A Profile of Colorado's Physician Assistant Workforce

Key Findings from the 2011 Physician Assistant Survey

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Table of Contents

Introduction

Over the past several decades, federal and state policymakers have been faced with developing effective workforce policy in response to a primary care workforce that is not meeting the health care needs of many communities. In the next decade and beyond, Colorado, like the rest of the United States, faces a rapidly aging population. In addition, there will be increased demands for care from the newly insured as a result of the federal Patient Protection and Affordable Care Act, the federal health reform bill passed in March 2010.

Adding to the challenge of ensuring that Colorado will have the health care workforce capacity it needs is the fact that the workforce is aging and many members are approaching retirement age. Colorado also has a geographically mal-distributed physician workforce, as the majority of health care professionals prefer to practice in urban or suburban settings, leaving large numbers of rural communities with inadequate or no primary care resources.

Health services research over the past 30 years has found that the introduction of the physician assistant (PA) profession in the early 1970s has been one of several promising strategies to expand the primary care workforce, particularly in rural and other underserved areas. PAs are certified health care professionals licensed to practice clinical medicine under the supervision of a licensed physician, within the scope of practice specified by the medical practice act of their particular state. Within the physician-PA delegated-authority relationship, physician assistants may exercise relative autonomy in medical decision-making, providing a broad range of diagnostic and therapeutic services.

To gain a better understanding of the characteristics of Colorado's PA workforce, the Colorado Health Institute (CHI) surveyed physician assistants licensed in Colorado. This report presents a picture of the demographic attributes of Colorado PAs and highlights key findings as they relate to workforce policy issues of relevance to Colorado policymakers. Specifically, the paper discusses factors that are associated with the availability of Colorado's PA workforce, including:

- Educational preparation
- PAs in primary and specialty care
- Practice settings of PAs
- PA contribution to primary care access in rural and other underserved areas of the state
- Barriers to expanding PA practice
- Evolving supply of PAs.

Key Findings

While the PA profession was created to improve primary care capacity, particularly in underserved areas, the trend toward specialty care among PAs could jeopardize this objective. Findings from CHI's 2011 Physician Assistant Workforce Survey also indicate that a large proportion of the practices in which PAs work do not accept new Medicaid or Child Health Plan Plus (CHP+) enrollees—two mean tested programs intended to provide insurance coverage to low income Coloradans.

The number of PAs in Colorado has increased significantly, particularly among women. While female PAs are more likely to practice primary care compared to their male counterparts, they, however, are also more likely to work part time—a trend that limits direct patient care.

Many PAs expressed dissatisfaction with their salaries which, at least in part, may explain the trend toward working in specialty care.

On average, the PA workforce in Colorado is younger than the state's nurse practitioner workforce (NPs). This is important as both PAs and NPs can deliver primary care and are well-positioned to support the expansion of primary care capacity but the career paths of these two professions are quite different. NPs have careers as registered nurses prior to becoming advanced practice nurses. The fact that PAs tend to have longer careers than NPs (not counting an NPs' prior work as an RN) suggests that a PA's return on graduate educational investment may be greater, given the similar earning potential of these two professions.

PAs showed interest in taking on faculty roles or in serving as preceptors for health professions students. This finding is important given concern about the future adequacy of the educational pipeline for health professionals. PAs' interest in teaching represents an opportunity to improve the quality and expand the capacity of the current health professions education system.

National perspective on the PA workforce

The U.S. Bureau of Labor Statistics (BLS) projects that the physician assistant profession will be one of the fastest-growing occupations from 2008 to 2018, with a 39 percent increase in expected workforce needs. Nationally, this means that the demand for PAs is expected to increase from 74,800 in 2008 to 103,900 by 2018, requiring 29,200 additional physician assistants in the workforce. The BLS expects the highest demand for PAs will be in rural areas and the inner city, with the greatest increases in states that permit the widest scope of practice for PAs.[1]

In a primary care practice, PAs take medical histories and see patients, including examining, diagnosing and treating them, ordering and interpreting lab tests and x-rays. PAs have prescriptive authority in all 50 states and work in virtually all health care settings.[2] In the surgical medical specialties, PAs take pre-operative histories, order and compile diagnostic tests and provide post-operative care.

