Oregon Healthcare
Workforce Institute

Oregon's 2010 Rural Physician Workforce: A Report of Key Findings

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Oregon Healthcare Workforce Institute

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Workforce Institute

Oregon Healthcare Workforce Institute

MISSION: To advance the development of a high-quality health care workforce in order to improve the health of every Oregonian.

Created out of an initiative from the Governor's office, the Oregon Healthcare Workforce Institute (OHWI) conducts research and collaborates with stakeholders to develop comprehensive statewide responses to the critical health care workforce needs in Oregon. OHWI is recognized by the Oregon State Legislature as a leader in addressing Oregon's health care workforce shortage and is designated as a workforce advisory entity to state agencies. OHWI is home to the Portland Metro Area Health Education Center.

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Oregon's 2010 Rural Physician Workforce

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Executive Summary

This report provides an overview of Oregon's rural physicians and reveals a physician workforce that represents a considerably different picture than that found in Oregon's more populous centers.

The OMB licensing database listed 14,646 physicians with an active license. Of those, 10,822 reported a practice location in Oregon. Of the physicians practicing in Oregon, 2,151 identified a rural practice location and 8,654 identified an urban (non-rural) practice location.

With 102 federally designated Health Professional Shortage Areas, the State of Oregon has a significant medically underserved population. The population as a whole (3,823,465) is growing at a much faster rate than the number of licensed, active physicians (10,822). As of 2010, 38% of the state's population lived in rural areas, and was being served by 20% of its physicians.

Oregon's 2010 rural physician workforce was older, largely self-employed, 76% male, worked primarily in clinics and private practice settings, and predominantly consisted of primary care specialties. Additionally, nearly 67% of rural physicians between the age of 27 and 34 years old were engaged in primary care – significantly more than their older peers.

The top-heavy age distribution of Oregon's rural physician workforce is cause for concern. As older rural physicians choose to retire and reduce patient care hours, the emerging physician workforce may not be sufficient in numbers to replace them. Additionally, shifting payment structures could pose another problem for rural Oregon. With more young physicians favoring employment with clinics or hospitals over private practice, the location and concentration of physicians in rural areas could begin to shift as the older, largely self-employed generation retires.

This combination of factors necessitates the need for prompt, efficacious and sustainable recruitment and retention of physicians to Oregon's rural areas.

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OREGON'S 2010 RURAL PHYSICIAN WORKFORCE

There is a documented shortage of primary care physicians in many areas of the United States. This is compounded by a geographic maldistribution that notably impacts rural areas and which is expected to worsen with time (U.S. Department of Health and Human Services, 2011; Bodenheimer & Pham, 2010; Keuhn, 2008; Cooper, 2004). The result is distinct medically underserved populations and geographic regions.

There has been a decrease in the overall proportion in U.S. medical school graduates choosing primary care careers (Brotherton, Rockey & Etzel, 2005). Additionally, according to the American Association of Medical Colleges, the number of first-year medical students who planned to practice in a small town or rural area fell from 3.4% in 2008 to 2.8% in 2010 (AAMC, 2010). This problem is further compounded by a projected 29% increase in demand for primary care physicians between 2005 and 2025, brought on in part by an aging and growing population, while the workforce itself is expected to increase by only 2-7% during that time (Colwill, Cultice & Krause, 2008). Not yet factored into these statistics is the projected increase in the number of Oregonians with access to health insurance as a result of recent state and federal legislation.

While several theories have been posited for the decline in the primary care career pathway, ranging from poor domestic policy to physicians' personal concerns, research indicates the most prominent factors influencing primary care practice choice are lifestyle concerns such as uncertain and challenging schedules, low income, lack of

career stability and concerns regarding future success (Bodenheimer, 2006; Barshes, Vayra, Miller, Brunicaardi, Goss& Sweeney, 2004; Newton, Grayson & Whitley, 1998).

Physician shortages have especially profound effects in rural areas. One metric for these shortages is the federally-designated Health Professional Shortage Area. Oregon has 102 Health Professional Shortage Areas (HPSA) (U.S. Department of Health and Human Services, 2011).

