

Idaho's Physician Workforce in 2014

KEY FINDINGS

- In 2014 there were 165 physicians per 100,000 population providing direct patient care in Idaho, including 61 generalist physicians per 100,000 population.
- The mean age of Idaho's practicing physicians was 51 years.
- Women comprised 23% of the state's physician workforce but 33% of the generalists (including 41% of general pediatricians).
- Most rural areas of Idaho had fewer physicians per capita and many rural counties had higher percentages of physicians age 55 or older than urban areas.
- 29% of Idaho's family medicine/general practice physician workforce completed a residency in Idaho and 41% completed a residency in one of the WWAMI states: Washington, Wyoming, Alaska, Montana and Idaho.
- 11% of Idaho's physicians graduated from the University of Washington School of Medicine, a higher percentage than for any other school.

INTRODUCTION

The population of Idaho is growing and aging, and health care delivery and payment systems are undergoing major transformations. Important questions for healthcare policy and planning include whether there will be enough physicians in the right places and with the needed specialties to meet growing and changing demand. This Brief offers data on the size, distribution, and education history of Idaho's physician workforce, addressing the questions:

- *How many physicians practice in Idaho? (overall and by specialty group)*
- *How are physicians distributed by county, and by urban versus rural areas?*
- *How many physicians practice statewide and by county relative to the size of the population?*
- *What proportion of the physician workforce graduated from the University of Washington School of Medicine or completed a residency in Idaho or a WWAMI state?*

To estimate the physician workforce providing direct patient care in Idaho, analyses used data from the American Medical Association (AMA) Physician Masterfile (see Methods, Appendix A).

Of 3,032 physicians with Idaho licenses in 2014, 2,668 provided direct patient care.

NUMBER, DEMOGRAPHIC CHARACTERISTICS, AND DISTRIBUTION OF PHYSICIANS IN IDAHO

OVERALL SUPPLY AND DEMOGRAPHICS

Idaho's per capita physician supply is smaller than the national supply (Figure 1). In 2014, there were 3,032 physicians (188 per 100,000 population) with Idaho licenses and 2,668 (165 per 100,000 population) providing direct patient care in the state. Nationally, in 2012 there were 261 overall physicians per 100,000 population and 226 per 100,000 providing direct patient care¹. HRSA estimated that in 2010 there were approximately 66 primary care physicians per 100,000 U.S. population²; four years later, in 2014, Idaho had 61 generalist physicians per 100,000 population.

Table 1 shows the number of physicians in Idaho in 2014, total and by specialty group, as well as the number per capita.

The mean age overall and by specialty for most Idaho physicians was similar, between 48 and 54 years (Table 1). Thirty-nine percent were age 55 or older. Less than a quarter of Idaho's physician workforce were women, who comprise nearly a third of the generalist specialties (including 41% of general pediatricians) and 42% of obstetrician-gynecologists.

Figure 1. Idaho compared with national estimates of physicians per 100,000 population

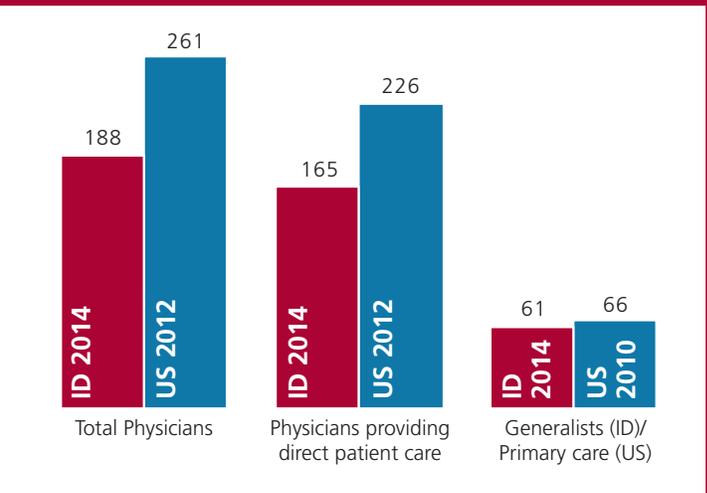


Table 1. Number, gender and age of Idaho physicians in 2014

Physicians providing direct patient care*	#	#/100,000 population	% Female	Mean Age (Years)	% Age 55 or Older
Total	2,668	165.4	23.4%	51.1	38.8%
Generalists	977	60.6	32.7%	49.8	34.5%
Family medicine/general practice	638	39.6	28.1%	50.0	35.4%
General internal medicine	199	12.3	41.2%	50.2	33.2%
General pediatrics	140	8.7	41.4%	48.4	32.1%
Surgeons	344	21.3	25.0%	52.5	42.2%
General surgery	88	5.5	10.2%	52.4	40.9%
Obstetrics-gynecology	159	9.9	41.5%	51.4	37.7%
Other surgery	97	6.0	11.3%	54.3	50.5%
Psychiatrists	85	5.3	28.2%	53.0	45.9%
Other Specialists	1,262	78.2	15.5%	51.6	40.7%