Residents of rural communities who might otherwise be without a health care provider may have primary care access as a result of a PA-staffed clinic. Physician assistants always work under the supervision of a licensed physician, however, as required by state statute. They consult with their supervising physician or other health care providers as needed.

Colorado perspective on the PA Workforce

EDUCATION

Currently, there are 156 accredited entry-level PA programs in the United States.[3] Among these programs are The Child Health Associate/Physician Assistant program (CHA/PA) in the School of Medicine at the University of Colorado and the PA Program at Red Rocks Community College.

Established in 1968, the three-year CHA/PA program offers graduates a master's in physician assistant studies (MPAS). While the CHA/PA program provides training for care across the lifespan; it remains the only program nationally to offer expanded training in pediatrics. The program includes a unique two-year behavioral medicine, mental health curriculum and rural, global health, advocacy and urban/underserved tracks.

In 1992, the CHA/PA program launched a rural track which is now an official interdisciplinary track of the School of Medicine. Up to 25 percent of each year's class may participate in the rural track. Each year the program admits, on average, a class of 40 students and has graduated over 820 PAs. The most recent class is 83 percent female, 66 percent are residents of Colorado and they range in age from 22 to 44.

The Red Rocks Community College (RRCC) PA Program was established in 1998. Class size averages 28-30 students per year. The program offers a Certificate of Physician Assistant Studies. Students accepted into the program, however, may choose to receive a master's degree through RRCC's affiliation with Saint Francis University at Loretto Pennsylvania via a long-distance learning program. The program is also affiliated with Regis University in Denver which awards a master's degree in clinical leadership.

EMPLOYMENT

In September 2010, Colorado had 1,898 actively licensed physician assistants, according to the Department of Regulatory Agencies (DORA).[4] Among this group, 134 physician assistants were newly licensed in 2010. While many Colorado counties saw an increase in the number of physician assistants in 2010, some saw a decrease, including Alamosa, Adams, Clear Creek, Delta, Douglas, Grand, Hinsdale, LaPlata, Logan, Mineral, Montezuma, Morgan, Rio Blanco, Routt, San Miguel, Teller and Weld.[5] The Colorado Department of Labor and Employment (CDLE) estimated that in 2009 Colorado employed 1,459 physician assistants and that the PA workforce is expected to increase an average of 2.6 percent annually. At this rate, Colorado would need a total of 1,893 employed PAs by 2019, representing a 29.7 percent growth in jobs.[6] This is significantly lower than the 39 percent national growth projected by the BLS over the same time period.

Individual state statutes and regulations delineate the scope of practice of PAs. In Colorado, a supervising physician may delegate authority to a PA as long as those delegated activities are consistent with the physician's education, training, board certification and active practice. The physician must meet at least biannually with an established PA. New physician assistant graduates receive much closer supervision.[7]

Colorado PAs may be authorized by their supervising physician to write prescriptions for drugs, including controlled substances if the PA has a DEA number. Physician assistants may also be authorized to dispense drugs or medical devices, as long as the source is a supervising physician, pharmacist or pharmaceutical representative.[8]

The 2011 PA Study

CHI developed the 2011 Colorado Physician Assistant Workforce Study to identify and analyze key factors and issues affecting the supply and distribution of physician assistants in the state. The study included an examination of current physician assistant workforce literature and a survey to collect primary data from PAs in Colorado.