On average, rural residents tend to be older, less affluent and tend to have greater health issues than those in urban areas (Agency for Healthcare Research and Quality, 2004). According to 2000 U.S. Census data, approximately 20% of the U.S. population lives in rural areas, while only 9% of physicians practice there (U.S. Census Bureau, Ricketts, 1999). In Oregon as of 2010, 38% of the state's population resides in rural areas and 19.9% of the state's physicians have a rural practice (E. Ong, personal communication, February 7, 2011).

To better understand the challenges confronting Oregon's rural physician workforce, it must first be described. While HPSAs provide a general awareness of the need for primary care physicians in rural areas, revealing those regions in which physician supply is short of adequate, the nature of the shortages and the characteristics of the current rural workforce facing them is largely unknown.

Data Sources and Methods

Physician workforce data was obtained from the Oregon Medical Board's (OMB) February 1, 2010, licensing database. The OMB administers the state's Medical Practice Act, guiding the practice of medicine and its regulations within the state, and issues licenses to allopathic (MD) and osteopathic (DO) physicians. The OMB added workforce-related questions to the physician online licensing renewal application for the October 1 to December 31, 2009 license renewal cycle. Responses to the workforce-related questions were considered voluntary.

The data presented this report represent those active licensed physicians who identified a practice address in Oregon (city, state, zip code). Physicians who listed their employment status as "unemployed but searching for work" and "retired" but identified hours spent in direct patient care are included in the count of active licensed physicians working in Oregon. Physicians reporting an out-of-state practice address, no practice address or no employment status were excluded from this study.

The county work location of those physicians identified as working in Oregon was determined using licensees' self-reported work city or zip code. In instances where cities crossed county boundaries, zip codes were used to determine county of practice.

Rural/non-rural status was determined by self-reported practice zip codes using the Oregon Office of Rural Health's definition of rural; those geographic areas ten or more miles from a population center of 40,000 or more.

This collection method and its data present some limitations. Most notably, these data represent only a snapshot in time. Practice or employment status of physicians may change throughout the licensing renewal cycle and new physicians who were issued licenses after these data were obtained are not included here. Missing data and the problems associated with voluntary reporting pose potential threats to internal validity. Because these data were collected in late 2009, changes occurring since then are not reflected in this report.

Primary care physicians are identified as those who self-reported practice specialties in family medicine/practice, general practice, geriatrics, pediatrics, adolescent medicine, general internal medicine, or internal medicine with a subspecialty in geriatric medicine.

Findings

The OMB licensing database listed 14,646 physicians with an active license. Of those, 10,822 reported a practice location in Oregon. Of the physicians practicing in Oregon, 2,151 (or 19.9%) identified a rural practice location and 8,654 (80.0%) identified an urban (non-rural) practice location. Practice location data (city, zip code) were missing for 17 (0.1%) physicians.

Despite some similarities, Oregon's rural physician workforce represents a considerably different group than those found in the state's more populous centers (see also Appendix A).

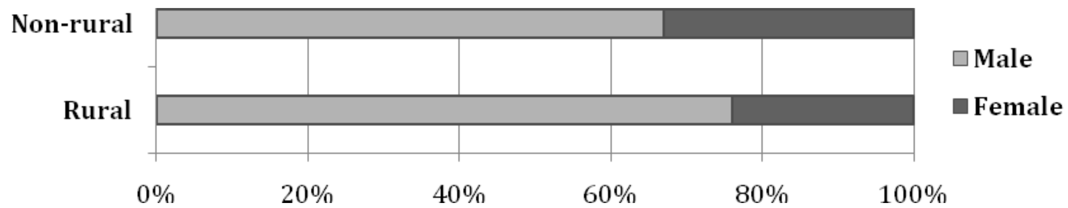
License Type

Of the 2,151 physicians who identified a rural Oregon practice address, 1,939 hold an allopathic (MD) license and 212 hold an osteopathic (DO) license.

Gender

Males make up the majority of Oregon's rural physician workforce (Figure 1). Of the 2,151 physicians practicing in rural Oregon, 1,633 (75.9%) are male and 518 (24.1%) are female. This gender distribution was skewed further towards males than the non-rural physician workforce.