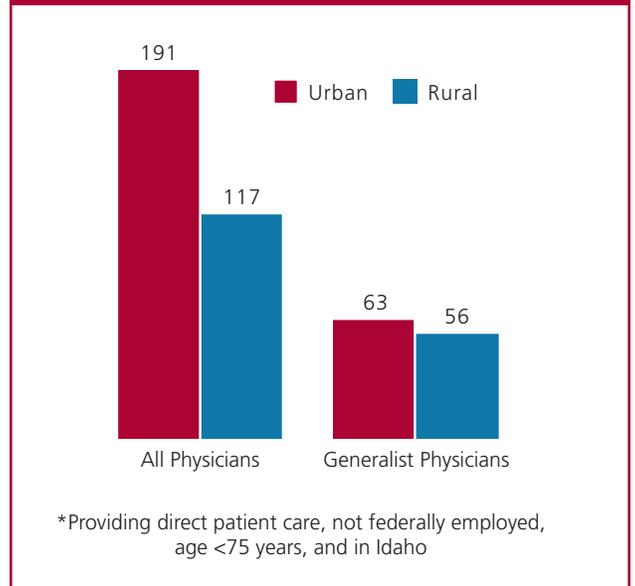
*not federally employed, age <75 years, in Idaho

DISTRIBUTION

Fewer physicians provided direct patient care per 100,000 population in rural compared with urban areas of Idaho, although there was more rural-urban parity among practicing generalist physicians (Figure 2).

Table 2 (next page) details the rural-urban distribution of the state's physicians, overall and by specialty, and in addition shows their distribution among three sub-rural area types: large rural, small rural and isolated small rural. Figure 3 shows where rural and urban areas are located in Idaho. As expected, specialists congregated in urban areas where more specialty care services and larger hospitals are provided, and were almost entirely absent from isolated small rural areas.

Figure 2. Idaho physicians* in urban and rural areas (total and generalist specialties) per 100,000 population in 2014



The mean age of Idaho's practicing physicians was 51 years, and 39% were age 55 or older.

Less than a quarter of Idaho's physician workforce were women.

