longer travel distances to health care services than non-minority rural individuals. Specifically, individuals living in Western communities with high Hispanic compositions have poorer geographic access to physicians and hospitals than individuals in Western communities with fewer Hispanics. Similarly, Southern rural communities with high African American proportions typically lie further from hospitals than predominantly White Southern communities, but concentrations of local physicians are comparable.

From a policy perspective, the findings of this study suggest that part of the remedy to disparities in health care access should be to help predominantly minority rural communities in the South and West overcome the longer distances they must travel to hospitals, and to relieve the relative local shortage of physicians in predominantly Hispanic Western rural communities. Organized transportation services sponsored by hospitals and practices are a natural solution. Vans operating on a regular schedules or on an as-needed basis would help those without personal transportation for whom any distance to care—even without the 6 to 12 extra miles due to their race or ethnicity—may make getting care impossible. Organized and affordable transportation services are preferable to relying solely on neighbors, whose good will can be over-taxed and whose schedules can be inconvenient or unworkable.

Distance to nearby minority communities should be considered when locating new rural hospitals, satellite clinics, community health centers, and physicians' offices. Current and new state and federal programs could draw rural providers closer to predominantly minority communities with financial incentives such as higher reimbursement rates for care rendered, tax benefits, and educational loan repayment incentives.

Reference

Wright GE. *File Description for Town Characteristics of Rural Places*. University of Washington, Seattle, WA, October, 1998.

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Figure 3. Hospital Proximity of Southern Town-areas by African American Composition

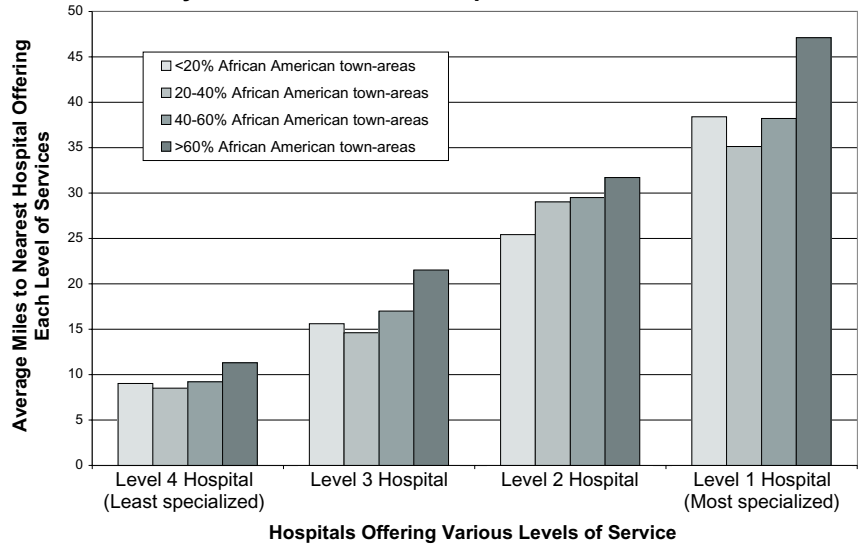


Figure 4. Hospital Proximity of Western Town-areas by Hispanic/Latino Composition