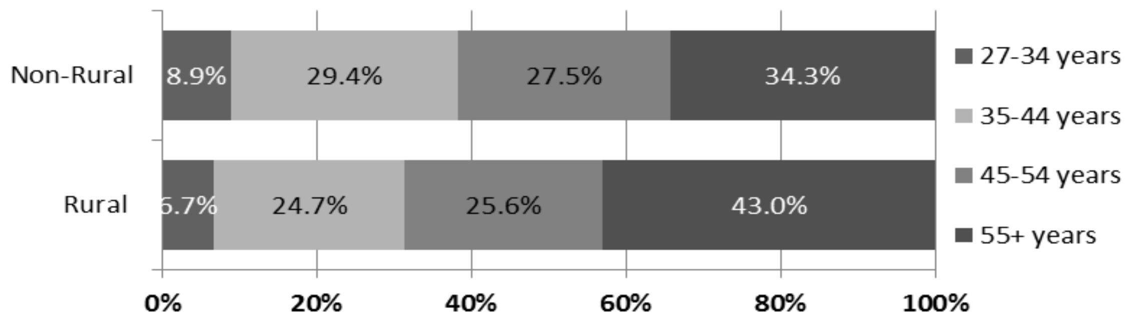
Figure 1: Gender distribution of Oregon's rural and non-rural physician workforce.



Age Distribution

Nearly 28% of Oregon's rural physicians (or 596) were between 55 and 64 years of age. Additionally, 15.2% of rural physicians are over the age of 65. Combined, these 924 individuals who were 55 years of age and older made up 43% of Oregon's rural physician workforce. This population was considerably older than the non-rural physician population (Figure 2).

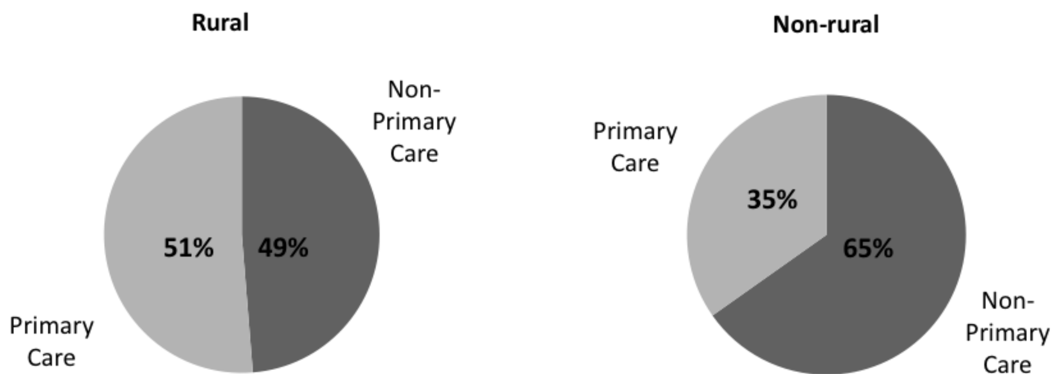
Figure 2: Age distribution of rural and non-rural physician workforce by age category.



Primary Care Specialties

More physicians are engaged in primary care in rural Oregon than in non-rural areas (Figure 3). Primary care physicians were identified as those who self-reported practice specialties in family medicine/practice, general practice, geriatrics, pediatrics, adolescent medicine, general internal medicine, or internal medicine with a subspecialty in geriatric medicine.

Figure 3. Primary care specialties of rural and non-rural physicians.



The 1,100 physicians practicing in primary care in rural Oregon make up 51.1% of the rural physician workforce. Other, non-primary care specialties were practiced by 1,045 physicians (48.6%). Six physicians did not respond to this question.

Although primary care physicians make up 51% of the rural physician workforce, the population-to-primary care physician ratio for rural areas was 1,332:1. Statewide, the population-to-primary care physician ratio was 930:1.

Employment Status

The employment statuses of rural physicians represent a pattern similar to that of their non-rural peers: 1,479 (68.8%) work full time, 394 (18.3%) work part time, 85 (4.0%) were retired, 16 (0.7%) were unemployed, 44 (2.0%) responded “other,” and 115 (5.3%) did not respond.

