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**The Impact of the Changing Scope of
Practice of Physician Assistants,
Nurse Practitioners, and Certified
Nurse-Midwives on the Supply of
Practitioners and Access to Care:
Oregon Case Study**

by

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WORKFORCE STUDIES**

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Abstract

Background: The legal scope of practice of nurse practitioners (NP), certified nurse-midwives (CNM) and physician assistants (PA) has evolved significantly across the US over the past ten years. As part of a nationwide project, this case study investigates the nature and effects on provider supply and access to care of changes in NP, CNM, and PA scope of practice in Oregon between 1992 and 2000. Using data from interviews and secondary sources, this study traces the emergence and establishment of the NP, CNM, and PA professions in Oregon, the history and content of laws governing their practice, and the relationship of NP, CNM, and PA scope of practice to provider supply and delivery of care to underserved populations.

Methods: Informants were selected via a modified snowball sampling technique from among state officials, educators, providers, and other groups of stakeholders familiar with NP, CNM, and PA issues both in Oregon and nationally. Face-to-face and phone interviews were recorded and subsequently transcribed for analysis. Secondary data from a variety of sources supplemented fieldwork results.

Results: The NP, CNM, and PA professions were initiated in Oregon in the 1970's and 80's and are now well established. Their numbers have been growing steadily: In addition to graduates of in-state NP, CNM, and PA training programs, large numbers of providers come to Oregon from other parts of the country. However, maldistribution is still an issue, and adequate provider supply in remote rural areas remains a concern.

Across professions, measures such as targeted financial incentives and rural training sites have helped to attract providers to rural practice, but some barriers persist. CNMs in particular blame local obstacles, including inter-professional conflict and competition, for their limited presence in rural Oregon. Managed care is perceived to have effected only a moderate increase in the utilization of NPs, CNMs, and PAs.

Whether trained locally or elsewhere in the country, NPs, CNMs, and PAs alike consider Oregon, compared to other states, to have a legal environment friendly to their practice. Some of the hallmarks of NP and CNM legal scope of practice in Oregon are independence from physician supervision and broad prescriptive authority; PAs are bound by physician oversight, but it can be exercised from an off-site location. PAs can also prescribe drugs, but under

greater restrictions than exist for NPs and CNMs. Overall, providers in all three professions claim to be satisfied with their current prerogatives, some of which were obtained in the last ten years. At the same time, further expansions are being sought through the state's legislature.

Beyond the content of the law, the institutional settings in which NPs, CNMs, and PAs work can legitimately restrict providers' activities. By the same token, clinical practice needs and demonstrated competence have led to incorporating new functions into providers' legal scope.

Conclusions: Debate surrounds the assessment of current trends in NP, CNM, and especially PA supply in Oregon: some respondents foresee a problem with oversupply, while others maintain that much market capacity for mid-level providers remains untapped. There are also mixed views on what factors are most likely to impact the growth of the NP, CNM, and PA professions. The increased availability of in-state training may play a role; more open scope of practice laws may draw providers from other states, but may do little to favor growth in the Oregon-educated health workforce.

The majority of respondents expressed the belief that select aspects of NP, CNM, and PA scope of practice have contributed to improve access to primary care for Oregon's rural populations. Some indicated that the needs of remote communities have pushed toward progressively broader practice prerogatives for NPs, CNMs, and PAs. One example is NPs' independent practice, reportedly introduced, in part, to help alleviate shortages of rural primary care providers. In general, however, the relationship between each profession's supply and changes in its scope of practice is complex, and potentially mediated by factors both internal and external to Oregon. These include the institution of in-state training programs (augmenting the numbers and visibility of the professional group), and the openness of other states' scope of practice laws (they influence provider migration and may provide evidence in support of scope of practice expansions).

Most respondents agreed that the tone of relations among NPs, CNMs, and PAs, and between these groups and physicians, play a crucial role in the success of profession-driven efforts toward expanding scope of practice. Moreover, interprofessional collaboration is recognized as having the potential to impact greatly the quality of, and access to, care for Oregon's underserved people. However, there is a lack of consensus on the current state of interprofessional relationships among these providers. As with other areas in this study, these discordant views reflect, to some extent, the politics and

perspectives playing out in a hotly contested professional terrain. The small sample size (a limitation of the study) may amplify the effect of any bias in the responses, and suggests opportunities for further inquiry.

Introduction

This study is part of a larger, multi-state research project exploring changes in the scope of practice and supply of three types of health professionals—physician assistants (PAs), nurse practitioners (NPs) and certified nurse-midwives (CNMs)—over the last decade. The goals of this research are (1) to understand and describe changes in the legal practice scope of the three professions across the country between 1992 and 2000 and (2) to assess whether such changes are linked to shifts in the supply of PAs, NPs, and CNMs, particularly in rural and underserved areas.

Oregon was chosen for a regional case study from the Pacific Northwest because of some remarkable features in its health care environment, namely the liberalness of its laws regarding PAs, NPs, and CNMs; a long-standing concern for the health of the poor and other vulnerable populations; and the state's unique approach to managing health care access and cost by the adoption of the Oregon Health Plan. While these characteristics are not necessarily representative of the entire northwestern region of the country, they are likely to stimulate valuable insights when juxtaposed to findings from other regional case studies from the larger project.

Data were gathered from secondary sources and interviews. Among the specific issues we address are historical trends and correlates of laws regulating PAs, NPs, and CNMs; training and credentialing for each of the three professions, as well as the relationship between content of training and legal scope of practice; supply and distribution of these health professionals; and quantity and quality of data describing Oregon's mid-level health workforce. An overarching question in this research is whether the processes we describe have affected, or may affect in the future, the delivery of health care to rural and underserved populations in the state.

Background: The Oregon Environment

Demographic Trends

This section draws heavily on the report "Oregon's Changing Demographics 2000" (Hough, 2000), a product of the Population Health Center

at Portland State University. We supplement it, as appropriate, with data from other sources, including newly released findings from the 2000 Census.

During the past decade, Oregon's population has increased steadily while remaining mostly stable in its racial/ethnic composition and in its geographic distribution. Oregon's population is 3,421,399 according to the 2000 Census, up 20 percent from the 1990 Census. This percentage change is considerably higher than the 13 percent reported for the nation as a whole, a finding consistent with the annual growth rate of 1.9 percent (almost double the 1% U.S. rate) observed in the state in recent years. And the population is expected to grow another 13 percent—to 3,850,000—by 2010. Net migration explains much of this trend through the late 1990s, but migration is expected to decline during the present decade. Despite the substantial influx of people from outside the state, Oregon remains one of the least racially/ethnically diverse areas of the country. Most Oregonians (87%) are non-Hispanic whites, followed by 8 percent who are of Hispanic or Latino origin (fewer than the 12% for the U.S.); 3 percent Asian (nearly on a par with the nation); 1.6 percent Black or African-American (strikingly lower than the 12.3% national average); 1.5 percent between American Indians, Alaska Natives, and Pacific Islanders; and 4.2 percent of other identification. No major racial/ethnic shifts are anticipated in the next decade, although it is worth noting that the proportion of Hispanics, Asians, and Pacific Islanders in the population has increased much more than that of Blacks, American Indians, and Alaska Natives. The degree of diversity in Oregon will depend on future migrants and on fertility levels within the different racial/ethnic groups.

In keeping with national demographic trends, the Oregon population has been aging and will continue to do so over the next two decades, with a growing proportion of the population in the elderly age groups and proportionally fewer children and young adults. Findings from the 2000 Census show that 13 percent of Oregonians are aged 65 or older; the number of those over 65 rose 55 percent between 1980 and 2000 and is expected to climb by another 91 percent by 2020 (Health Resources and Services Administration, 2001).

A related phenomenon over the past decade was the net increase in the elderly population of several counties. This was the result of members of the older population migrating into the counties and of younger people leaving. This trend creates additional demands for health and social services in the affected areas.

Another enduring aspect of Oregon demography, and one with considerable implications for health care delivery, is the rural character of parts of its territory. Although 75 percent of the population was classified as “urban” in the 1990 Census (comparable data from the latest survey are unavailable at writing time), the urban population is concentrated in a few major centers. Out of Oregon’s 36 counties, 27 are considered “non-metropolitan” and 6 of those are further classified as “totally rural”¹ (Ghelfi and Parker, 1997).

