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**Project Summary**
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# 2005 Physician Supply and Distribution in Rural Areas of the United States

## Background

An adequate supply of providers is a basic requirement for ensuring access to health care. The disparity that persists between urban and rural physician supply is even more prominent in smaller and more remote rural areas. Understanding current physician distribution and supply in different types of rural areas across the nation is a crucial step in addressing health care access inequities.

## Study Aim

To describe the supply and distribution of clinically active physicians in the United States in 2005, with emphasis on generalists in rural areas. The role of generalist osteopathic doctors (DOs) and international medical graduates (IMGs) in rural locations is also examined.

## Study Design

Clinically active, nonresident, nonfederally employed MD and DO physicians aged 70 or younger were identified through AMA and AOA 2005 Masterfiles. Practice locations were categorized as urban, large rural, small rural, or isolated small rural by Rural-Urban Commuting Area codes. Analyses were performed at national, Census Division, and state levels.

## Major Findings

- This study demonstrated uneven rural-urban distribution of physicians, with wide variation shown among rural locations.
- The ratio of physicians to 100,000 population was 191.1 nationally but varied from 209.6 in urban locations to 52.3 in the most isolated rural areas.

**Table 1: Percent Patient Care Physicians by Specialty within Rural-Urban Status Categories**

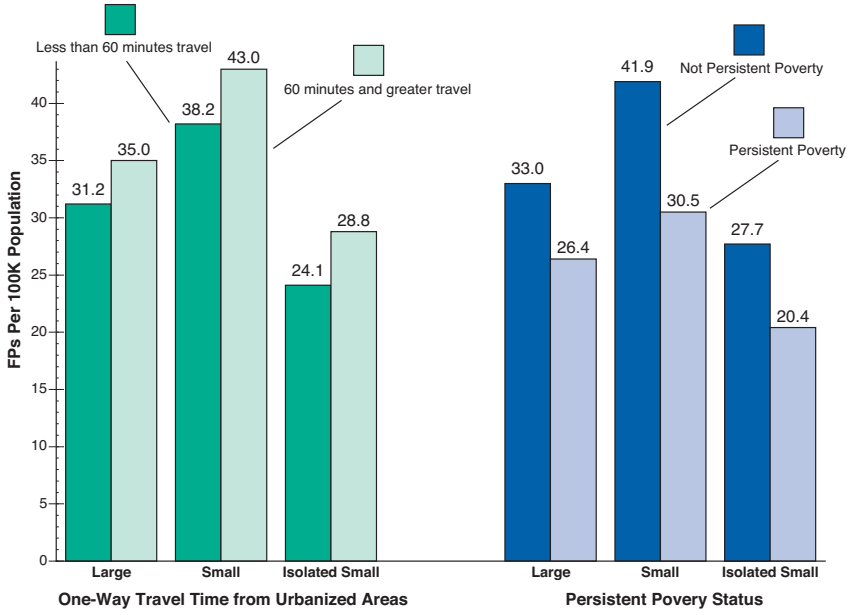
| | % of Physicians Within Geographic Category | | | | | |
|---|---|---|---|---|---|---|
| | U | Rural Total | LR | SR | ISR | Grand Total |
| **Generalists** | **34.3** | **48.5** | **41.6** | **58.9** | **68.1** | **35.9** |
| Family medicine | 12.6 | 29.4 | 22.1 | 40.5 | 50.8 | 14.5 |
| General internal medicine | 13.9 | 13.2 | 13.1 | 13.5 | 13.4 | 13.8 |
| General pediatrics | 7.7 | 5.8 | 6.4 | 5.0 | 3.9 | 7.5 |
| **Medical specialists** | **14.2** | **8.4** | **10.1** | **5.3** | **4.9** | **13.6** |
| Cardiology | 3.5 | 2.0 | 2.5 | 1.2 | 0.9 | 3.3 |
| **Surgical specialists** | **22.1** | **22.1** | **24.9** | **19.0** | **12.0** | **22.1** |
| General surgery | 3.3 | 5.8 | 5.5 | 7.0 | 4.7 | 3.6 |
| Obstetrics-gynecology | 6.1 | 5.7 | 6.4 | 4.8 | 2.8 | 6.0 |
| Ophthalmology | 2.8 | 2.4 | 3.0 | 1.5 | 0.8 | 2.8 |
| Orthopedics | 3.2 | 3.9 | 4.5 | 3.2 | 1.7 | 3.3 |
| **Pediatric specialists** | **1.6** | **0.3** | **0.4** | **0.3** | **0.3** | **1.5** |
| **Other specialists** | **27.7** | **20.6** | **23.0** | **16.5** | **14.6** | **26.9** |
| Anesthesiology | 6.0 | 3.6 | 4.3 | 2.4 | 1.9 | 5.7 |
| Emergency medicine | 4.2 | 4.6 | 4.7 | 4.4 | 4.4 | 4.2 |
| Pathology | 2.1 | 1.6 | 1.9 | 1.1 | 0.9 | 2.0 |
| Psychiatry | 5.9 | 3.8 | 4.2 | 3.2 | 2.9 | 5.7 |
| Radiology | 4.4 | 3.9 | 4.4 | 3.0 | 2.2 | 4.4 |
| **Total % nongeneralist specialties** | **65.6** | **51.4** | **58.4** | **41.1** | **31.8** | **64.1** |
| **Grand total** | **99.9*** | **99.9*** | **100.0** | **100.0** | **99.9*** | **100.0** |

* Rounding error.
U = Urban, LR = Large Rural, SR = Small Rural, ISR = Isolated Small Rural.

The WWAMI RHRC receives its core funding from the Health Resources and Services Administration's Office of Rural Health Policy.

- Generalists, especially family practitioners (FPs), were the mainstay of physician care in rural areas, with specialist representation generally dropping as rural locations become smaller and more isolated (Table 1).
- DOs and IMGs made substantial contributions to health care in rural areas, with DOs comprising 10.4% and IMGs 19.3% of rural generalists nationwide.
- Rural FP/population ratios were highest where travel time to an urbanized area was 60 minutes or more, but in persistent poverty areas ratios were lower than in either nonpersistent poverty areas or where travel time to an urbanized area reached 60 minutes or more (see Figure 1).

**Figure 1: Family Practitioners per 100,000 Population by Rural Type by Travel Time and Persistent Poverty Status**




## Conclusions

Rural areas, especially isolated small ones, continue to have low supplies of generalist physicians. Several developing trends, including the decline in U.S.-educated medical graduates entering family medicine residencies, post-9/11 impediments for IMGs entering the country, reductions in J-1 visa waiver applicants, and reductions in Title VII funding, threaten to exacerbate this problem.

### *Policy Implications*

Because of the importance of generalist physicians to rural health care, efforts to recruit and retain allopathic, osteopathic, and IMG generalists in rural locations are critical. Rural areas vary from each other across a complex array of economic, demographic, and infrastructure factors that influence conditions at the local level. When addressing health care conditions in rural places, policies need to be crafted that are responsive to these differences as well as differences in physician supply and specialty. Furthermore, physician professional, economic, and social needs must also be addressed.

This project was supported by a grant from the federal Office of Rural Health Policy. Findings are more fully described in WWAMI RHRC Final Report #116: Fordyce MA, Chen FM, Doescher MP, Hart LG. 2005 Physician Supply and Distribution in Rural Areas of the United States. November 2007.

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