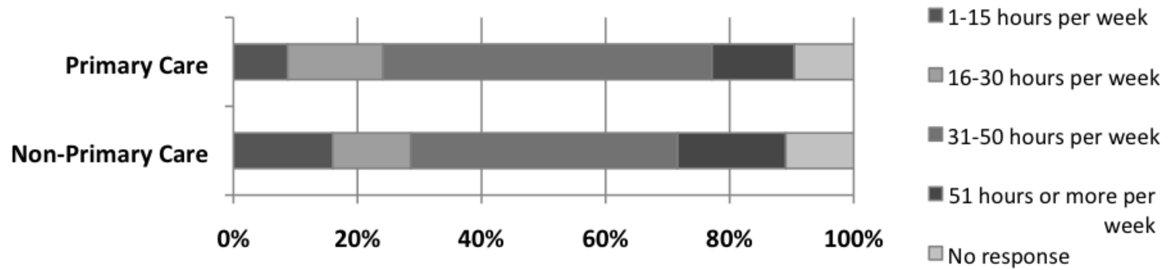
Direct Care Hours

The number of direct patient care hours per week worked by rural physicians follows a similar pattern to that of non-rural physicians. Excluding new licensees, 326 (15.3%) work 51 hours or more per week, 1,028 (48.2%) work 31-50 hours per week, 300 (14.1%) work 16-30 hours per week, 261 (12.2%) work 1-15 hours per week, and 218 (10.2%) did not respond.

Rural primary care physicians appear to work more traditional hours than rural non-primary care physicians. Approximately 68% of rural primary care physicians work between 16 and 50 hours per week, while approximately 55% of non-primary care

physicians work between 16 and 50 hours per week, instead reporting more frequently at either of the two extremes (Figure 4).

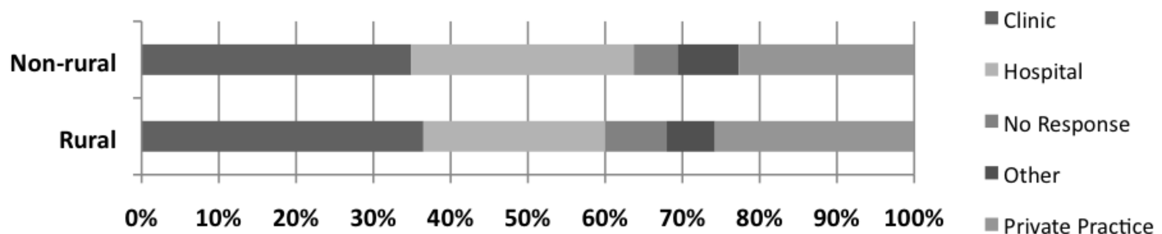
Figure 4: Direct care hours worked by rural primary care and non-primary care physicians.



Practice Setting

Clinics represent the most frequently reported practice setting for rural physicians, with 778 individuals (36.2%) practicing in those settings. Nearly 25.6% of rural physicians (or 550) work in private practices, 502 (23.3%) work in hospitals, 133 (6.2%) reported "other," and 170 (7.9%) did not respond. This represents a slightly different distribution compared with non-rural physicians (Figure 5).

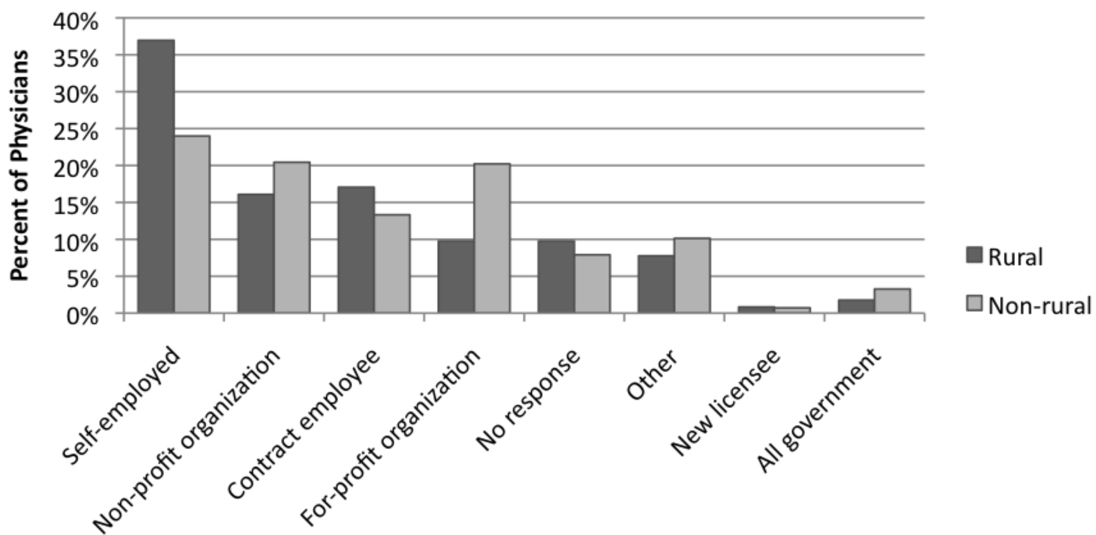
Figure 5: Practice setting for rural and non-rural physicians.



