

INTERNATIONAL MEDICAL GRADUATES IN RURAL, UNDERSERVED AREAS

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THE PROBLEM:

The benefit of international medical graduates (IMGs) in compensating for local physician shortages may be offset by the financial burden of a national physician oversupply. Since 1988, the rate of growth in the number of international medical graduates in residency training and practice in the United States has exceeded the growth of domestic medical graduates. The number of IMG residents has increased more than twofold between the 1988-89 academic year and the 1995-96 academic year. Such a dramatic increase was made financially possible, at least in part, because the Medicare program has been financing a substantial portion of US graduate medical education. As the number of IMGs in residency programs and the US physician workforce has increased, many policymakers have become concerned that there are too many international medical graduates competing for residency positions, employment opportunities, and public funds with US medical graduates. Yet any reduction in the number of international medical graduates may affect access to health care in rural areas, particularly if IMGs are practicing in rural, underserved areas.

THE STUDY:

To better understand whether IMGs are likely to practice in rural, underserved areas, researchers calculated the percentage of primary care IMGs in the US primary care physician workforce in rural areas. The data were stratified by Health Professional Shortage Area (HPSA) designation as a measurement of underservice, resulting in separate IMG percentages for rural, whole county HPSAs, partial county HPSAs, and non-HPSAs. The 1996 American Medical Association Physician Masterfile and the U. S. Bureau of Health Professions 1997 Area Resource File were used.

KEY FINDINGS:

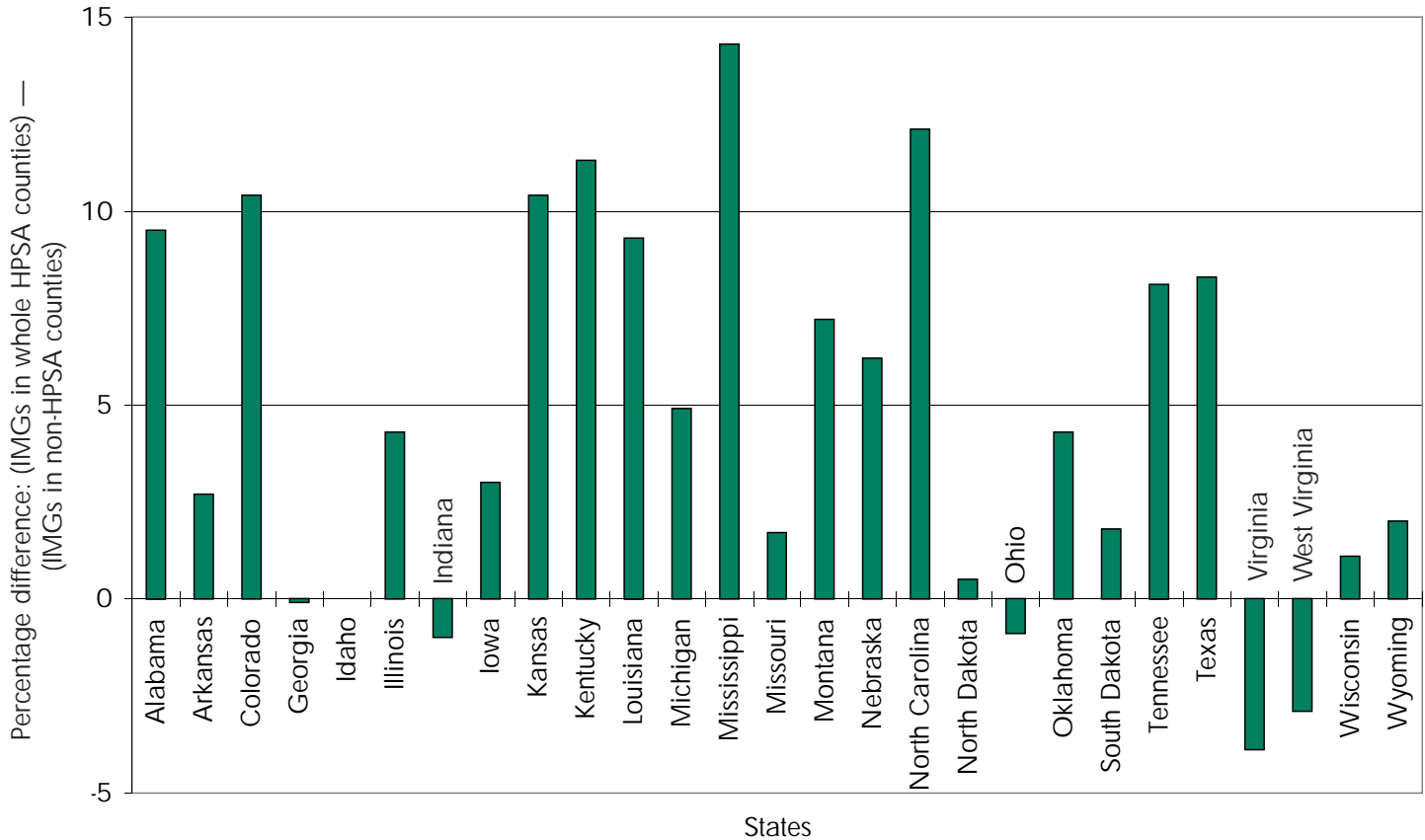
International Medical Graduates as Percentage of Physicians in Nonmetropolitan Counties, US, 1996