Oregon’s rural areas are also weaker performers in an otherwise fairly healthy state economy. Rural communities have been hurt by serious downturns in the natural resource industries and suffer high rates of unemployment (Oregon Blue Book, 2000). According to state officials, the best hope to revive these localities is through economic diversification, the same trend that has characterized Oregon’s statewide economy for 20 years. Projections point to the continuation of an ongoing shift from a manufacturing and resource-based state economy to one based on services and the high-tech industry (Oregon Blue Book, 2000).

On average, Oregonians have enjoyed economic and employment growth comparable to the nation during the late 1990s, but they have also experienced slightly higher unemployment rates (5.7% in 1999, but subject to a great deal of geographic variation). The average per capita income in non-metropolitan areas is higher than the non-metropolitan average for the U.S., while the per-capita income in metropolitan regions is lower than the national metropolitan average (although the gap has been closing).

A sobering fact is the current poverty level in the state. At 11.6 percent of the total population, the poverty level is slightly lower than the 13.3 percent measured for the nation, but also virtually unchanged from average yearly figures over the past decade (except for a 15% spike recorded in 1998). Along with more positive trends, this one, too, will likely continue for the foreseeable future (A Portrait of Poverty in Oregon, 2000).

¹ The U.S Department of Agriculture defines as “totally rural” a non-metropolitan county that does not contain any part of a town of 2,500 or more residents. The Oregon Office of Rural Health at Oregon Health and Science University uses an alternative scheme, which classifies counties as either “frontier,” “rural,” “mixed urban/rural,” or “urban.” Frontier counties have a population density of six people per square mile or less. Rural counties are geographic areas distant ten or more miles from a population center of at least 30,000. By these categories, eleven counties in Oregon are considered “frontier,” sixteen “rural,” eight “mixed” and one “urban” (Multnomah County, which contains the Portland metro area).

The Health Care System

The following table, reproduced from the Health Resources and Services Administration (HRSA) State Health Workforce Profile for Oregon (HRSA, 2001), displays some illustrative features of the state's health care infrastructure.

Health Care Infrastructure	Oregon	Region X	U.S.	OR Rank
Health care expenditures per capita, 1994	\$2,441	\$2,656	\$3,053	47/50
Hospital beds per 100,000 population, 1998	207.5	205.3	310.8	45/50
Hospital inpatient days per capita, 1998	0.4	0.4	0.7	47/50
Nursing home beds per 1,000 population 65+, 1998	32.5	38.6	52.7	45/50
Medicaid recipients (pct. of population), 1998	15.6%	19.6%	14.7%	13/50
Medicare enrollees (pct. of population), 1998	14.7%	12.9%	14.1%	25/50
Percentage of population uninsured, 1998	14.3%	13.8%	16.3%	23/50
Vaccination coverage for children 19-35 mos. (pct.), 1997	73.0%	76.8%	77.9%	45/50
Percentage of total employment in health services sector, 1998	7.3%	7.7%	9.0%	44/50

Source: Health Resources and Services Administration, Bureau of Health Professions National Center for Health Workforce Information and Analysis. 2000. *HRSA State Health Workforce Profiles: Oregon* (p. 3). U.S. Department of Health and Human Services. Rockville, MD.

The data show that Oregon is close to the national average in terms of proportion of its population receiving Medicaid (15.6%), proportion enrolled in Medicare (14.7%) and percentage of the population that is uninsured (14.3%). However, Oregon clearly has fewer than average hospital and nursing home beds (207.5 per 100,000 population and 32.5 per 1000 population aged 65 or older, respectively). Vaccination coverage for children aged 19-35 months (73.0%) is also somewhat lower than the U.S. average. Some numbers have changed considerably over past years. For instance, health services employment grew 25 percent between 1988 and 1998, corresponding to a 5 percent net per capita growth in health services, compared with a national rate of 23 percent (HRSA, 2001). Another example is the 37 percent decrease, between 1980 and 1997, in the number of community hospital beds in the state (HRSA, 2001).

Oregon has a long history of openness to innovation and change in health care matters. This is reflected in the comparatively liberal set of rules

establishing the scope of practice of PAs, NPs, and CNMs. But the state has also demonstrated a willingness to confront the issue of its poor and medically underserved populations by devising a novel set of public programs collectively known as the Oregon Health Plan, or OHP. Implementation of the OHP began in 1994. Its central goal was a reform of the state Medicaid system to expand coverage of a prioritized list of services to all Oregonians falling below 100 percent of the federal poverty line. The list emphasized preventive and early intervention care, with health services provided by a group of fully capitated health plans. A second OHP provision created an insurance purchasing pool for small employers. A third element was the creation of a high-risk pool for people considered uninsurable because of pre-existing conditions. Lastly, the OHP included an employer participation mandate for all firms with more than two employees operating in the state. By 1996, over 400,000 people were covered under the OHP; of these, over one-fourth were extended coverage for the first time. But despite its significance and successes, the plan has also registered failures and shortcomings, including the repeal of the employer mandate, fast rising health care costs, and the persistence of an uninsured segment of the population, especially among the working poor. According to state sources, 23 percent of Oregonians under 100 percent of the federal poverty line lacked any form of health insurance coverage in 1998 (OHPPR, 2001). Twenty-four percent of those under 150 percent, and 21 percent of those under 200 percent of poverty, are also uninsured. Removal of the OHP, as some critics of the system suggest, would reportedly add 90,000 people to the ranks of those with no health insurance. At the moment, the dominant health care debate in Oregon centers around whether to abandon or reform a system that remains the only one in the country to explicitly invoke health care “rationing” and in which the state is responsible for delivering care to populations in financial need.

Study Methodology

This study focuses on Oregon PAs, NPs, and CNMs, and most interviewees are members of these professions. We also spoke with persons involved with credentialing and training, with representatives of local and national PA, NP, and CNM organizations, and with members of state health agencies. While we used published numerical data for information such as supply and demographic attributes of the health workforce of interest (see the Reference section for a complete list of sources), this project relies primarily on

fieldwork in the form of face-to-face and telephone semi-structured interviews, 30 minutes to an hour long (for our interview schedule, see the Appendix).

To draw our sample, we used a modified version of the “snowball” technique, in which we asked interviewees to refer us to other potential informants. Our starting point for this approach was a series of contacts acquired through the Oregon Health Sciences University (OHSU) Office of Rural Health. We initiated other contacts based on available listings from relevant agencies and organizations.

Technically speaking, this is a non-representative sample, yet we feel that we have succeeded in identifying a broad cross-section of individuals involved with different aspects of the PA, NP, and CNM professions. In all, we identified and spoke with 15 subjects, beginning with two exploratory interviews conducted during a site visit to Portland, Oregon, in early March. Further data collection stretched into the early part of July. After agreeing to being interviewed at a later date, subjects typically received a brief description of the study along with a few sample questions to allow for some reflection ahead of time. The exceptions were those cases in which an initial contact phone call turned into an interview. With the respondents’ permission, we tape-recorded (and subsequently transcribed) nearly all conversations.

In accordance with the goals of the national study, our fieldwork addressed two main research questions:

1. What factors have been responsible for any changes in the legal scope of practice of PAs, NPs, and CNMs in the state of Oregon between 1992 and 2000?
2. Have changes in the three professions’ scope of practice been linked to shifts in the supply of PAs, NPs, and CNMs, and in the access to health care provided to underserved populations during that same period?

We approached the two questions by breaking down the core concerns into specific topics we could discuss with informants. Moreover, we attempted to place more recent developments within a historic framework to enhance our understanding of the three professions in Oregon. Secondary objectives were as follows:

- Briefly tracing the history of supply of NPs, PAs, and CNMs in Oregon. This includes identifying factors and forces affecting supply (e.g. managed care penetration, expanded scope of practice, new training requirements).
- Documenting the extent and quality of data on the supply and other aspects of the PA, NP, and CNM workforce available to policy makers.
- Illustrating the evolution of NP, PA, and CNM legal scope of practice, highlighting factors and forces responsible for major legislative initiatives in this sector. Discrepancies between the legal and institutional prerogatives granted the three professions are also of interest.
- Assessing the extent to which any changes in the scope of practice of mid-level health professionals have affected access to, quality of, and cost of care. Issues regarding access to primary care for rural and underserved populations were emphasized.
- Gathering stakeholders' views on the adequacy of existing scope of practice laws and on whether the state's environment encourages expansion or limitation of NP, PA, and CNM practice.