Form of Employment

On average, physicians in rural Oregon were employed differently from their non-rural peers (Figure 6). For 795 physicians (37.0%), self-employment was the most common form of employment, followed by 367 (17.1%) contract employees and 346 (16.1%) non-profit employees.

Figure 6: Form of employment of rural and non-rural physicians.

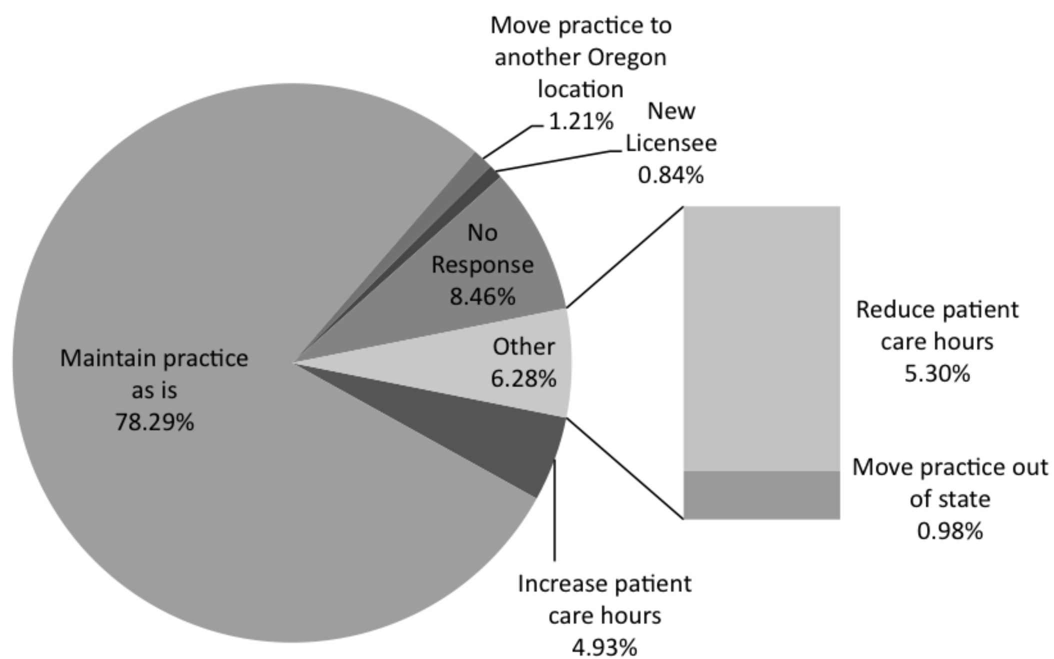


Future Practice Plans

Both rural and non-rural physicians have similar practice plans. When asked about their future practice plans for the following two years on their Fall 2009 licensing renewal application, approximately 78.3% of rural physicians (or 1,684) plan to maintain their practice as is, 4.9% (106) plan to increase patient care hours, 5.3% (114) plan to decrease patient care hours, 1.2% (26) plan to move their practice to another location in Oregon, 1.0% (21) plan to move their practice out of state, and 8.5% (182) did not respond (Figure 7).

Only 4.0% of rural primary care providers plan to increase their patient care hours, compared to 5.4% of rural non-primary care providers. However, 4.0% of primary care physicians plan to reduce their patient care hours, compared to 6.7% of rural non-primary care physicians.