METHODS

Literature Review

A review of recent literature was conducted to provide background on the physician assistant profession, to identify national trends in the PA workforce and to pinpoint key factors affecting the Colorado PA workforce. The 2009 National Physician Assistant Census Report, which is conducted annually by the American Academy of Physician Assistants (AAPA), was useful in providing context for the 2011 Colorado PA survey data. National findings presented in this report were largely based on the AAPA's analysis of its 2009 National Physician Census Report.[9] Altogether, 19,608 PAs participated in the 2009 AAPA survey. This total represents 27% of those eligible to practice as a PA and for whom the AAPA has contact information.

Survey administration

In January 2011, CHI sent 1,000 cover letters and survey questionnaires to a stratified random sample of individuals holding an active license to practice as a physician assistant in Colorado. Accounting for undeliverable mail, it was presumed that 981 PAs received the survey.[10]

Response rates and data analysis

CHI received completed surveys from 585 PAs, representing a 60 percent response rate. The data were weighted for gender and geographic distribution to match the overall PA workforce population of 1,898 licensed PAs. The percentages and numbers cited in this report, therefore, are reflective of the entire population of licensed Colorado PAs, not just the survey respondents.

2011 Colorado PA Workforce Survey findings

Profile of Colorado's Practicing PAs

- 1,898 PAs were licensed to practice in Colorado in 2010
- 94% of licensed PAs were working in a clinical practice as a PA in Colorado

Among Colorado's currently working PAs (N=1776)

- 18% were aged 55 or older
- 92% were White, non-Hispanic
- 67% were female
- 26% spent their childhood in a rural community
- 9% were fluent in Spanish and spoke Spanish with patients
- 46% have a PA master's degree
- 25% have a PA certificate
- 38% graduated from a physician assistant program in Colorado
- 43% provide primary care 50% or more of their practice time
- 11% practice in a rural area in their principal PA position
- 61% of PAs working full-time (≥ 32 hrs/wk) earn more than $80,000 per year

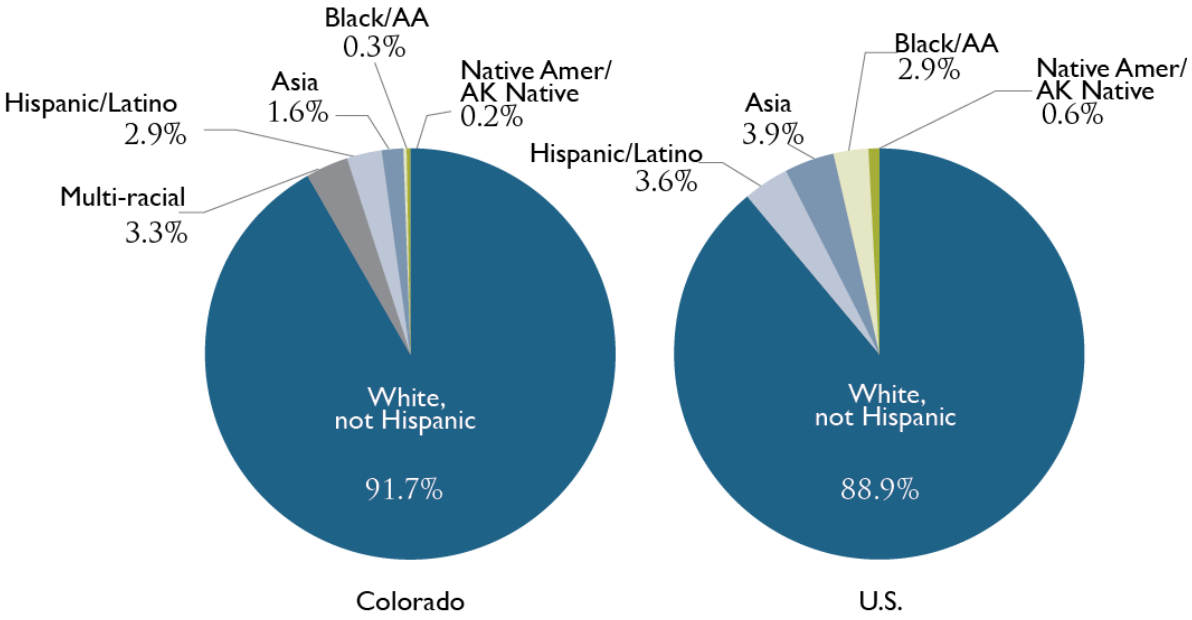
SOURCE: 2011 Colorado PA Workforce Survey, Colorado Health Institute