Overview of PA, NP, and CNM Scope of Practice and Training

Physician Assistants

Oregon's administrative rules define a PA as "...a person qualified by education, training, experience, and personal character to provide medical services under the direction and supervision of an Oregon licensed physician in active practice and in good standing with the Board [of Medical Examiners]. The purpose of the physician assistant program is to enable physicians...to extend quality medical care to more people" (OAR 847-050-0005 [1]). Persons who meet these general requirements can apply for permanent licensure from the Oregon Board of Medical Examiners (BME) if:

1. They are graduates of an approved PA training program.
2. They have passed the examination given by the National Commission for the Certification of Physician Assistants (NCCPA).

Additional requirements are specified for those who apply for prescriptive privileges or to work under remote supervision. Applications are reviewed by the PA Committee, which comprises two PAs and three other members. It is then up to the PA Committee to recommend approval to the Board. The license is permanent, though a registration fee is collected every two years.

A hallmark of the PA role is its dependency on a supervising physician, who must “provide direction and regular review of the medical services provided by the physician assistant as determined to be appropriate by the Board.” The content of this necessary relationship between the two providers is formalized in the “practice description,” a document to be submitted as part of the application process and specifying the PA’s functions and duties, as well as details of the physician’s direction. Licensed PAs who lack a supervising physician cannot practice and their licenses are considered inactive. Until recently, one physician could oversee up to two PAs in areas not designated as underserved and up to four in areas designated as underserved. However, 2001 legislation, effective as of January 2, 2002, and scheduled to sunset in 2006) allows Oregon physicians to supervise up to four PAs, regardless of the population’s underserved status. One PA can operate under the direction of up to four physicians. Though PAs are typically bound to practice in the same locale as their supervising physician, they may be allowed to provide care under “remote supervision,” which requires direct, regular communication with the physician, but not his or her presence at all times.² PA services at remote sites are reviewed by physicians at regular intervals, as deemed appropriate by the Board (typically every two weeks).

A 1999 change in PAs’ legal status authorizes practice with a temporary permit. Another measure enacted that same year changed the “registration” and “certification” of physician assistants to “licensure” by the Board of Medical Examiners. This purely cosmetic step was meant to eliminate any confusion as to the standing of PAs vis-a-vis other licensed providers, particularly in the eyes

² Until recently, only PAs working in rural, medically underserved areas could apply for remote supervision. 2001 legislation (effective as of January 2, 2002, and scheduled to sunset in 2006) extends this prerogative to all Oregon PAs, urban as well as rural, whether or not they serve vulnerable populations.

of insurance carriers (Oregon statutes consider “registration,” “certification,” and “licensure” to apply to the same legal status). Two other 1999 provisions affecting PAs’ legal position allowed the substitution of the supervising physician and established his or her liability.

Oregon PAs enjoy fairly broad prescriptive privileges. They can dispense Schedule III through Schedule V drugs, as determined by the physician and approved by the Board (American Academy of Physician Assistants, 2001); Drug Enforcement Administration (DEA) registration has been required since 1993. Legislation passed in 1999 extended PA scope of practice to include administering and dispensing prepackaged drugs in emergency situations.

As with other non-physician clinicians, the issue of third-party reimbursement greatly affects PAs’ ability to practice and thus the growth and standing of their profession. Under Medicaid, PAs are reimbursed 100 percent of a physician’s fee for the same service. However, that reimbursement rate is only 85 percent for Medicare patients. Private insurers are required to pay the same for PAs as for physicians for covered services.

PA training is a fairly recent phenomenon in Oregon. The first program, at OHSU, was established in 1995 by funded legislative mandate and produced its first cohort of graduates in 1997. Pacific University (a private institution) followed suit—two classes have graduated so far from its 27-month program. Both PA programs are located in Portland, and they both grant Master’s-level degrees. However, a Master’s degree is not an Oregon condition of PA licensure.

There were 252 PAs practicing in Oregon in 1999, or 7.6 PAs per 100,000 population, a figure lower than the national average of 10.4 (HRSA, 2001). Data from the Area Resource File (ARF) (BHPPr, 1999) show that PAs have become more widely distributed throughout the state over the past ten years: in 1999, only 8 out of Oregon’s 36 counties did not have a PA presence, down from 22 in 1990. Projections for 1996-2006 show a 33.3 percent growth in PA employment, which is substantial, but lower than the 46.7 percent increase predicted nationally (HRSA, 2001).

Data on other aspects of this component of the health workforce indicate that the majority of Oregon PAs are employed in ambulatory settings (69%), with 11 percent working in hospitals (substantially lower than 28% in the U.S. as a whole). The racial/ethnic composition of these providers closely resembles that of the population. As for PAs’ gender, 53 percent are male, compared with

49.6 percent of the Oregon population and 47.2 percent of PAs in the U.S. (HRSA, 2001).

Nurse Practitioners

Legally recognized in Oregon since 1975, NPs fall under the authority of the state's Nurse Practice Act and of Board of Nursing regulations. Administrative rules state that a nurse practitioner is "a registered nurse who provides primary health care in an expanded specialty role" (OAR 851-050-000 [3][o]). Specifically, NP scope of practice includes providing holistic health care to individuals, families and groups across the life span (starting January 2, 2002, NP prerogatives will extend to signing patients' death certificates). The NP is independently responsible and accountable for care given within the parameters of his or her specialty. NPs are charged with the management of clients' health problems through assessment, diagnosis, development of a plan, intervention, and evaluation. NPs are independent providers who can operate in settings as diverse as hospitals, long term care facilities, and community-based clinics. And, since passage of the 1993 fair practice legislation, Oregon hospitals are permitted to grant admitting privileges to NPs and forbidden to discriminate against them when deciding which providers to accept as hospital medical staff. However, a 1995 amendment allows hospitals to impose a co-admission requirement, meaning that a physician member of the hospital staff must co-sign the NP's order to admit a patient. As of January 2, 2002, NPs are allowed to supervise home care, though limited to patients who do not seek Medicare or Medicaid reimbursement.³

Oregon NPs first acquired prescriptive privileges in 1979. Since the 1980s, NPs have been authorized to distribute sample medications, dispense drugs in college health clinics, prescribe class III-V controlled substances, and apply for DEA numbers. In addition, the 1999 Oregon regular legislative session broadened NPs' prescriptive authority to include Schedule II drugs. NPs can

³ Federal guidelines mandate that physicians supervise the delivery of home care to Medicare and Medicaid recipients. Problems of interpretation may arise, however, as the new law does not specify whether NPs can be barred from home care if employed by a Medicare or Medicaid facility, regardless of the status of individual patients.

independently prescribe all drugs that are not on the list of exclusions compiled and regularly updated by the Board of Nursing.⁴

Insurance plans are required to reimburse NPs for the same services for which physicians are covered and at the same rate. State Medicaid also pays for NPs at 100 percent of the physician fee.

To be licensed in Oregon, NPs must hold a Master's-level degree from an NP program reflecting the same specialty as the license. However, national certification is not required. Two institutions train NPs in the state. The largest program, at OHSU, spreads over one urban (Portland) and three rural campuses, though only family NP training is offered at all four locations. All other specialty areas are available at the Portland campus, including adult, geriatric, psychiatric, pediatric, and women's health NP. The University of Portland also confers family NP degrees. Still, it is estimated that about 50 percent of NPs licensed in Oregon in 2000 were trained out of state (Oregon AHECs, 2000).

With 1,411 NPs (including 131 nurse-midwives) practicing in Oregon in 1998, the number of these providers per 100,000 population—39.0—is well above the 26.3 national average. The number of Oregon NPs has grown steadily since 1990, but between 1995 (the first year for which these data are available) and 1999, the number of NPs reportedly working for an Oregon-based employer saw an 8.4 percent decline. As has long been the case, the sex ratio within the profession is heavily skewed in favor of female NPs (about 87.5% of total). The racial/ethnic composition of NPs in the state mostly reflects that of the general population.

Certified Nurse-Midwives

CNMs have been practicing in Oregon for 25 years. They are regulated as a category of nurse practitioners and are certified by the State Board of Nursing (BON) under the Oregon Nurse Practice Act. A registered nurse license is required, but national certification is not.