Figure 8. Practice plans of rural physicians.



Practice Specialties

While primary care physicians make up 51.1% of the rural physician workforce, the most frequent non-primary care practice specialties in rural Oregon are represented by 211 physicians (9.8%) in emergency medicine, 116 physicians (5.4%) in general surgery, 106 physicians (4.9%) in OB and/or GYN and 106 physicians (4.9%) in a surgical

specialty. This is a vastly different distribution than physicians in non-rural areas. Approximately 15.2% of rural physicians (or 327) reported other specialties.

For non-rural physicians, the most frequent practice specialties aside from primary care were represented by 628 physicians (7.3%) in a surgical specialty, 601 physicians (6.9%) in an internal medicine subspecialty, 554 physicians (6.4%) in anesthesiology, and 521 physicians (6.0%) in psychiatry. Approximately 25% of physicians (or 2,165) reported other specialties.

Rural Concerns

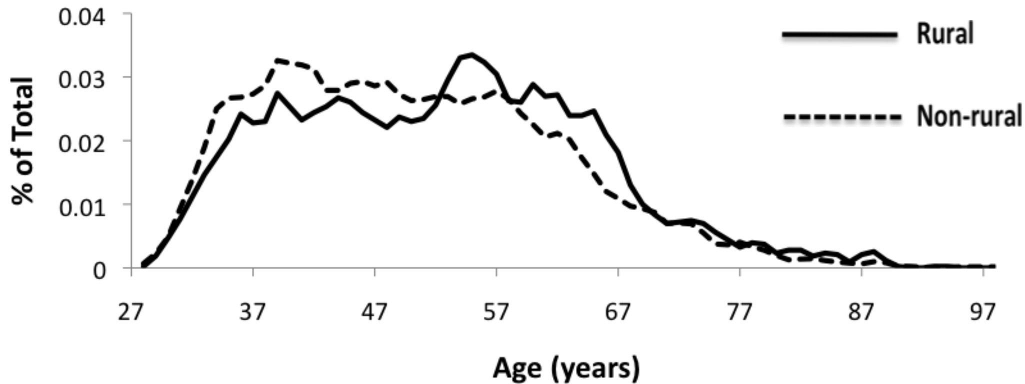
The characteristics that set Oregon's rural physician workforce apart from their non-rural peers (age, form of employment, gender, and specialty) were also those that indicate a changing workforce. Specifically, the rural workforce is both aging and contains significant generational differences that may pose a challenge to access to health care for rural Oregonians in the future. The nature of the physician shortage facing rural Oregon necessitates the need for prompt, efficacious recruitment and retention of physicians to Oregon's smaller communities.

Oregon's Aging Physician Population

With 924 physicians (or 43%) over the age of 55 and a mean age of 52.0 years, Oregon's rural physicians represent an older workforce. Additionally, the rural physician workforce exhibits a top-heavy age distribution when compared with the non-rural physician workforce (Figure 8). This sizable group is approaching a transition point

where retirement and reduced care hours represent a serious threat to access to medical care in rural Oregon.

Figure 8: Age distribution of Oregon's rural and non-rural physicians.



Retirements of rural physicians were only part of the potential reductions to accessing medical care. A substantial 9.4% (or 87) of rural physicians age 55 and older plan to reduce patient care hours in the very near future, of which 35 were engaged in primary care. Additionally, direct care hours reduce greatly with age in this rural physician workforce; 290 physicians between the ages of 55 and 64 years old (48.7%) report working 31-50 hours per week, while only 51 physicians age 65 years and older (15.6%) report working 31-50 hours per week.