Demographic findings

Historically, the PA profession has been predominately male. This trend, however, has changed over the past several decades as many women have come to view the PA profession as an alternative to a career as a physician or nurse practitioner.[11] In fact, 67 percent of Colorado's practicing PAs are now female, slightly above the 65 percent of female respondents to the 2009 National American Academy of Physician Assistant (AAPA) Census survey. Demonstrating the appeal of the PA profession to women, 83 percent of the most recently admitted class at CU Denver's CHA/PA program is female.[12]

As Graph 1shows, a higher percentage of Colorado PAs are white (92 percent) compared to 89 percent of PAs nationally. Like Colorado's physician and advanced practice nurse workforce, the state's PAs are not as ethnically and racially diverse as the population. For example, 3 percent of Colorado PAs were Hispanic and only 0.3 percent were Black, compared to 2010 Census figures which showed 20 percent of Colorado's population is Hispanic and 4 percent is Black.[13] Given the size of the Hispanic population in Colorado, there is likely to be a need for Spanish-speaking health care providers, yet only 9.4 percent of PAs reported speaking Spanish with their patients.

Graph 1. Ethnicity and race of Colorado PAs, 2011, and PA survey respondents U.S., 2009



SOURCE: 2011 Physician Assistant Workforce Survey, Q24, Q4, 2009 National Physician Assistant Census Report

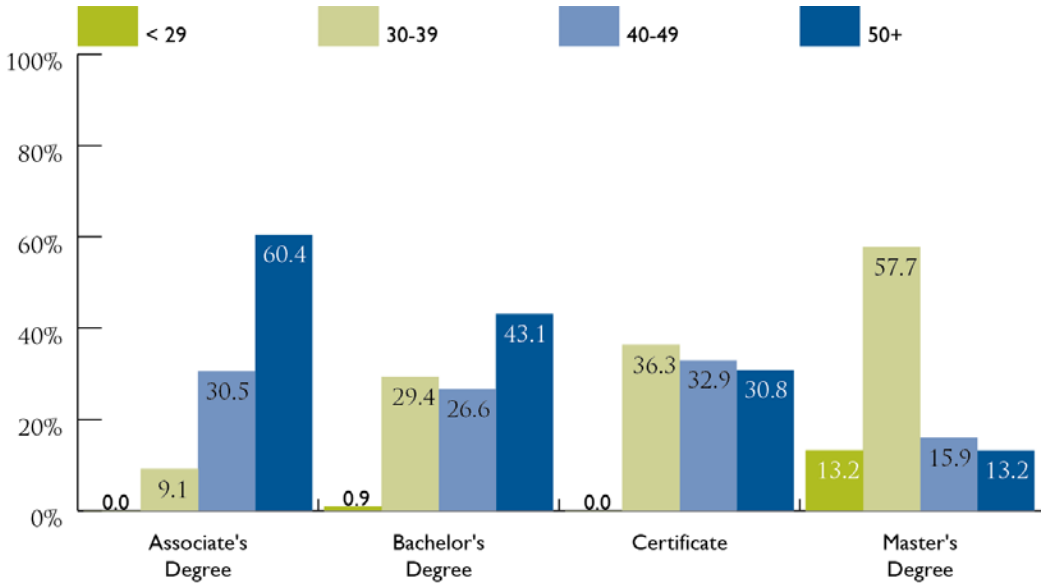
National studies examining the preferences of individuals from racial and ethnic minorities have found that many prefer to receive care from physicians who have similar racial, ethnic and cultural backgrounds. [14] In addition, physicians who identify themselves as a racial or ethnic minority have been found to provide more health care to minority, underserved or medically indigent populations when compared to their White colleagues. [15] If the same associations are true for other health care professionals, it would suggest that increasing the ethnic and racial diversity of the PA workforce could improve access to these historically underserved populations.