According to Board of Nursing scope of practice rules (last amended in 1994), a nurse-midwife “independently provides health care to women, focusing

⁴ This type of formulary by exclusion was introduced in 1996. It replaced a list of all the drugs that NPs were allowed to prescribe that had grown increasingly voluminous and unwieldy since its first, 1979 edition.

on pregnancy, childbirth, the postpartum period, care of the newborn, and the family planning and gynecological needs of women. The scope of practice includes treating the male partners of their female clients for sexually transmitted diseases” (OAR 851-050-0005 [6][c]). Nothing in the legal statute mandates a particular relationship with physicians or other kinds of providers, though the CNM scope of practice also includes “consultation and/or collaboration with other health care providers and community resources” and “referral to other health care providers and community resources” (American College of Nurse-Midwives, State Laws and Regulations, 2000). CNMs enjoy the same prescriptive privileges as NPs and thus can prescribe Schedule II-V drugs (Schedule III-V, along with DEA numbers, since the 1980s; Schedule II authority was acquired during the state’s 1999 regular legislative session). Moreover, a 1993 Oregon statute allows any hospital in the state to grant admitting privileges to licensed CNMs and forbids discriminating against them and NPs in general (although a 1995 amendment allows hospitals to impose co-admission requirements; see section on NPs above) (American College of Nurse-Midwives, State Laws and Regulations, 2000).

Health insurance carriers are mandated to pay NPs for services, and thus by extension CNMs, on the same basis as physicians providing identical services. Medicaid reimburses CNMs at 100 percent of physician fees.

CNMs must hold Master’s-level degrees in nursing or a related clinical specialty; the OHSU Portland campus offers the only degree in nurse-midwifery in the state.

Unfortunately, because few data sources differentiate CNMs from the overall NP population, more detailed information on CNMs is unavailable. The number of CNMs has roughly doubled since 1990, and in 1999 there were 131 CNMs practicing in Oregon. This is equivalent to 3.9 per 100,000 population, compared with 2.1 on average in the nation. CNMs practice at 65 sites throughout Oregon. In 1998 CNMs delivered 6,030 babies or 13 percent of all births in the state.

The Three Professions: Findings from Interviews

Supply Issues

Views and Concerns on Overall Trends

Interviewees who commented on the supply of PAs, NPs, and CNMs by and large supported the figures and trends discussed in an earlier section. The numbers of professionals in each group have grown during the past ten years, with no sign of this trend abating in the foreseeable future. But the assessment of whether this is desirable or not—whether it will ease present shortages, maintain current levels of care, or cause an oversupply—varies across the three professions and may be a matter of considerable disagreement within each group.

The NPs we interviewed predict neither significant undersupply nor oversupply in their ranks, though the large proportion of NPs who are now middle age or older might contribute to a future shortage when they retire. One exception is the severe shortage in every part of the state of psychiatric and mental health NPs, particularly those specializing in the care of children and adolescents (there are fewer than ten of these providers in Oregon). Some of the reasons for this undersupply vis-à-vis need are reported to be the relative novelty of the NP role in the mental health arena and the mismatch between a weak outpatient infrastructure and a growing demand for services. In general, there is no overabundance of jobs awaiting graduates from the two in-state programs training NPs. One observer outside of the NP profession commented on signs of salaries leveling off or dropping for mid-level professionals in Oregon, suggesting that these groups—including NPs and PAs—should take steps toward jointly managing future numbers of their practitioners.

Much more diverse are views on the state of the PA supply. As one respondent reported, opinions on this may even be shifting on a day-to-day basis. A key controversy has to do with whether the current number of PAs satisfies or exceeds demand in the state as a whole and in rural versus urban communities. Some believe that overproduction of PAs by the two in-state training programs has all but saturated the market, even in remote areas. Those presenting this view give the example of an extremely isolated rural practice that went, in a few years, from wanting for providers to receiving over 80 PA applications for the same job. Similar experiences have been reported, though perhaps not as dramatic. Admittedly, such a striking drop in opportunities may reflect in part

an initially overinflated demand: one participant told us that rural communities have found it difficult to project accurately both their need for providers and their financial ability to support them. Even so, some say that the available capacity has mostly been filled and new PAs looking for work face disappointing employment and salary prospects.

The opposing view is that the direst examples of a saturated market are anomalies in a system that, at least in rural areas, is more typically plagued by a PA shortage. In fact, an interviewee told us, the PA program at OHSU has recently embarked in marketing efforts aimed at attracting new PAs to rural practice. According to some interviewees, new opportunities are also opening up in urban centers where many health care settings are only now learning what PAs can do and contribute. Another, somewhat more nuanced opinion holds that while PA openings may have decreased, most PAs do find jobs, provided that they are willing to accept less than ideal salaries or practice locations.

A related debate concerns the professional direction PAs are taking, in Oregon as well as nationally. Historically, the major impetus for the growth of the PA profession was the need to provide primary health care to underserved populations. But interviewees related that while primary care remains at the core of PA training and practice, a trend towards specialization is clearly visible. In Oregon, this is variously attributed to a natural evolution that parallels that of the medical profession; to the activity of training programs that “create capacity” by marketing PA services to specialist physicians; or to PAs’ desire to reside in urban areas, where more jobs may be in specialized rather than primary care settings. A long-time PA expressed a concern that moving away from the profession’s traditional focus on primary care could create a vacuum that might be filled by some other emergent professional group.

CNMs in Oregon perceive their main supply problem to be their poor integration into the health care system of many rural areas. As we heard from people both within and outside the profession, CNMs are mostly concentrated in the large population centers. In some cases, opportunities for employment are so scarce that rural CNMs cease their obstetrics practice and fall back on their women’s health preparation to be able to support themselves. Those who wish to continue as CNMs frequently move to urban areas, where jobs are easier to find. These obstacles appear surprising, given that we heard about a generally friendly legal and cultural climate for CNMs in Oregon, coupled with their tradition of caring for the underserved. Interviewees indicated that there were several factors responsible for the underutilization of CNMs in Oregon. They

include lack of support or actual opposition from physicians in small rural towns, a statewide oversupply of obstetricians (who provide care for low- as well as high-risk births), sparsely populated areas where few births occur, ideological barriers to, or simply ignorance of the midwifery model, and confusion between the roles of certified nurse and lay midwives. Despite these obstacles, the projected increase in population and births is expected to favor a slow but steady growth of the CNM profession in Oregon.

The Effect of Managed Care on Supply

Despite some expectations to the contrary, managed care is thought to have had little influence on the overall demand for PAs, NPs, or CNMs. Use of mid-level professionals by managed care organizations would appear to be a very desirable, “cost-effective” strategy compared with using only physicians. However, the actual utilization rates do not support this assumption. One exception may be Kaiser Permanente, the largest HMO in Oregon, which has utilized PAs extensively since the beginnings of the PA profession in the state.

While interviewees agreed that in general managed care’s influence had been relatively small, one respondent also cautioned that “managed care” is a generic term that captures both different systems and insured populations with different socioeconomic profiles. For instance, HMOs serving low-income patients through the Oregon Health Plan are likely to have dramatically increased access to NPs, because the poor were typically directed to NP-run clinics even before the plan’s implementation. By comparison, use of PAs, NPs, and CNMs may not have grown within HMOs providing employer-sponsored insurance or Medicare coverage. But beyond anecdotal information, data that can illuminate the relationship of managed care penetration with PA, NP, and CNM supply are sorely lacking.

Those who believe that the effect of managed care on supply has indeed been limited put forth various hypotheses. According to some it is possible that the supply of physicians had been underestimated. Another view is that managed care’s limited demand for mid-levels is a symptom of structural irrationality and malfunctions. Indeed, heavy managed care penetration had the effect of undermining the market for the entire obstetric sector—nurse-midwives included—by instituting primary care physicians as the system’s gatekeepers, with disincentives to refer patients to specialists in obstetric care. One CNM educator suggested that a demise of managed care could prove a

stimulus for CNM supply, provided the health system replacing managed care were truly interested in the provision of cost-effective care.