Employment status also changes with age in this rural physician workforce. Among older rural physicians, 415 physicians between 55 and 64 years of age (69.6%) report full time employment compared to 84 physicians age 65 years and older (25.6%) working full time. If physicians in this most populous segment of the rural workforce (ages 55-64) follow the trends of their older predecessors (ages 65+) as they age, a

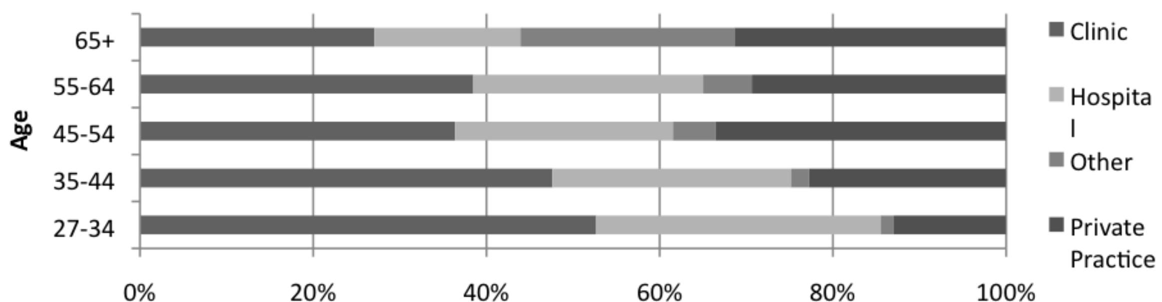
significant loss of the rural physician workforce will occur over a relatively short period of time.

Generational Differences

The 398 rural physicians over the age of 65 who were closest to retirement represent a substantially different group than their younger rural peers. On average, these physicians practice less frequently in primary care, were largely self-employed, work less hours per week on average and were more likely to work in private practice settings than those in younger age brackets.

Younger physicians in Oregon were more commonly employed by hospitals and clinics (Figure 9). This trend is not uncommon nationally due in part to shifting payment structures and physician lifestyle choices (Cook, 2011; Crane, 2011). Additionally, the future viability of private practice settings may be threatened due to physicians' uncertainty about the future and concerns surrounding recent health care law (Elliot, 2010; Rovner, 2010). Out of the three most frequently reported practice settings in rural Oregon (clinics, hospitals, and private practices), those in private practice report the highest intention to reduce care hours, at 7.1%, a trend that increases with age.

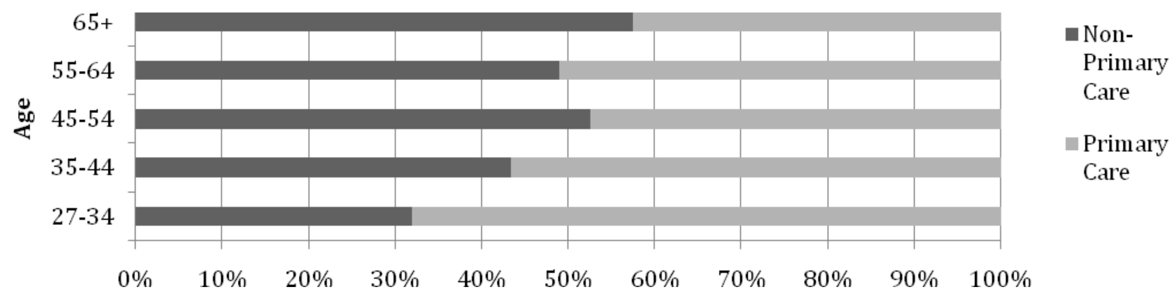
Figure 9: Practice setting of rural physicians by age group.



The potential result of a sizeable older physician workforce and a differently structured younger physician workforce may be too few physicians to fill the shoes of those retiring in the near future. With payment structures and substantial medical student debt favoring employment in hospitals and clinics, and most hospitals and clinics located in populous centers, a greater proportion of the state's rural population may go unserved or underserved.

Despite the threat to access that retirement and reduced care hours represent, one possibly good note lies in the high proportion of primary care physicians among more recent medical school graduates practicing in rural Oregon. Nearly 67% of rural physicians between the age of 27 and 34 years old were engaged in primary care; significantly more than those in older age brackets (Figure 10).

Figure 10: Primary care specialty of rural physicians by age group.



Conclusion

The changing nature of the physician workforce will be illuminated as older physicians begin to retire. The increased demand for health care services from a growing and aging population combined with anticipated demand resulting from increased access to

health insurance, the top-heavy age distribution of Oregon's rural physician population indicates an urgent need for effective physician recruitment and retention strategies the state's less populous regions.

The current data show that younger rural physicians today are much different from their older peers, which may indicate a significant shift in how and where rural Oregon's physician workforce will practice in the future.