Figure 3. Location of urban and rural areas in Idaho

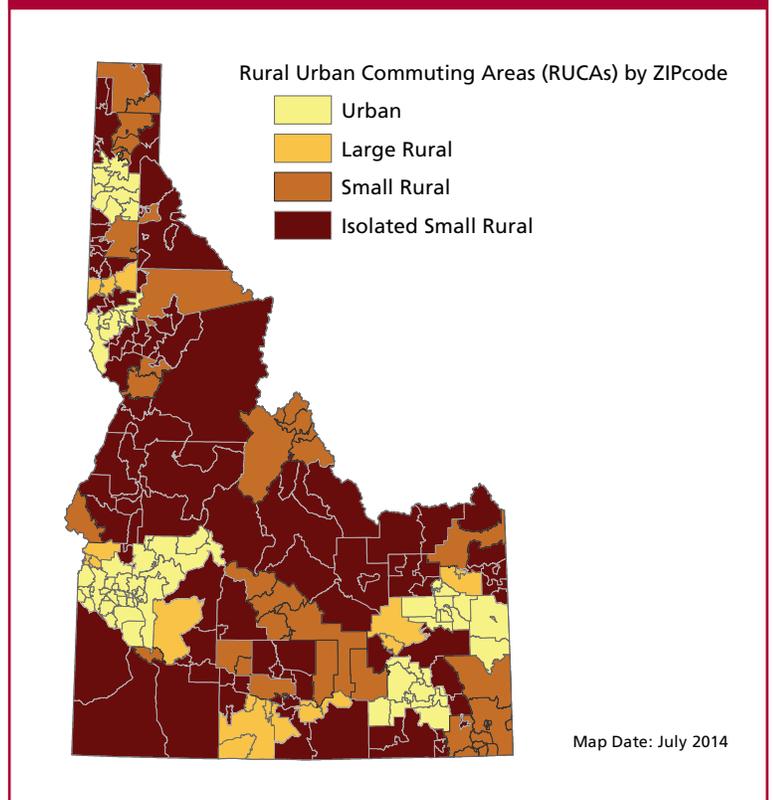


Table 2. Idaho physicians in urban, rural and sub-rural areas in 2014**

Physicians providing direct patient care*	Urban		Overall Rural		Large Rural		Small Rural		Isolated Small Rural	
	#	#/100,000 population	#	#/100,000 population	#	#/100,000 population	#	#/100,000 population	#	#/100,000 population
Total	2,026	190.8	642	116.5	351	152.1	232	136.7	59	39.1
Generalists	670	63.1	307	55.7	148	64.1	115	67.8	44	29.2
Family medicine/ general practice	410	38.6	228	41.4	96	41.6	93	54.8	39	25.9
General internal medicine	153	14.4	46	8.3	28	12.1	14	8.3	4	2.7
General pediatrics	107	10.1	33	6.0	24	10.4	8	4.7	1	0.7
Surgeons	268	25.2	76	13.8	45	19.5	28	16.5	3	2.0
General surgery	59	5.6	29	5.3	16	6.9	12	7.1	1	0.7
Obstetrics- gynecology	122	11.5	37	6.7	22	9.5	13	7.7	2	1.3
Other surgery	87	8.2	10	1.8	7	3.0	3	1.8	0	0.0
Psychiatrists	70	6.6	15	2.7	8	3.5	7	4.1	0	0.0
Other Specialists	1,018	95.9	244	44.3	150	65.0	82	48.3	12	8.0

*not federally employed, age <75 years, in Idaho

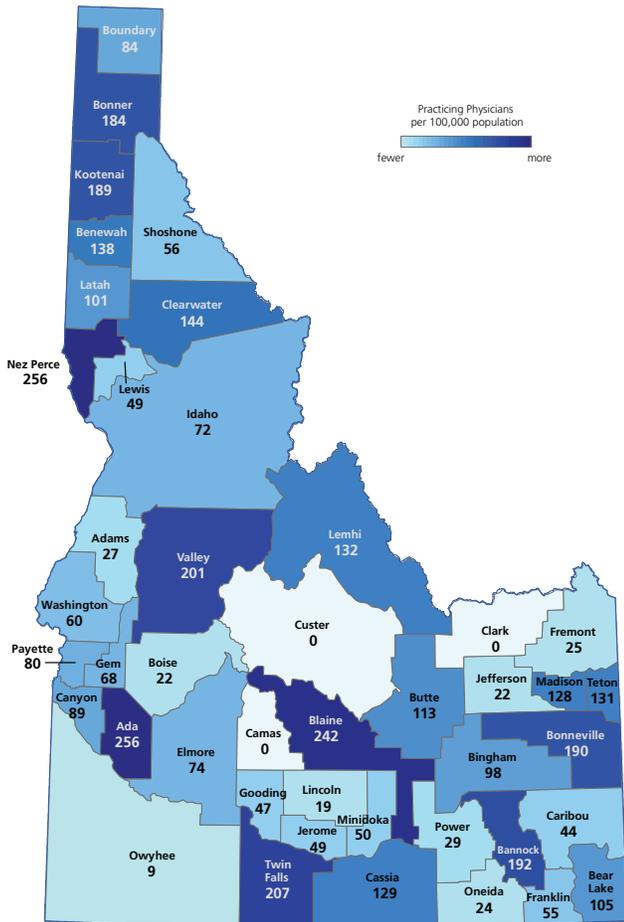
**Rural-urban determined using ZIP code RUCA taxonomy. Overall rural is a combination of the three rural subcategories.

Specialists congregate in urban areas and are almost entirely absent from isolated small rural areas.

The number of all physicians and generalist physicians per 100,000 population in each Idaho county are shown in Figure 4. Greater concentrations of physicians were found in the more urban counties; 3 Idaho counties had no practicing physicians.