The Relationship of Supply and Scope of Practice

Oregon's national reputation as a state friendly to PA, NP, and CNM practice historically has drawn practitioners of all three types from other parts of the country. This was especially true of PAs during the years preceding the creation of the first in-state PA training program. Indeed, this heavy migration was one of the factors leading the Oregon legislature to authorize the development of the PA training program at OHSU. Reportedly, many NPs are also coming to Oregon because of its favorable practice environment. The Oregon Area Health Education Centers (Oregon AHECs) report that 52 percent of the Oregon NPs they surveyed were trained outside of the state (Oregon AHECs, 2000) and, according to one interviewee, most are from California, Washington, and states on the east coast of the U.S., all areas of the country where the NP legal scope is narrower than in Oregon. With the possible exception of providers from out of state, it is unclear whether specific changes in the scope of practice have links with other supply trends. Some interviewees noted that NPs' status as independent providers may influence the type, if not the number, of individuals entering the field. This is because aspiring NPs must be comfortable with the prospect and the responsibilities of independent decision making. However, one NP educator believes that perceptions of what the profession is about are more important to future NPs than the content of their legal scope of practice.

Training as Supply Regulator

Leaders across, as well as within the professions, expressed quite different views on the relationship between supply and training. According to one administrator in the educational field, the market for PAs in Oregon has improved markedly thanks to the presence of two PA training programs. The increased availability of training expands PAs' visibility and job opportunities.

But others believe that neither NP nor PA programs have paid sufficient heed to signs of a tight job market for both types of providers. These observers indicated that PA programs might be especially at fault. Factors both internal and external to programs have been identified as reasons for the perceived general unresponsiveness of the training program. Interviewees pointed out that Oregon might be reflecting a national trend toward the proliferation of both

NP and PA programs that may be in part a long-term effect of past government policies. For instance, we learned from one source that increasing NP enrollment was for many years a funding priority for federal training grants. Programs had to demonstrate a “significant” increase in the number of students in order to receive federal monies. Market forces are also said to be responsible for the growing number of NP and PA programs. In any case, once the educational structure is in place, self-interested resistance to change may come into play. Whether the program or its administrators are politically popular can be a factor as well.

There are concerns over a possible drop in graduate placement rates, if not student enrollment. One NP interviewee considered that, on a national level, the growth of programs might dilute the quality of training. For PAs in Oregon and across the country, placing new PAs increasingly requires searching out jobs not in primary care, but within medically specialized settings. As discussed elsewhere in this report, whether or not this trend should be opposed is a matter of debate within the state and national PA leadership. In Oregon, the issue is viewed as particularly problematic for the PA program at OHSU, which was created with an expressed primary care mission. We heard that, after departing from them for a time, the program has recently committed itself again to its original primary care goals. Conversely, the PA program at Pacific University (a private institution) is free from directives emphasizing primary care and rural practice, and thus concentrates on helping students find jobs wherever and in whichever capacity the students prefer. Its representatives do not lament a PA oversupply, and boast a 100 percent placement rate for the program’s first two graduated cohorts.

It was reported that Oregon NP programs by and large have experienced few problems attracting new members to the profession or, more specifically, to rural practice. There is even the case of a rural county described as having an “overflow” of NPs because of the presence in the area of one of the three campuses that the OHSU School of Nursing maintains outside of Portland. In fact, an educator in the OHSU program credits the decision to bring NP training to rural communities, rather than marketing rural practice to urban-schooled providers, as one of the reasons for NPs becoming a well-known presence in rural Oregon. But even these providers encountered initially strong obstacles to establishing clinics in rural parts of the state. Participants in these early efforts mentioned cultural barriers (lack of familiarity with the NP role and model of care), political factors (mainly physicians’ opposition) and practical (business-related) reasons. This leads one administrator to advocate a new approach to

educating NPs that would include items such as the basic business and legal knowledge needed to set up an independent practice, and the development of skills to understand and work with the local political and institutional climate.

For CNMs, factors other than training tend to have the largest effect on the supply of providers and their integration into the system, especially in rural areas. One instructor at the OHSU CNM program told us that OHSU training does not have a particular rural focus, nor does it train directly in rural areas, though its graduates are encouraged to consider rural practice. Accreditation requirements make setting up training in rural places more difficult, but attempts to do so may be revamped in a few years as the market improves for CNMs. There are other upcoming changes. For example, beginning in 2002, students without a prior nursing degree will be allowed entry into the CNM program. These students will acquire their generalist nurse education and RN licensure while in the program, to then move on to graduate specialty study in nurse-midwifery. This new development is expected to affect at least the composition—if not the numbers—of new members of the profession in the state.

Scope of Practice Changes: Factors and Processes

Actors and Arguments in the Political and Regulatory Arena

Expansions of the legal scope of practice of PAs and NPs and CNMs typically originate from within the professions, with particularly active members or professional lobbyists advocating with the Oregon legislature for measures granting broader professional privileges. The main actors in this process normally meet during sessions of the State Senate Committee for Health and Human Services. In addition to representatives from the professions, members of the Oregon Medical Association, the Oregon Nurses Association, and the insurance industry may be present. When PA practice scope is the subject, the Board of Medical Examiners may also be involved. According to one interviewee, arguments used in the course of these debates often include the content of regulatory statutes in other states, cost considerations related to changes in legal scope of practice or prescriptive privileges, and concerns about quality of care. Providers who believe their delivery of care is limited by current norms and could be enhanced by an expanded legal scope may offer their testimony. As one informant told us, the experience of some rural NPs unable to provide effective pain management for their patients under existing rules was

instrumental in Schedule II drugs being added to NP prescriptive authority during the 1999 Oregon legislative session.

Factors and Barriers Affecting Scope

Interviewees spoke both about the forces leading to changes in scope of practice over time, and about the specific dynamics of very recent developments (some during the 2001 regular state legislative session). When asked whether the content of training was related to changes in the professional scope of practice, a representative of the NP community credited the requirement that NPs graduate with a Master's-level degree with playing a key role in the broad scope of practice the profession enjoys. Indeed, she views greater training and expanded scope of practice as "going hand in hand." But one observer long involved with mid-level health professionals in the state believes that outside of academic circles, NPs' level of formal education has little influence on either their professional scope of practice, or the way in which they are viewed by physicians and the community at large. Need is mentioned as a more important driver of scope of practice changes. Under this view, NPs' prescriptive authority and independent practice apparently stemmed from the recognition that, under more liberal conditions, NPs could be a key solution to the problem of underserved rural areas. According to some respondents, this potential role for NPs was acknowledged as part of an unwritten agreement between physicians and NP groups that cleared the way to a broader scope of practice for Oregon NPs. NPs' intense political activity (and, some say, political power) is also viewed as a reason for their recent success in extending prescriptive privileges to include Schedule II drugs.

As the PA licensing body, the Board of Medical Examiners (BME) has authority over the expansion of PA practice within the general parameters set by law. A typical sequence to initiate a broadening of PA scope of practice begins with a PA or group of PAs presenting evidence of having competently performed certain procedures under the watchful eye of the supervising physician. The goal is to obtain BME authorization for PAs to engage in those same practices outside of the physician's direct oversight. When such bids are successful, the approved procedures become part of PAs' newly expanded practice scope (for example, allowing PAs to perform colonoscopies in Oregon was a result of this process). According to a long-time PA, barriers from within the BME tend to arise from physicians with little exposure to PAs and their work. It has been the practice of the PA representatives on the Board to, in one interviewee's words,

“educate” new physician members about the capabilities of PAs and prior experiences with expanding their scope of practice.

Legal versus Institutional Scope of Practice

Most interviewees agree that those things that laws and regulations authorize providers to do may not be reflected in the actual practices of NPs, PAs, and CNMs. NPs and CNMs are the two groups for whom a gap between legal and institutional scope of practice is most often apparent. Both NPs and CNMs are licensed as independent providers; their consultative or collaborative arrangements with physicians or other health care professionals are advised or expected based on standards of care, but not mandated by statute. CNMs, however, can only truly perform their role by securing the support of an obstetrician who can intervene in the event of childbirth complications requiring medical or surgical measures. Moreover, CNMs typically supervise hospital rather than home deliveries, and physician support is essential if hospital admitting privileges are to be granted. Yet, according to the CNMs we interviewed, forging this indispensable relationship with physicians has often been difficult in rural parts of the state. Resistance has apparently been rooted in a mix of professional rivalries and distrust, some misinformation about CNM prerogatives, and economic competition. According to one source, family physicians, more numerous and powerful in rural areas, may also oppose CNMs, whom they view as an economic threat because both types of practitioners focus on low-risk pregnancies. Given these constraints, CNMs may be effectively barred from practicing, irrespective of their legal ability to do so.

