Robert Wood Johnson Foundation

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More Doctors Not Only Key to Improving Primary Care in Rural America

Research on the effectiveness of health policy options in rural health care

SUMMARY

Researchers from the University of North Carolina at Chapel Hill examined the long-term impact of federal, state, and private investment on rural communities' physician recruitment and physician workforce stability.

The project was part of the Robert Wood Johnson Foundation (RWJF) national program *Generalist Provider Research Initiative*.

Key Findings

The key findings reported in an article in the *Journal of Rural Health* and in a report to RWJF include the following:

- There is a positive relationship between direct federal investments in health care and per capita physician supply, but the overall effect of funds on supply is small.
  - Federal solutions may not be the most efficient way to increase the number of physicians in a community, and substantially different or more vigorous mechanisms might be required.
- If the goal is to expand access to primary care, then efforts to increase the supply of midlevel practitioners might be just as important.

Funding

RWJF provided $304,646 in funding from February 1997 to April 1999 to support the project.

THE PROBLEM

The 1980s saw a lessening of the shortage of physicians in rural areas, but the improvements were small. Non-metropolitan-area physician supply grew by 18 percent—

from 83 to 97 physicians per 100,000 population in the 1980s—still less than half the number of physicians per capita in metropolitan areas.

Many of the characteristics of non-metropolitan areas—such as sparse population, distance from metropolitan centers, relatively high numbers of poor, elderly residents in small towns, poor transportation, and lack of financial resources—suggest that rural residents may be in worse health than their urban counterparts and may require more-extensive medical care.

The National Health Service Corps is one of several federal efforts to address rural physician issues. Other efforts have included attempts to persuade physicians to settle in rural areas through various forms of incentives.

The questions that were being asked in the health policy community during the Generalist Provider Research Initiative were whether the geographic distribution of physicians has been affected since the implementation of these recruitment strategies and whether those strategies are likely to have any long-term effectiveness.

THE PROJECT

This project's overall purposes were to assess how well efforts to recruit and support primary care physicians in rural America had worked since the early 1980s and to propose a set of recommendations for how best to attract, support, and maintain a physician presence in small, medically underserved rural communities.

Methodology

Evaluating the effectiveness of major federal, state, and private programs required the formulation and testing of statistical models that identify the town characteristics that affect physician gains or losses. The data sets that were needed to estimate those models had to be assembled mainly from secondary data from various sources: the census of the United States, the American Medical Association (AMA) Masterfile, the American Hospital Association, the US Department of Commerce, the Health Resources and Services Administration (HRSA)'s Area Resource File, and other HRSA-collected data.

The study covered the entire universe of all US towns with populations of more than 200 people located in non-metropolitan areas. Each town or geographic unit identified in the study had specific geographic, socioeconomic, political, and physician data attached to it, which facilitated the generation of a variety of descriptive measures and the development and testing of statistical models of physician location.

The project constructed two maps. The first map—*US Rural Towns with Subsidized Primary Care Programs and a Comparison Sample of Towns*—1980, displays all of the towns where programs have been located and the comparison towns. The second map—

Locations of National Health Service Corps Placements: 1972–1997—displayed the locations of all National Health Service Corps placements from 1972 through 1997.

FINDINGS

Following are the findings, some of which appeared in an article in the *Journal of Rural Health,* and some of which appeared in the final report to RWJF.

- **There is a positive relationship between direct federal investments in health care and per capita physician supply, but the overall effect of funds on supply is small.** So, while federal funds have had an impact, they are likely not the most efficient way to increase the number of physicians in a community.
- **The study does not show whether federal funds that target the health care system have a greater or lesser effect than any other type of federal assistance or other state or federal policy alternatives.** For example, community development grants might spur income and increase the demand for health care. Perhaps demand-side subsidies of consumption through expanded Medicaid eligibility or higher Medicaid payments, for example, might be a more-efficient uses of government funds.
- **If the goal is to expand access to primary care, then efforts to increase the supply of midlevel practitioners might be just as important, especially in areas geographically isolated from hospitals and/or of low population density.**

Communications

The project staff produced a series of reports, abstracts, journal articles, presentations, and the two maps previously mentioned. The two maps have been widely disseminated. The second map—*Locations of National Health Service Corps Placements: 1972–1997*—was prominently displayed at the Twenty-fifth Anniversary Conference of the National Health Service Corps and since then, in the office of the assistant surgeon general and director of the Bureau of Primary Health Care. (See the Bibliography for details.)

AFTERWARD

This data collection and development effort has created a tool capable of supporting a variety of research. Several such projects have been undertaken at the University of Washington. They include an analysis of the ability of rural communities to provide sufficient markets for primary care physicians, a study of the location pattern of female physicians in rural areas, and a study of the characteristics of rural communities that have been successful at attracting international medical graduates.

The data set has also been used in RWJF's evaluation of the Southern Rural Access Project, a program designed to help improve access to basic health care in Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, East Texas, and West Virginia, which are eight of the most rural, medically underserved states or areas in the country.

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Computer-Readable Data Tapes and Documentation

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Maps

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