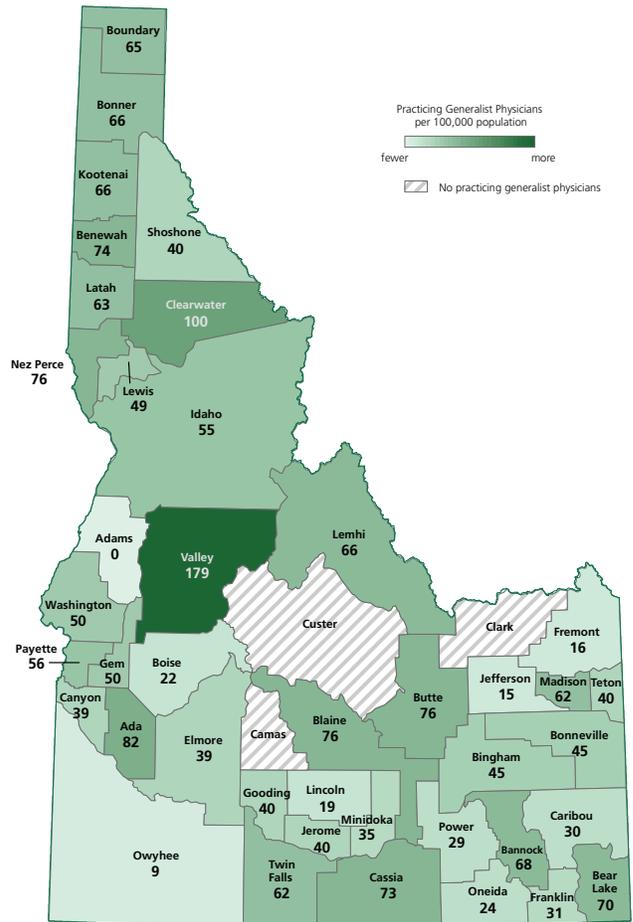
Figure 4: Idaho physicians per 100,000 population in 2014, by county