	Primary Care	Specialists	All Physicians
Whole County HPSAs	18.7%	25.5%	21.0%
Partial County HPSAs	15.2%	19.5%	17.5%
Non-HPSAs	14.3%	18.9%	16.8%

Sources: Area Resource File, 1997; AMA Physician Masterfile, 1996.

- ◆ International medical graduates do constitute a greater percentage of the US primary care physician workforce in rural, underserved areas than in rural areas that do not have a physician shortage. This finding is substantiated in most cases at the national, Census region, and state scales of analysis.
- ◆ There is also substantial interstate variation in the extent to which IMGs practice in rural, underserved areas. Some states, such as Mississippi, North Carolina, and Montana, have markedly higher percentages of IMGs in rural, underserved areas than in rural areas that do not have a physician shortage. Variation in geographical distribution vis-à-vis underservice is often much more apparent at the state scale of analysis than at the regional or national scales of analysis.

IMG Percentages by State: Nonmetropolitan Whole HPSAs versus Nonmetropolitan Non-HPSAs



Note: only states containing at least three nonmetropolitan whole county HPSAs and at least three nonmetropolitan non-HPSAs are included.
Sources: AMA Physician Masterfile, 1996; Area Resource File, 1997.

POLICY IMPLICATIONS:

This study shows that IMGs are proportionately more likely than US medical graduates to practice in rural, underserved areas. However, the findings also show substantial interstate variation in the geographical distribution of IMGs. Why is there so much interstate variation in the extent to which IMGs practice in rural, underserved areas?

The analysis of IMG location by state raises the issue of the importance of policy-making at that level. State policies can play a major role in influencing IMG distribution, especially when states are well-informed about the distribution of IMGs in all or part of their states. States that are better informed in terms of identifying facilities likely to hire IMGs may be in a stronger position to help prevent, recruit or allow IMGs to practice within the state. Not all states have equal means to influence the distribution of the physician workforce, and not all states have similar written or unwritten policies toward IMGs, which may be reflected in the uneven distribution of IMGs. Policies that affect IMG distribution are varied and complex, and include state policies toward local recruitment, health workforce planning, policies toward federally requested exchange visitor visa waivers, administration of exchange visitor visa waivers, and regulations toward IMG licensure requirements. Given the complex interweaving of federal, state, and local policies, there is a strong need for greater collaboration, coordination, and consistency in policies toward IMGs.

At this time, the literature has not documented the impact of written and unwritten state policies on IMG distribution. Further research is needed to study state policies and their potential impact on exclusion or inclusion of IMGs by state, or by geographic areas within a state.

Although state policies may be a key factor in IMG distribution, it would be an oversimplification to insist that the interstate variation in IMG distribution indicates that policy or legal issues are the single most important factors in IMG location, since the same geographical pattern can occur under other conditions. There may be many cultural and social factors affecting IMG location that are revealed at finer geographical scales, and which affect the state-by-state distribution of IMGs. Among the many possible reasons why IMGs help alleviate rural underservice more so in some states than in

Post-Resident IMGs as Percentage of Primary Care Physician Workforce in Nonmetropolitan Whole County HPSAs, Partial County HPSAs, and Non-HPSAs, 1996