Educational Findings

Over the course of its development and expansion, PA education has been moving away from associate degree and certificate programs to graduate degrees, specifically master's degrees from PA programs. [16] In 2006, according to the AAPA, 35 percent of PAs had a master's degree and 44 percent had a bachelor's degree from an accredited PA program. [17] In Colorado, the percentage of PA's with master's degrees is higher, at 46 percent, while only 25 percent of have a certificate. The remaining Colorado PAs have an associate degree, a bachelor's degree, PA military training or other PA education.

The survey findings showed an association between educational background and age. PAs age 39 and younger were more likely than their older colleagues to have a master's degree. While few practicing PAs were age 29 or younger, almost all in this group had completed a PA master's degree program. Graph 2 shows that while many PAs continue to complete PA certificate programs, the percentage holding a PA master's degree has increased dramatically. Only 23 percent of all Colorado practicing PAs age 50 and older had a PA master's degree, compared to 60 percent of those ages 30-39. [18]

Graph 2: Educational degrees from PA programs awarded by age group, Colorado



SOURCE: CHI: 2011 Physician Assistant Workforce Survey, Q24, Q2, Q13

Nearly half of working PAs (45%) reported having educational loans in excess of $50,000 (Graph 3); within this group 9 percent had loan debt in excess of $100,000. Under standard repayment terms (10 years), a $50,000 loan at 6.8 percent interest could result in monthly payments as high as $575 a month. This finding may explain, to some degree, why PAs are shifting to higher-paying specialty practice. It also suggests that favorable interest rates and loan repayment programs could reduce the financial barriers associated with PA education.

Table 1. Educational Loan Indebtedness

Amount of loan	Percent
Did not have loans	16.7%
$10,000 or less	5.6%
$10,001-$20,000	7.9%
$20,001-$30,000	9.9%
$30,001-$40,000	7.8%
$4-,001-$50,000	7.4%
$50,001-$60,000	7.6%
$60,001-$70,000	9.5%
$70,001-$80,000	7.8%
$80,001-$90,000	6%
$90,001-$100,000	4.5%
$100,000 or more	9.3%

SOURCE: CHI: 2011 Physician Assistant Workforce Survey, Q24, Q15

EMPLOYMENT FINDINGS

Among PAs licensed in Colorado, 94 percent were working as a PA in the state. This figure is considerably higher than the percentage of licensed advanced practice nurses (APNs) engaged in practice as an APN (78%) in Colorado.[19] In part, this may be due to the fact that Colorado's PAs are younger than their APN counterparts, who may remain on the APN registry even though they are retired. Only 18 percent of PAs are age 55 or older compared to 44 percent of APNs.

The survey found that most PAs were employed in a single position, although 18 percent were employed in more than one. The average number of years PAs have been in practice is just under 11. Seventy percent of PAs have been practicing in their current area for fewer than 10 years, but 15 percent have done so for 15 to just under 20 years. This likely reflects the recent interest in and growth of the PA profession.