NPs faced similar challenges when they first set up independent practices serving remote communities, but the sense from most interviewees is that the long-term NP presence in areas otherwise lacking any source of primary health care has eased local NP-physician frictions. Although not required to do so, most NPs in independent practice do establish connections with consulting physicians, with little or no repercussions on their effective scope of activity.

Virtually all the NPs and CNMs we interviewed cited the obstacles they must face in their bid to obtain staff privileges at local hospitals as one of their greatest professional challenges in rural Oregon. According to some informants,

there is an even greater resistance to NPs' role in inpatient care than to CNMs'.⁵ Passage of a 1993 state law to prevent hospitals from discriminating against non-physician clinicians in the granting of admitting privileges has apparently done little to address NPs' and CNMs' complaints. Mid-level professionals can no longer be arbitrarily excluded from hospitals' inpatient staff. Nevertheless, they may still be effectively excluded by some hospitals' adoption of even stricter standards for conferring admitting privileges. Because the tighter criteria tend to be modeled on physicians' education and role (e.g., a hospital's expectation that all staff members have an inpatient internship in their training background), non-physician providers are rarely able to meet them. Possible factors for slow growth in the use of NPs and CNMs include concerns of hospitals over quality of care in an era of heightened scrutiny, misconceptions or reservations about the content of NP and CNM training, and opposition of physicians to these providers.

In comparison, informants familiar with the PA profession in Oregon rarely commented on specific barriers narrowing PAs' legal scope of practice. PAs may have been underutilized in sites where, until recently, they could not be granted remote supervision status (where a directing physician may not always be present). Some examples are student health services, family planning clinics, or public health clinics. However, we did not hear of limitations in scope of practice occurring after PAs joined a physician's practice. Unlike NPs and CNMs, PAs, we were told, are usually allowed to admit patients to area hospitals (though the directing physician takes charge after admission). Paradoxically, this prerogative results from the dependency of the PA role on a supervising physician, which leads hospital staff to accept the PA as part of a two-person team, as opposed to judging him or her by standards more suited to independent providers. It is an example of what a leader in the Northwest PA community has called "independence through dependence": because of their close connection with, and supervision by MDs, PAs may end up practicing within a broader scope than is allowed to the ostensibly independent NPs.

Relationships among Provider Types

Both recent and historical battles for the expansion of the scope of practice of PAs, NPs, and CNMs have colored the relationship between these providers

⁵ It is estimated that 93 percent of CNMs have admitting privileges at hospitals in the state, compared with 8-24 percent of other NPs (depending on specialty) (AHECs, 2000).

and the Oregon physician community. That NPs' practice is informed by the "nursing model" and physicians' by the "medical model" is the basis for at least potential friction between the two groups. The distinctiveness of the NP model of care was also one of the main factors motivating NPs' efforts to obtain independent provider status, which in turn widened the chasm between NPs and physicians and contributed to what, in the words of one observer, is the currently "tenuous" relationship between the two groups. Some interviewees said that most legislative steps granting NPs expansions of their current legal scope of practice have met with similar resistance from the Oregon Medical Association (OMA). Another view holds that the OMA exercised a sort of "benign neglect" towards NPs and their bids to obtain greater professional recognition. This occurred despite the acknowledgment, from virtually all sides of the dispute, that NPs would substantially alleviate shortages of care to underserved populations and could do so more effectively under more independent practice standards.

Political battles tend to give way to more cordial and collaborative relations when interrelationships are institutionalized. Thus, organizational fights notwithstanding, NPs and physicians get along and work together well in multidisciplinary training and care settings. By and large, NPs and CNMs (who, as discussed in earlier sections, share much of the same history and many of the concerns as NPs) believe that more opportunities for joint training and exchange of knowledge and experience with newly trained MDs will greatly contribute to improved dealings between physicians and NPs.

For all the reported tensions between NPs and physicians, some informants believe that in the beginning PAs encountered at least as great, if not greater, resistance to their expanded role in Oregon's health care system. The cause was probably unfamiliarity with PAs because in-state training programs for this profession only date back a few years. The OMA only recently acknowledged the potential contribution of the PA profession to the delivery of primary care, especially in underserved areas. According to one interviewee, the relationship between the two professions is evolving "slowly," as Oregon PAs have gained greater visibility thanks to the creation of the two PA training programs, and to the OMA lending its support to recent legislation. Indeed, in a development rich in symbolic meaning, PAs have been able to join the OMA as associate members for the past five years. Most observers credit the "medical model" that frames PA practice and PAs' general contentment with their dependent role as key to their improving relationship with physicians. However, conflicts may still arise, such as with recent legislative steps to expand the PA

prerogatives of urban centers (namely, more remote site supervision and a higher PA-to-directing physician ratio)

The relationship between PAs and NPs is complex. As one informant put it, there is “little love lost” between these two groups. PA and NP scope of practice have evolved in parallel ways, but aimed towards very different ends. PAs and NPs have collaborated on a limited number of legislative issues but have also been divided by their diverging practice paradigms—independence from physicians and adherence to the nursing model for NPs, versus dependence and adoption of the medical model in the case of PAs. PAs tend to part ways with NPs when the pursuit of common scope of practice expansions would likely strain PAs’ rapport with physicians. A recent example is NPs’ successful bid to gain prescriptive authority for Schedule II drugs, in which PAs did not participate.⁶ Though NPs and PAs may be at odds on any given legislative measure, we were told of an unspoken, but strictly adhered to agreement preventing members of the two groups from actively undermining each other in the eyes of the state legislature. Even more positive than this political neutrality accord are the current, cordial relations between the NP and PA training programs at OHSU (despite the initial unhappiness of NPs with the institution of the PA program), and the good working relationship between providers from the two professions whenever they work in multidisciplinary settings. Some observers report a growing competition for clinical training sites (especially in rural Oregon) between PAs and NPs. To the extent that an overlap exists between PA and NP practice scope, oversupply of the two professions in Oregon could also lead to struggles for limited jobs, as could changes in the legal prerogatives of one profession that might be viewed as encroaching on the other’s “turf.”

Opinions on the Current PA, NP, and CNM Practice Scope

Members of the PA, NP, and CNM professions are generally satisfied with their current legal scope of practice (judged among the most liberal in the country in all three cases) and do not predict significant transformations in the foreseeable future. In particular, the CNMs we interviewed agreed that, rather than any laws, it is the politics and attitudes of physicians in rural Oregon that must change for CNMs to become better integrated into the state’s health care system.

⁶ However, PAs were seeking Schedule II authority through a separate bill at the same time, according to one source.

Similarly, we did not hear of any major legal “push” that would expand the legal scope of NP practice, because these providers already enjoy independent status. Still, there are some desired changes. The legislature twice struck down a bill that would allow NPs to sign worker compensation claims. NPs are also not allowed to dispense medications (other than samples), something that they feel hampers their ability to deliver care to low-income populations. Lastly, at least one member of the NP community mentioned the question of insufficient Medicare reimbursement for NP services as increasingly important for NPs nationwide. This has yet to become a burning concern for Oregon NPs, but the issue calls attention to the way in which laws and regulations affecting third-party payment of NPs can have a sizable influence on their independent practice.

By most accounts, Oregon PAs do not aspire to independence from physician supervision. Members of the PA community we interviewed recognize that PA training does not prepare these providers for independent practice, and those who agitate for a more independent status are a minority in the profession. But it seems undeniable that the success of recent initiatives aimed at broadening remote supervision create a tension with the traditional dependent role of PAs. A long-time PA also commented on recurring attempts by some PAs to legally change their professional title to avoid being confused with “medical assistants,” which they consider demeaning. On the whole, one observer commented that foreseeable changes in PAs’ legal scope are likely to be in the form of case-by-case allowances with respect to specific procedures.