State or Region	IMGs as Percentage of Primary Care Physicians			Number of Primary Care IMGs			Number of Nonmetropolitan Counties		
	Whole HPSA	Partial HPSA	Non-HPSA	Whole HPSA	Partial HPSA	Non-HPSA	Whole HPSA	Partial HPSA	Non-HPSA
USA	18.7%	15.2%	14.3%	663	1,811	1,503	715	755	779
Northeast	22.2%	17.5%	21.9%	6	419	87	3	75	10
Connecticut	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
Massachusetts	N/A	N/A	5.0%	N/A	N/A	1	0	0	2
Maine	N/A	7.2%	N/A	N/A	30	N/A	0	11	0
New Hampshire	N/A	8.5%	8.5%	N/A	15	6	0	4	2
New Jersey	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
New York	23.1%	26.7%	31.6%	6	168	50	2	19	3
Pennsylvania	0.0%	21.9%	23.9%	0	197	28	1	31	2
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
Vermont	N/A	3.3%	6.3%	N/A	9	2	0	10	1
Midwest	18.2%	15.5%	15.2%	157	409	739	193	249	391
Illinois	38.5%	36.1%	34.2%	25	52	213	17	10	47
Indiana	18.2%	22.1%	19.2%	22	23	93	20	6	29
Iowa	10.3%	10.4%	7.3%	4	20	42	10	23	56
Kansas	23.0%	11.8%	12.6%	26	8	57	31	6	59
Michigan	16.0%	16.6%	11.1%	12	95	27	10	33	15
Minnesota	6.3%	4.9%	6.9%	1	15	33	2	28	39
Missouri	12.8%	21.5%	11.1%	29	14	65	45	8	39
North Dakota	40.0%	16.5%	39.5%	10	26	15	14	23	12
Nebraska	10.0%	5.8%	3.8%	3	8	9	14	36	37
Ohio	15.9%	26.7%	16.8%	10	81	100	9	14	26
South Dakota	10.7%	12.9%	8.9%	3	13	15	14	29	20
Wisconsin	19.4%	11.0%	18.3%	12	54	70	7	33	12
South	20.4%	19.3%	14.4%	465	744	624	434	260	310
Alabama	17.6%	18.9%	8.1%	21	65	9	21	20	5
Arkansas	10.0%	13.7%	7.3%	10	29	20	21	20	22
Delaware	N/A	N/A	36.5%	N/A	N/A	27	0	0	1
District of Columbia	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
Florida	44.9%	41.2%	50.0%	35	145	1	10	22	1
Georgia	21.5%	15.1%	21.6%	44	53	94	48	42	27
Kentucky	24.4%	31.7%	13.1%	42	80	63	42	21	35
Louisiana	21.3%	14.9%	12.0%	47	18	9	27	7	6
Maryland	N/A	29.3%	17.4%	N/A	39	15	0	6	3
Mississippi	15.8%	11.9%	1.5%	51	21	3	49	11	13
North Carolina	21.9%	9.5%	9.8%	28	37	50	19	18	28
Oklahoma	14.5%	13.8%	10.2%	22	17	37	19	14	30
South Carolina	6.9%	6.3%	0.0%	9	20	0	17	11	2
Tennessee	19.1%	10.9%	11.0%	35	14	44	32	11	25
Texas	23.2%	18.9%	14.9%	70	53	98	93	27	76
Virginia	13.5%	17.5%	17.4%	10	40	78	18	14	27
West Virginia	44.6%	25.3%	47.5%	41	113	76	18	16	9
West	9.4%	7.9%	5.7%	35	239	53	85	171	68
Alaska	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
Arizona	5.9%	11.5%	0.0%	1	32	0	1	7	1
California	12.5%	11.0%	13.2%	1	46	17	1	19	4
Colorado	10.4%	5.3%	0.0%	5	12	0	20	23	9
Hawaii	N/A	11.4%	8.0%	N/A	20	4	0	2	1
Idaho	3.7%	2.4%	3.7%	1	6	3	10	24	7
Montana	10.3%	4.2%	3.1%	3	8	7	13	20	22
New Mexico	12.8%	11.1%	27.8%	17	28	5	13	12	2
Nevada	9.7%	10.5%	0.0%	3	6	0	8	5	1
Oregon	0.0%	5.8%	4.9%	0	27	5	2	20	5
Utah	2.8%	7.6%	2.8%	1	10	1	10	12	2
Washington	0.0%	7.5%	4.5%	0	40	2	2	22	3
Wyoming	9.1%	8.0%	7.1%	3	4	9	5	5	11

Note: N/A = not applicable

Sources: AMA Physician Masterfile, 1996; Area Resource File, 1997.

others include: state policies, state-federal interaction, social and cultural networks, public perceptions of the status of IMGs, hospital recruitment efforts, the location of graduate medical education, and the location and activity of physician recruiters and lawyers seeking immigration pathways for clients. This study suggests that local and state conditions be given consideration in any policy that seeks to change the supply of IMGs in rural or other underserved areas.

Figure 3

PERCENTAGE OF POST-RESIDENT PRIMARY CARE PHYSICIANS WHO ARE INTERNATIONAL MEDICAL GRADUATES

Within Nonmetropolitan Whole-HPSA Counties, 1996

U.S. Census Regions



* This category includes 15 states. PA, WA, and OR have no IMGs in their whole-HPSA nonmetropolitan counties. The remaining states have no whole-HPSA nonmetropolitan counties.

Source: AMA Physician Masterfile, 1996; Area Resource File, 1997.

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