

## Comprehensive Medical School Rural Programs Produce Rural Family Physicians

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**Health insurance expansion expected from the Affordable Care Act is likely to exacerbate the long-standing and critical shortage of rural and primary care physicians over the next decade. Comprehensive medical school rural programs, from which most graduates ultimately enter primary care disciplines and serve rural areas, offer policy makers an interesting potential solution.**

In an age of medical school expansion and experimentation, few schools offer programs that focus on addressing the growing shortage of primary care physicians in rural areas.<sup>1</sup> One such group, the comprehensive medical school rural programs,<sup>2</sup> typically offers preferential admission of students likely to practice primary care in rural areas, strong mentoring, and a required rural curriculum.

We used the American Medical Association Physician Masterfile to determine the current location and specialty of graduates of three rural programs from their inception until 2005 (see accompanying table). The programs were Jefferson Medical College's Physician Shortage Area Program, inception 1978; the University of Minnesota Medical School, Duluth, inception 1976; and the University of Illinois College of Medicine at Rockford's Rural Medical Education Program, inception 1997.<sup>2</sup> Of 1,551 graduates from these three programs, 63.1% were practicing in a rural area in 2010 (according to the Rural Urban Density Typology<sup>3</sup>), and 60.0% were practicing primary care (family medicine, general internal medicine, or general pediatrics), with most practicing family medicine (50.4%). Overall, 82.0% of graduates from the three rural programs were practicing either in a rural area or in primary care, and 41.1% did both. In addition, 61.6% were practicing in the state of their medical school. Ranges of outcomes for the rural programs were similar, with 45.0% to 76.4% of graduates practicing in a rural area, 58.7% to 71.7% practicing primary care, and 76.2% to 89.6% in either a rural area

**Table. Practice Area and Specialty of Graduates of Three Medical School Rural Programs**

Specialty	Rural	Urban	Total
Family medicine	556	225	781 (50.4%)
General internal medicine and general pediatrics	82	68	150 (9.7%)
Non-primary care	341	279	620 (40.0%)
Total	979 (63.1%)	572 (36.9%)	1,551 (100.0%)

Information from American Medical Association. AMA Physician Masterfile; 2010.

or in primary care. Among graduates who did not go into primary care, 55% were practicing in a rural area.

Given that only one-third of U.S. medical school graduates typically choose primary care<sup>1</sup> and that 11% practice in rural areas,<sup>4</sup> these rural programs almost double the percentage of primary care graduates and increase rural physicians almost sixfold. These findings suggest that expansion of comprehensive medical school rural programs may represent an effective option for increasing the supply of rural and primary care physicians.

The information and opinions contained in research from the Graham Center do not necessarily reflect the views or the policy of the AAFP. Policy One-Pagers are available from the Graham Center at <http://www.graham-center.org>.

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### REFERENCES

1. Mullan F, et al. The social mission of medical education: ranking the schools [published correction appears in *Ann Intern Med*. 2010;153(3):212]. *Ann Intern Med*. 2010;152(12):804-811.
2. Rabinowitz HK, et al. Medical school programs to increase the rural physician supply: a systematic review and projected impact of widespread replication. *Acad Med*. 2008;83(3):235-243.
3. Isserman AM. In the national interest: defining rural and urban correctly in research and public policy. *Int Reg Sci Rev*. 2005;28(4):465-499.
4. Chen F, et al. Which medical schools produce rural physicians? [published correction appears in *Acad Med*. 2010;85(6):998]. *Acad Med*. 2010;85(4):594-598. ■