The Present and Future Status of Access to Care for the Underserved

The universal opinion emerging from our interviews in Oregon is that access to care for the underserved has improved dramatically over the past decade thanks to the implementation of the Oregon Health Plan. As one long-practicing rural PA told us, people with chronic health care problems that previously went untreated could finally afford to come into a clinic and take care of their diabetes or high-blood pressure. But well prior to the Plan’s implementation, both NPs and PAs had been contributing heavily to care in rural and underserved areas of Oregon. NPs established themselves first, providing in some cases the only type of primary health services available to the local population. Their independent practice prerogatives have facilitated their penetration into rural areas by granting them the ability to set up freestanding clinics. As one policy maker put

it, many more populations in Oregon would be medically underserved if not for the long-time presence of NPs in rural communities.⁷

PAs acquired professional recognition in Oregon earlier than NPs and have also played an essential role in rural parts of the state, though they remain somewhat less established there than NPs. Our interviewees agree that one of the reasons why there are fewer PAs than NPs in rural places is PAs' mandatory connection with a physician who is willing to supervise the PA (at least periodically in person, even in remote locations) where the PA sets up practice. Nonetheless, PAs still have a strong role in some rural Oregon areas. We often heard of one, particularly isolated locale whose PA-staffed clinic (with the benefit of a physician's remote supervision) has been the only source of primary care for the past 20 years. Similar accounts were given for other rural counties as well. A remarkable finding (especially in light of some of the demographic trends discussed earlier in this report) is that newly available health care in a community can halt and even reverse the trend of local people—especially the elderly—moving out of the area. Also significant is the active role of rural communities in securing their own health care. In one example, the local population raised the majority of funds that allowed the construction of a new, NP-staffed health facility. Another community formed a tax district to support seven-day-a-week access to a PA clinic. These instances are attributed to Oregonians' traditional activism that, according to someone familiar with the legislative process, frequently initiates health legislation.

As for attracting practitioners to rural areas, more than one interviewee mentioned current eligibility for a \$5000 yearly personal income tax credit as an important incentive. The credit is available to other rural providers, besides PAs, NPs, and CNMs, and plays a crucial role in curbing the impact of typically lower rural than urban incomes. Other financial stimuli may include scholarships and loan-repayment awards.

Along with an overall positive appraisal of the care delivered to vulnerable populations in recent years, we heard about emerging negative trends. Oregon has long prided itself on being one of the states with the lowest percentage of uninsured people, but it is now trailing behind other parts of the country. Moreover, the past three years have seen a reversal of the trend towards managed care penetration that had been pervasive all across Oregon through

⁷ By comparison, recent work by Larson et al. (2003) shows that the combined contribution of PAs and NPs accounts for 24.7 percent of all generalist visits in rural areas of Washington State.

the mid-nineties. Managed care plans have backed out of most rural counties, and especially in coastal southern Oregon, providers have been dropping out of what managed care plans have remained. These developments create new barriers for Medicaid clients enrolled in managed care plans who must sometimes travel considerable distances to access the system.

Our interviews suggest that health care prospects for the underserved are mixed in the near future. A PA working in rural Oregon mentioned the potential access problems created by new and more cumbersome Medicare rules. However, another provider working in the same area predicted that access may generally improve in rural areas, thanks to the federal law passed a year ago requiring states to pay rural clinics on a cost-reimbursement basis. A fundamental threat to health care delivery to needy populations may be represented by the current crisis of the Oregon Health Plan. One informant described the system as “fragile,” with financial burdens escalating beyond what the structure can sustain. Shrinking ranks of managed care providers have meant rising fee-for-service and pharmaceutical expenses, especially in rural areas. But the problem, as stressed by an observer, is cost and claims of reimbursement, rather than provider supply.

An additional reported barrier is the federal government’s resistance to granting Oregon a new Medicaid waiver, which would expand coverage to residents with incomes below 200 percent of the federal poverty line (150% is the current limit). This proposed expansion would address the problem of the uninsured working poor. But the state-level push towards a broader safety net takes place against the backdrop of an ongoing debate over the future of the Oregon Health Plan.

One last aspect of the delivery of care to rural Oregon populations has less to do with access in an absolute sense than with choice of providers of prenatal and childbirth services. Primary care physicians and obstetricians do fill the obstetric capacity of most areas, and the state’s Medicaid system guarantees coverage for the poor in underserved areas. But by all accounts, the option of assistance by a CNM, rather than by a physician, is scarcely available to rural women because of the low supply of CNMs outside of the large population areas.

Data Sources and Needs

Another important purpose of this report is to document the sources and quality of data on Oregon PAs, NPs, and CNMs available to decision makers in various settings. While much of this information is derived from electronic or print publications, our fieldwork also contributed significant insights, as several informants reflected on the need for more and better resources and, in at least one case, expressed their frustration at the poor utilization of existing data.

General Data Sources

A good place to start forming a picture of the state's mid-level health workforce is the volume devoted to Oregon in the *HRSA State Health Workforce Profiles* series, published in December 2000. This fairly comprehensive, easy to consult book pairs an overview of Oregon's population, health status, and health services with charts on the estimated supply and attributes of several provider types, including PAs, NPs, and CNMs. Despite some variation in the types of data presented for each of those three provider types, current and projected head counts, supply per 100,000 population, medium wages, and race/ethnic and gender composition are given for PAs, NPs, and CNMs alike. The report is available on CD-ROM and in paper copy through the HRSA Information Center, 1-888-275-4772 (1-888-ASK-HRSA).

The OHSU Office of Rural Health also maintains data on numbers of primary care providers by county and ZIP code areas, as well as population data by county. This agency is also the main source for information on supply in relation to access to care in underserved areas. The Office is responsible for the criteria identifying "Areas of Unmet Health Care Needs"—a state-level designation—and for applying to Oregon federal definitions of HPSAs (Health Professional Shortage Areas) and MUAs (Medically Underserved Areas). The first report showing Oregon health care needs based on state and federal rules was published in 1998. This report, titled "Assessing Health Care Needs in Rural Oregon, 1998" can be obtained from the Office of Rural Health, Oregon Health Sciences University, at (503) 494-4450. A second, updated version is being developed and should be released by the end of 2001.

Data Sources for PAs

Both national- and state-level agencies and professional organizations track physician assistants' numbers, training, practice location, and other characteristics. For the timeframe of interest (roughly the 1990-2000 decade), the Area Resource File (ARF) includes the number of PAs in each Oregon county for 1990, 1998, and 1999. Other county-level variables describe various aspects of the state's population, geography, and health care delivery system, thus allowing the recorded number of PAs to be placed and analyzed in a broader context. One caveat is that data on some of the variables may be missing for certain years. Information on the ARF Information System is found at <http://www.arfsys.com/>.

The American Academy of Physician Assistants (AAPA) collects a wide range of national and state-level data on both member and non-member PAs. Print and electronic reports contain current numbers and projections of PAs in clinical practice, enrollees and graduates of PA training programs, and PAs' educational background and practice characteristics, among other data. The data come from a yearly census of PAs; data on AAPA members only are available since 1990 and for both members and non-members since 1996. The AAPA also gathers and updates state-by-state data on the regulatory requirements for PA practice across the country. Oregon PAs seem to regard AAPA state-by-state data to be an adequate, reliable source of information for local trends in the profession. More details on available data can be found on the AAPA web site at <http://www.aapa.org/>.

The Oregon AHECs have detailed the characteristics of the state PA workforce in the recently published "Physician Assistant Profile, 2000," part of a larger Oregon Health Workforce Project (a similar document is also available for NPs). Data come from a survey of PAs licensed in Oregon in 2000 querying respondents on their demographic attributes (such as age and race/ethnicity), training, practice setting and patterns, and other aspects of their professional lives. The survey had a 66 percent response rate, out of the 308 PAs to whom it was mailed. Because this was the first report of its kind, comparative data from earlier years are not available. The "Profile" can be requested by e-mail to ahec@ohsu.edu or by fax to (503) 494-0626.

Lastly, the Board of Medical Examiners, the agency responsible for PA licensing in the state, maintains a list of active and inactive Oregon-licensed PAs. The list receives quarterly updates and is available in electronic or print

format for the entire period 1990-2000 by contacting the Board at (503) 229-5770, fax (503) 229-6543.

Data Sources for NPs and CNMs

A key source of data on Oregon NPs and CNMs is the State Board of Nursing, which licenses both professions. On-line statistical reports on NPs can be found at <http://www.osbn.state.or.us/> for all years since 1993. In addition, the overall number of actively licensed Oregon NPs, number of newly issued versus total licenses, and actively licensed NPs employed in the state (by county and by specialty) exist for every year since 1990 (and as far back as the 1970s in some cases). Access to older records is provided upon request. From 1993, NPs' age, gender, race/ethnicity, employment setting and status, education, and training have also been consistently reported. The Board of Nursing has recently transferred all available data into a more flexible database capable of handling complex queries, which can be addressed by contacting the agency.