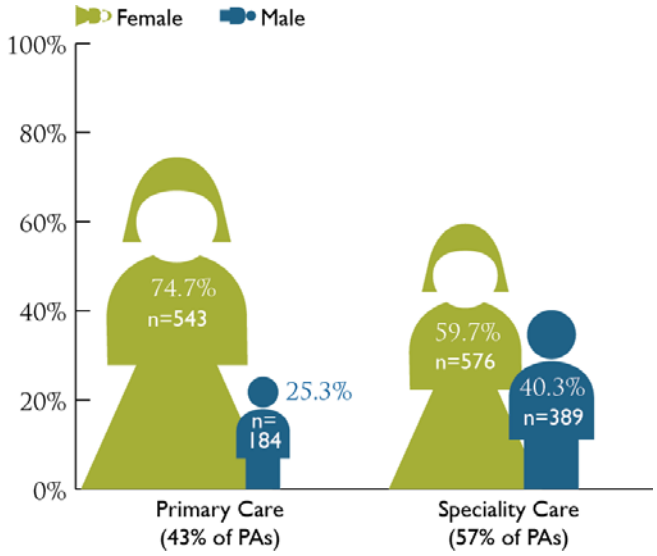
Among working PAs, 79 percent were employed full time. A lower percentage of female PAs worked full time (72%) compared to their male counterparts (92%). Given that the average age of female PAs was 41 years in 2011, many may be working part time to balance work with family and child-rearing responsibilities. This difference in full-time employment is important to understand as the percentage of PAs who are female continues to grow.

Similar to the practice patterns of physicians, PAs nationally are increasingly moving away from primary care practice into other specialties.[20] Since PAs work under the license of their supervising physician, their practice patterns mirror those of physicians to some degree. Despite this, a higher proportion of PAs than physicians continue to work in primary care practice settings.

Nationally, 35 percent of physicians identify themselves as primary care practitioners, while in Colorado only 29 percent classify themselves as providers of primary care. In 2011, the CHI survey found that 43 percent of Colorado's PAs were practicing 50 percent or more of their time in a primary care area, defined as general internal medicine, family medicine, general pediatrics, and prevention and wellness. This figure is higher than PAs nationally, with only 36 percent reporting practicing primary care at the time of the most recent AAPA census survey.[21]

As shown in Graph 3, among the PAs who spent at least half of their clinical practice time in primary care, three-quarters were female while only 25 percent were male. Of the 57 percent of PAs practicing predominately in a specialty area, 60 percent were female and 40 percent were male. This distribution is important given that females PAs work part time more frequently than males. Like the differences in full-time versus part-time practice, however, gender differences also occurred in practice type.

Graph 3. PA primary versus specialty care by gender, Colorado

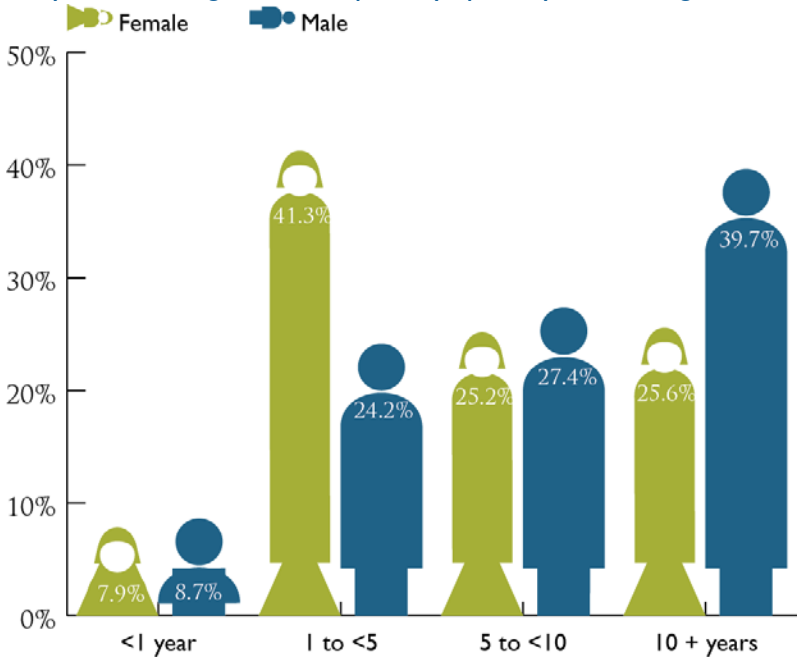


*PAs were classified as primary care if they practiced family/general medicine, general internal medicine, general pediatrics or prevention/wellness at least 50% of their practice time during a typical work week.
SOURCE: CHI: 2011 Physician Assistant Workforce Survey, Q24, Q17, Q1.