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Appendices

Appendix A: Rural / Non-Rural Physician Workforce Comparison

	Rural	Non-Rural
License Type		
MD	90.1%	95.0%
DO	9.9%	5.0%
Gender		
Male	75.9%	67.0%
Female	24.1%	33.0%
Age Category		
27-34	6.7%	8.9%
35-44	24.7%	29.4%
45-54	25.6%	27.5%
55-64	27.7%	22.9%
65 +	15.2%	11.4%
Primary Care		
Primary Care	51.1%	34.7%
Non-Primary Care	48.6%	65.1%
No Response	0.3%	0.2%
Employment Status		
Full-Time	68.8%	71.0%
Part-Time	18.3%	19.5%
No Response	5.3%	3.5%
Other	2.0%	1.4%
Retired	4.0%	3.4%
New Licensee	0.8%	0.7%
Unemployed	0.7%	0.5%
Direct Care Hours/Week		
1-15	12.1%	12.2%
16-30	13.9%	17.7%
31-50	47.8%	45.8%
51+	15.2%	15.6%
New Licensee	0.8%	0.7%
No Response	10.1%	7.9%

	Rural	Non-Rural
Practice Setting		
Clinic	36.2%	34.7%
Hospital	23.3%	28.6%
New Licensee	0.8%	0.7%
No Response	7.9%	5.6%
Other	6.2%	7.9%
Private Practice	25.6%	22.5%
Form of Employment		
City	0.1%	0.0%
Contract	17.1%	13.3%
County	0.8%	0.9%
For-Profit	9.8%	20.2%
New Licensee	0.8%	0.7%
No Response	9.8%	7.9%
Non-Profit	16.1%	20.4%
Other	7.8%	10.1%
Self-Employed	37.0%	24.0%
State Government	0.8%	2.3%
Practice Plans		
Increase patient hours	4.9%	4.4%
Maintain practice as is	78.3%	82.2%
Move practice out of state	1.0%	0.7%
Move practice w/in OR	1.2%	0.8%
New Licensee	0.8%	0.7%
No Response	8.5%	7.0%
Reduce patient hours	5.3%	4.1%
Specialty Group		
Anesthesiology	2.7%	6.4%
Emergency Medicine	9.8%	5.1%
General Surgery	5.4%	2.9%
IM Specialty	2.2%	6.9%
No Response	0.3%	0.2%
OB and/or GYN	4.9%	5.3%
Other Specialty	15.2%	25.0%
Primary Care	51.1%	34.7%
Psychiatry	3.4%	6.0%
Surgical Specialty	4.9%	7.3%

Appendix B: Resources

Oregon Area Health Education Centers .... http://www.ohsu.edu/xd/outreach/ahec/

Oregon Association of Hospitals and Health Systems .... http://www.oahhs.org

Oregon Health Authority .... http://www.oregon.gov/OHA/index.shtml

Oregon Health Authority, Primary Care Office .. http://www.oregon.gov/OHA/OHPR/PCO/index.shtml

Oregon Health & Science University .... http://www.ohsu.edu

Oregon Health Policy Board, Oregon Health Care Workforce Committee……………………………….

.... http://www.oregon.gov/OHA/OHPR/HPB/Workforce/HealhCareWorkforceCommittee.shtml

Oregon Healthcare Workforce Institute .... http://www.oregonhwi.org

Oregon Medical Association .... http://www.theoma.org

Oregon Medical Board .... http://www.oregon.gov/OMB/index.shtml

Oregon Office of Rural Health.............................. http://www.ohsu.edu/xd/outreach/oregon-rural-health

Oregon Primary Care Association .... http://orpca.org

Oregon Rural Health Association .... http://www.orha.org

Osteopathic Physicians and Surgeons of Oregon... http://www.opso.org

Western University of Health Sciences, College of Osteopathic Medicine of the Pacific Northwest……

.... http://www.westernu.edu/northwest-about

For further reading on Oregon's 2010 physician and health care workforce by county and by specialty, see *Oregon Health Professions: Occupational and County Profiles*, available at
http://oregonhwi.org/resources/documents/Final.2010.Oregon.Health.Profession.Profiles.pdf.

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