Another valuable resource on NPs is the Oregon AHECs' report titled "Nurse Practitioners Profile, 2000." As with PAs, this snapshot of NPs in Oregon is based on surveys sent out to all 1569 practitioners licensed in Oregon in 2000, which yielded a 63 percent response rate. The report contains data on respondents' demographic characteristics, training, practice, and other aspects of their professional lives. It can be requested by e-mail to ahec@ohsu.edu or by fax to (503) 494-0626. Because the 2000 survey was the first of its kind, a longitudinal or trend analysis is not possible at this time.

Because in Oregon CNMs are certified as NPs, data sources on NPs typically describe CNMs as well, though in a more limited fashion. In both the Board of Nursing and AHECs' reports (see information on NPs), CNMs are listed as one among the several classes of NPs licensed in the state (along with Adult Acute Care, Family, Geriatric, Neonatal, Pediatric, Psychiatric/Mental Health, and Women's Health Care NPs). Unfortunately, details about CNMs are obscured whenever NPs in general are described. In the Board of Nursing Statistical Reports, partial data on CNMs include the number actively licensed and employed in the state by county (available from 1990 on). For the year 2000, the AHECs' "Nurse Practitioner Profile" also lists the percentage of Oregon NPs who are CNMs, but adds demographic details, information on their practice scope and actual practice, their degree of professional satisfaction, and whether they hold national certifications.

Most fieldwork participants expressed their wish for more numerous and more detailed data on the three professions. For instance, it would be helpful to trace both head counts of PAs, NPs, and CNMs in various areas (as it is currently done), and their productivity and contribution to care in full-time equivalent (FTE) terms. In order to do so, a more precise identification of each provider type seems essential, given that, at present, not only are CNMs often confounded with NPs, but also NPs may be undistinguishable from other RNs (such as in Department of Labor data). A better sense of where providers actually practice would also be in order, as current data tend to confound providers' residential and professional addresses, and fail to reflect the possibility of multiple practice locations.

Regrettably, some participants told us, professional licensing bodies—the very agencies with the authority and reach to implement detailed, statewide surveys—do not necessarily place in-depth data collection very high on their agenda. Another barrier is that participation of providers in surveys has mostly been voluntary. This may soon change, at least for those in the nursing profession: one informant told us that the Oregon legislature has recently granted the State Board of Nursing permission to make answering some basic demographic questions mandatory for its licensees.

Discussion

Summary

Our findings suggest the continuous growth of the PA, NP, and CNM professions in Oregon. Between 1992 and 2000, the numbers of these providers have increased, leading some to predict a saturated market, especially for PAs, in the near future. However, others call attention to ongoing shortages of mid-level clinicians in rural parts of the state. CNMs, in particular, lament persistent obstacles to their practice in many of Oregon's most remote counties. A notable finding is the overall modest effect of managed care penetration on utilization and supply of PAs, NPs, and CNMs.

The historically complex relationships among mid-level providers, and between them and physicians, appear to be moving slowly toward greater collaboration and recognition of each others' distinct roles within the state's health care system. This may be due in part to the greater visibility acquired in

recent years by PAs, NPs, and CNMs as their ranks have swelled with providers from out of state, and with graduates from both established and new in-state training programs.

The migration into Oregon of providers from other parts of the country seems to be a result of the relative openness of the state's PA, NP, and CNM laws, which have further expanded over the last decade. Salient aspects of these providers' scope of practice include independent practice and authority to prescribe Schedule II-V drugs for NPs and CNMs; possibility of off-site physician supervision and authority to prescribe Schedule III-V drugs for PAs; and mandatory third-party payment for all three professions.

Finally, the question of access to care for the underserved is heavily influenced by the successes and failures of the Oregon Health Plan. Within this context, many credit mid-level providers with making a unique contribution to improved health care delivery to Oregon's rural populations.

Limitations

Perhaps the clearest shortcoming of this study is its small sample size. A larger number of respondents would no doubt make possible a richer and more nuanced account of the role of PAs, NPs, and CNMs in Oregon's health care system. Extending and improving on the current project might also involve identifying a representative sample of PAs, NPs, CNMs, and physicians from around the state to survey and/or interview.

More site visits could also add important dimensions to a study concerned with access to primary care by the underserved, especially in remote rural areas. As it stands, our limited ability to observe some of the realities emerged in the course of interviews, prevents us from painting a more complete picture of PA, NP, and CNM practice and contribution to care throughout Oregon.

Finally, we are constrained by the same general problems with quality and availability of secondary data that we discuss in the preceding pages. In the future, regular collection of more extensive data on the three professions could allow researchers to track accurately variations in supply across time and regions of the state, as well as connect those trends with evolutions in the legal scope of practice.

Conclusion

What Factors Have Been Responsible for Any Changes in the Legal Scope of Practice of PAs, NPs, and CNMs in the State of Oregon Between 1992 and 2000?

Our fieldwork shows that the professions themselves have typically initiated actions aimed at changes in their legal scope of practice. The health care context in which such lobbying takes place may also have played a role, to the extent that the proposed changes have been viewed as a way of addressing systemic problems throughout the state, such as access to care in remote areas. There are also indications that the evolving relationship between physicians and non-physician clinicians has made broader prerogatives for PA, NPs, and CNMs easier to obtain, as each professional group comes to recognize and even support the distinct role of other providers within the health care system.

Are Changes in the Three Professions' Scope of Practice Linked to Shifts in the Supply of PAs, NPs, and CNMs, and in the Access to Health Care Provided to Underserved Populations During that Same Period?

Our data provide mixed indications on the existence and direction of a correlation between supply of PAs, NPs, and CNMs and evolution in their scope of practice. In comparison, our interviews suggest that expansions in PA, NP, and CNM scope of practice may have contributed to improved delivery of care to rural and underserved populations in Oregon, although more so with PAs and NPs than with CNMs.

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Appendix

Scope of Practice Project: Interview Questions

History of Supply

Has the supply of NPs, PAs, and CNMs increased, decreased, or remained stable during the past decade? How would you rate any changes on a scale from slight to severe? Do you know of any reports showing the numbers available?

Would you say that shortages in each of these provider types are non-existent, slight, moderate, or severe? Please, describe.

If shortages exist, are they worse in some parts of the state than in others?

In your opinion, have managed care penetration and /or training issues affected the supply of these providers? If so, to what extent?

Can you think of other factors influencing supply in the state?

Has Oregon's scope of practice for NPs, CNMs, PAs, attracted providers from other parts of the country? If so, historically, more recently, or both?

On the other hand, are the market, work conditions, or both pushing Oregon providers to go out of state?

Would you say that the quantity and quality of data on these providers available to policy makers have improved or declined? Do you think current data are adequate or inadequate to inform policy? What is needed?

History of Scope of Practice

Has scope of practice of NPs, PAs, and CNMs in your state changed in the past decade? If so, in what ways (for example, has scope of practice expanded or narrowed)?

Factors, Forces and Barriers Affecting Scope

Do you feel that non-legislative factors have played a role [in any changes in scope of practice]? Please explain.

How are legal changes initiated (lobbying from within the professions, communities, other)?

Is there a link between changes in providers' training and changes in their legal practice scope? If so, which of the two drives the other?

In practice, is the institutional scope of practice of these providers—what they are allowed to do in various settings—equal to, narrower or broader than the legal scope?

How frequently are providers limited in their practice settings, despite the breadth of their legal scope? Has the fair practice legislation of 1993 affected the granting of hospital privileges to PAs, NPs, and CNMs?

Do these provider groups collaborate or compete with each other? Do they collaborate or compete with physicians?

How would you describe relations between **your** profession and physicians in Oregon?

Does the current scope of practice (legal and/or institutional) encourage collaboration or competition?

Have any changes in scope of practice improved, worsened, or had no effect on
Quality of care
Access to care
Cost of care
for various populations, particularly rural and underserved, during the past 10 years?

Opinions on Current Scope

Do you feel the current scope of practice is too limited or not limited enough?

Does the current state environment (cultural, political, institutional) favor limited scope of practice or encourage expansion of scope of practice for these providers?

Are there any obstacles to the integration of PAs, NPs, and CNMs into health care in Oregon? If so, what are the major ones?

Has that environment become:

Unchanged

Progressively more supportive of expanded practice

Progressively less supportive of expanded practice?

Over the past decade? Due to what factors?

Please describe any reimbursement problems **your** profession experiences in your state.

What changes would you like to see in the scope of practice for **your** profession in Oregon?

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