All physicians providing direct patient care



Data Source: AMA Physician Masterfile
Map Date: August 2014

Generalist physicians providing direct patient care

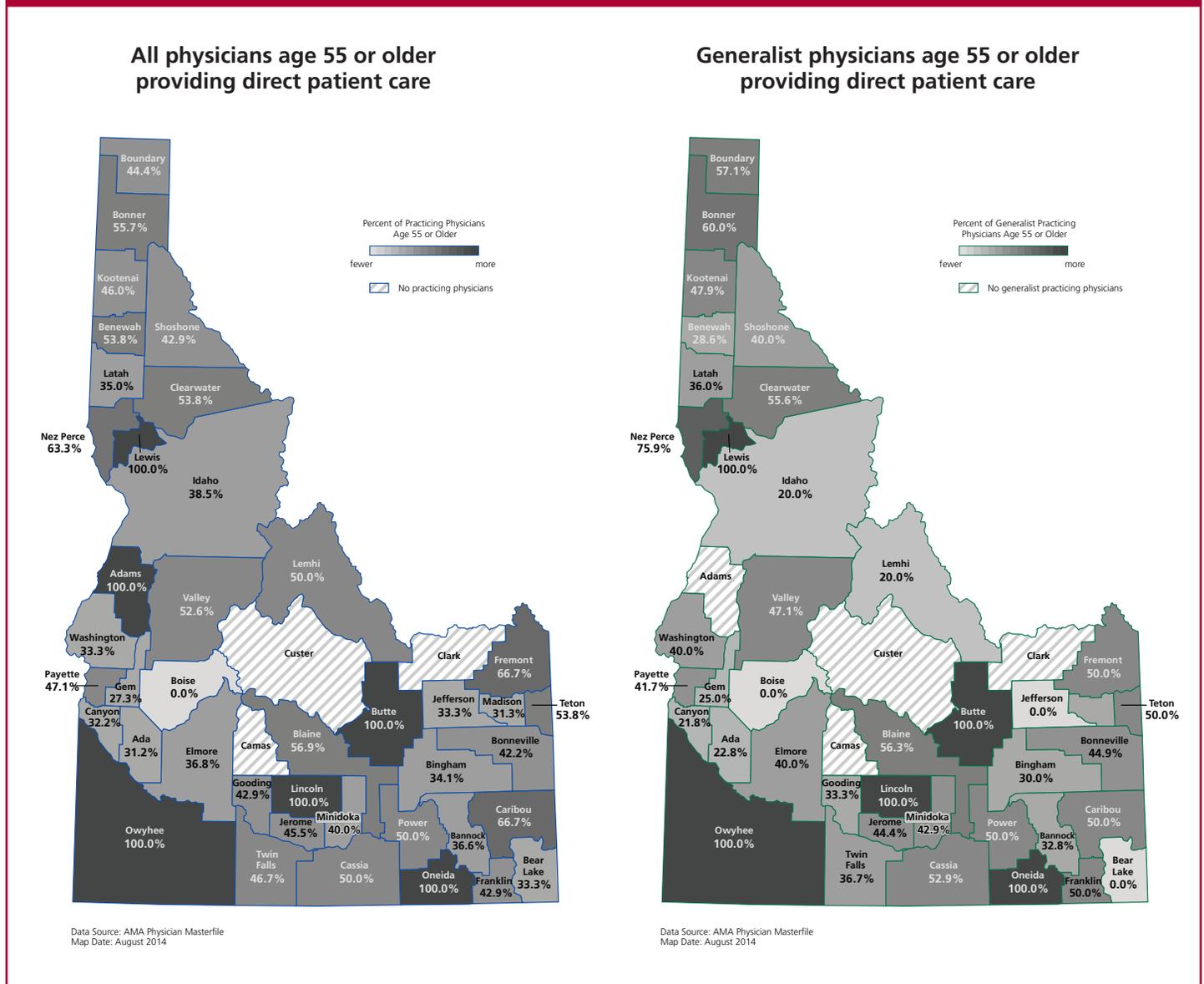


Data Source: AMA Physician Masterfile
Map Date: August 2014

Greater concentrations of physicians are found in the more urban counties; 3 Idaho counties have no practicing physicians.

As shown in Figure 5 many of Idaho's most rural counties had the highest percentages of physicians age 55 and older (e.g., Adams, Butte, Oneida, Owyhee). More than 50% of all physicians providing direct patient care in 15 Idaho counties were age 55 or older in 2014. In six counties, 100 percent of physicians were age 55 or older. The percentages of generalist physicians age 55 or older were generally lower than for overall physicians, but still were high among the more rural counties.

Figure 5: Idaho physicians age 55 or older in 2014, by county



In 38% of Idaho's counties, more than half of the physicians were age 55 or older.

EDUCATION AND TRAINING

The University of Washington School of Medicine led the list of medical schools from which Idaho's physicians graduated (Table 3). Twelve percent of Idaho's physicians completed a residency in California, smaller percentages completed residencies in Washington, Idaho, Utah and Texas (Table 4).

11% of Idaho's physicians graduated from the University of Washington School of Medicine and 7% completed a residency in Idaho.

Table 3: Top 5 medical schools from which Idaho physicians graduated*

	State	#	% of ID physicians who graduated from school
University of Washington School of Medicine	WA	288	10.8%
University of Utah School of Medicine	UT	211	7.9%
Loma Linda University School of Medicine	CA	86	3.2%
Oregon Health and Science University School of Medicine	OR	80	3.0%
University of Colorado School of Medicine	CO	67	2.5%

*among Idaho physicians in 2014 providing direct patient care, not federally employed, age <75 years

Table 4. Top 5 states where Idaho physicians completed a residency*

State	#	% of ID physicians who completed a residency in the state
CA	295	11.5%
WA	215	8.4%
ID	186	7.3%
UT	175	6.8%
TX	134	5.2%

*among Idaho physicians in 2014 providing direct patient care, not federally employed, age <75 years

As shown in Table 5, while 11% of Idaho’s overall practicing physician supply in 2014 graduated from the University of Washington, 17% completed a residency in a WWAMI state, including Idaho. Among generalist physicians these percentages were higher: 41% of family medicine/general practice physicians completed a residency in a WWAMI state, including Idaho, and 13% of all generalists graduated from the University of Washington School of Medicine.

The percentage of Idaho’s physicians who completed a residency in Idaho was higher among those who graduated from medical school since 2000 (Figure 6). It is not clear if this indicates a trend toward higher rates of post-residency retention by the more recent physician cohorts compared with older cohorts, or if there is a pattern for some physicians to remain in the state for a few years after completing residencies before migrating to other locations.

Figure 6. Idaho physicians* in 2014 who completed a residency in Idaho

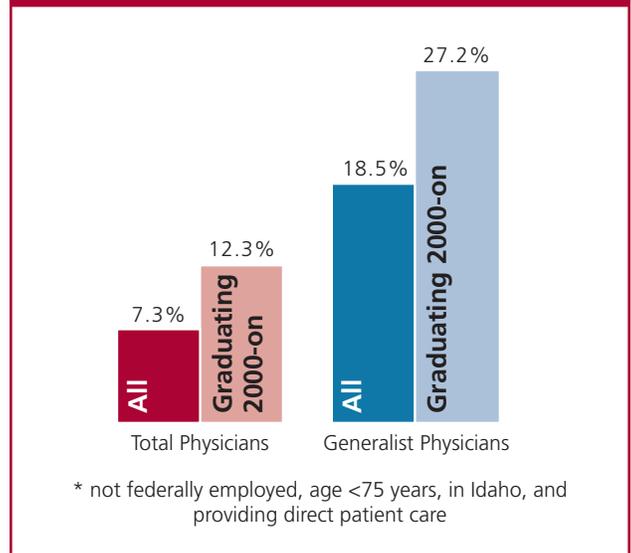


Table 5. Idaho physicians in 2014 who graduated from the University of Washington School of Medicine (UW SOM), and who completed a residency in Idaho or in any WWAMI* state