What Graph 3 doesn't show is that the percentage of female PAs who practice in primary care (49%) is not dramatically different from those in specialty practice (51%), but the same is not true for males, of whom more than two-thirds practice in a specialty. With more females entering the PA profession, there is reason to expect that this shift will lead to an increase in the number of PAs practicing in primary care. As noted earlier, however, female PAs are much more likely to work part time compared to their male counterparts. So while primary care capacity is likely to increase due to more women pursuing PA careers, it will be tempered by their limited working hours.

Graph 4 summarizes how long female and male PAs have been working in their current primary specialty. While 40 percent of men have worked 10 years or more in their current specialty, only 26 percent of women have been in their current specialty this long. These gender differences may reflect the extent to which men entered the PA profession earlier than women.

Graph 4. Number of years working in current primary specialty based on gender



SOURCE: CHI: 2011 Physician Assistant Workforce Survey, Q24, Q1, Q23.

The most common specialty practices of Colorado PAs are surgical sub-specialties, emergency medicine and, to a lesser degree, dermatology and sub-specialties in internal medicine. Although many PAs are practicing in non-primary care specialties and sub-specialties, the survey found that fewer than 4 percent of Colorado PAs have completed Certificates of Added Qualifications (CAQ), awarded by the National Commission of Certification of Physicians Assistants. Numerically, only two survey respondents reported a CAQ in orthopedic surgery, even though surgical sub-specialties were the top sub-specialty practice. Similarly, only one survey respondent reported a CAQ in emergency medicine, despite the fact that emergency medicine was the second-highest PA sub-specialty. This suggests that unlike board certification for physicians, CAQs are not regarded as an important specialty practice credential for PAs.