Physicians providing direct patient care**	Graduated from UW SOM		Completed a residency in ID***		Completed a residency in a WWAMI state	
	#	%	#	%	#	%
Total	288	10.8%	186	7.3%	428	16.7%
Generalists	131	13.4%	172	18.5%	298	32.0%
Family medicine/general practice	75	11.8%	172	28.8%	245	41.0%
General internal medicine	36	18.1%	0	0.0%	46	23.7%
General pediatrics	20	14.3%	0	0.0%	7	5.1%
Surgeons	34	9.9%	4	1.2%	31	9.1%
General surgery	9	10.2%	0	0.0%	12	14.0%
Obstetrics-gynecology	18	11.3%	4	2.5%	11	7.0%
Other surgery	7	7.2%	0	0.0%	8	8.3%
Psychiatrists	6	7.1%	0	0.0%	7	8.3%
Other Specialists	117	9.3%	10	0.8%	92	7.6%

* WWAMI = Washington, Wyoming, Alaska, Montana, and Idaho

** not federally employed, age <75 years, in Idaho

*** Percentages are calculated based on physicians for which residency state data were available. There were 105 records (3.9%) that were missing residency state (0 were missing medical school).

SUMMARY

Idaho's physician supply, on a per capita basis, is generally smaller than national averages. Differences in distribution are apparent between urban and rural areas of the state. While more physicians practice in urban areas, the numbers of generalists per capita in large and small rural areas are surprisingly similar. Very few physicians work in isolated small rural areas of Idaho, however.

About 11% of Idaho's total physician supply graduated from the University of Washington, where Idaho participates in the WWAMI medical education program. Medical students from Idaho have been supported by the state to attend the WWAMI program since 1972, and by 2013, 533 Idaho students had completed medical school there.

Residency is known to be highly associated with the location where a physician eventually chooses to practice and of the population he or she prefers to serve, and is therefore a useful recruitment tool.³ In 2012 Idaho ranked seventh among states for retaining physicians who complete a residency in-state, with a 56% retention rate in 2012.¹ This high rate of retention contributed to the 29% of all 2014 physicians in family medicine/general practice specialties who completed a residency in Idaho. The state has few physician residencies, however, so even with a high residency retention rate only 7% of all practicing Idaho physicians completed an in-state residency. While not an easy task, creating more residencies in locations and for specialties that serve the populations where shortages are greatest could be an effective tool to reduce disparities in the distribution of Idaho's physicians. This study also showed that higher percentages of physicians who were more recent medical school graduates (since 2000) completed a residency in-state (12% of the total). Efforts specifically designed to retain these young physicians could be a useful health workforce development strategy for Idaho.

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APPENDIX A: METHODS

The Idaho state physician supply data for this study came from the American Medical Association (AMA) Physician Masterfile, accessed in April, 2014. There were 3,032 total allopathic and osteopathic physicians with Idaho license records in the dataset. Those selected for these analyses were the 2,668 with 1) an in-state practice address (or mail address, when practice was not available), 2) who were age 74 or younger, 3) provided direct patient care, and 4) were not a federal employee. Physicians were assigned specialties using the AMA dataset's "primary" and "secondary" specialty fields. The primary specialty was reassigned to the secondary specialty for about 6% of physicians when there was indication from the listed secondary specialty that the physician was likely to practice more specialized medicine than the primary specialty indicated. Physician specialties were grouped into "Generalists" (family medicine/general practice, general internal medicine and general pediatrics specialties), "Specialists" (general surgery, obstetrics-gynecology and other surgery), and "Other Specialists". Data for psychiatrists were analyzed and reported separately. State population data came from a custom-prepared file of selected 2014 population data with ZIP codes cross-referenced to counties.⁴ Rural-urban status was determined using Rural Urban Commuting Area (RUCA) taxonomy.⁵

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