PRIMARY CARE ACCESS IN COLORADO'S RURAL COMMUNITIES

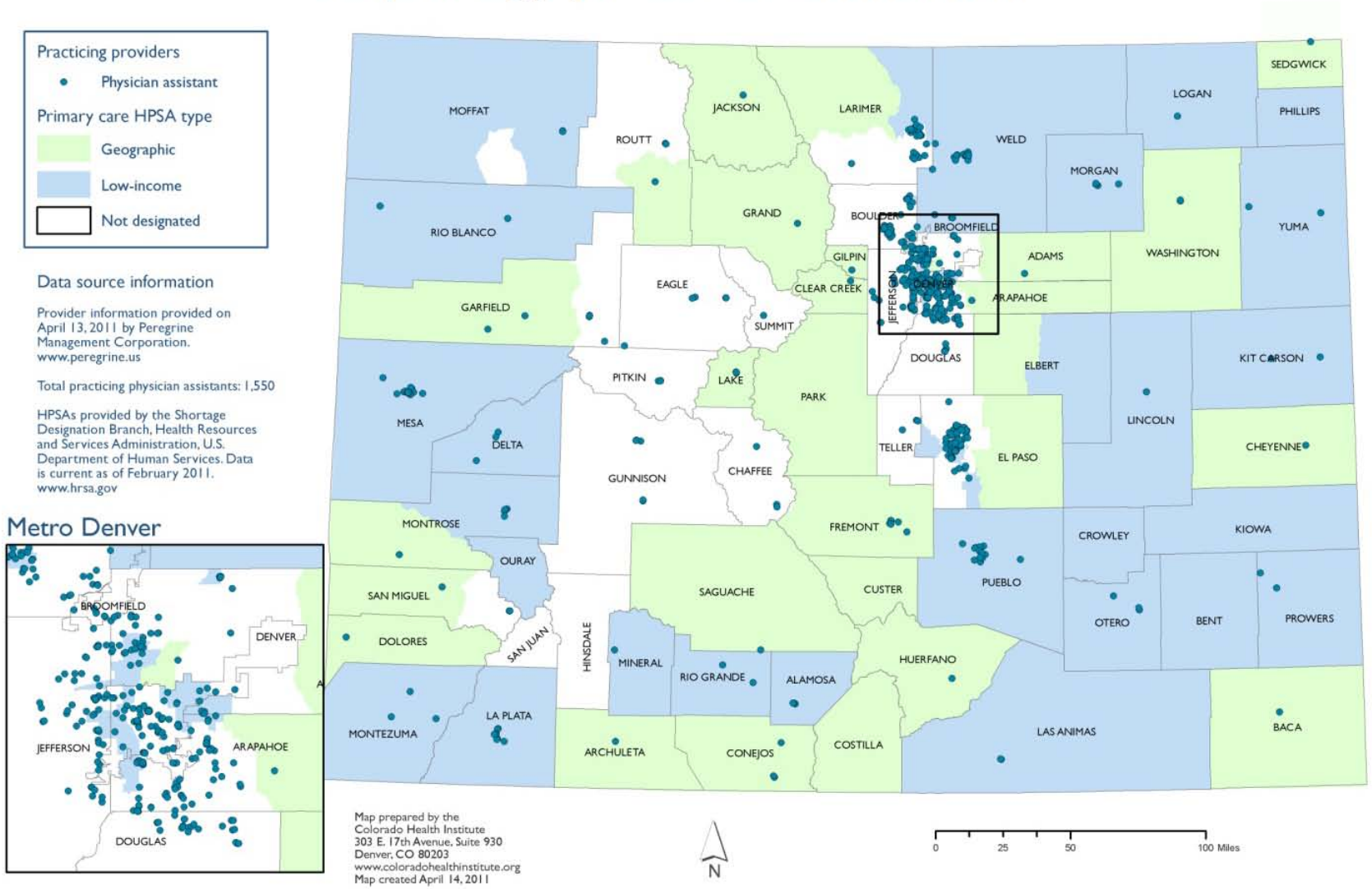
A study analyzing national data from 1997-2003 found a greater proportion of rural health primary care visits were attended by a PA compared to urban patient visits. This finding is particularly important in a state such as Colorado where 47 of the state's 64 counties are designated as rural. This same study also found that individuals who were uninsured were also more likely to visit a PA than individuals with private insurance. [22] This suggests that nationally PAs are important in extending primary care services to lower-income individuals and those living in rural areas, a finding that is commensurate with the original objectives in establishing the profession.

In 1992, the Child Health Associate/Physician Assistant (CHA/PA) training program at the University of Colorado at Denver program incorporated a rural track in which students spend three to five months in a rural clinical placement. According to key informants, the rural track was incorporated into the program in response to studies that found PAs were more accepted by a rural community when they were familiar with the area, lifestyle and culture of local residents. Given this, it is important to note that

26 percent of Colorado's working PAs spent the majority of their childhood in a rural area. It isn't just the students in the rural track who get exposure to rural practice, however. All students in the CHA/PA program are required to complete a rural and an underserved rotation.

Yet in 2011, it is estimated that 16 percent of Colorado's population lives in a rural area, but just over 10 percent of Colorado PAs reported working in a rural area in their primary PA position. Almost no gender difference was found in the choice between an urban versus rural practice.

Primary care Health Professional Shortage Areas (HPSAs) and practicing physician assistants, Colorado, 2011



NOTE: The practicing PA data reflected in the map were compiled by Peregrine Management Corporation using multiple sources. Peregrine has identified fewer practicing PAs than reflected in the weighted survey data.

In 2011, urban counties with the highest percentage of PAs included Denver (15%), Arapahoe (15%), El Paso (11%), Jefferson (9%) and Boulder (7%).[23] Four of these counties have the highest populations statewide and three ranked among the top 10 for highest per-capita income in the state. Nationally, PAs have been more likely than physicians to practice in Health Professional Shortage Areas (HPSAs). This tendency could help Colorado mitigate primary care shortages in parts of the state.

Table 2. Percentage of PAs working in practices not open to certain types of new patients by rural and urban practices

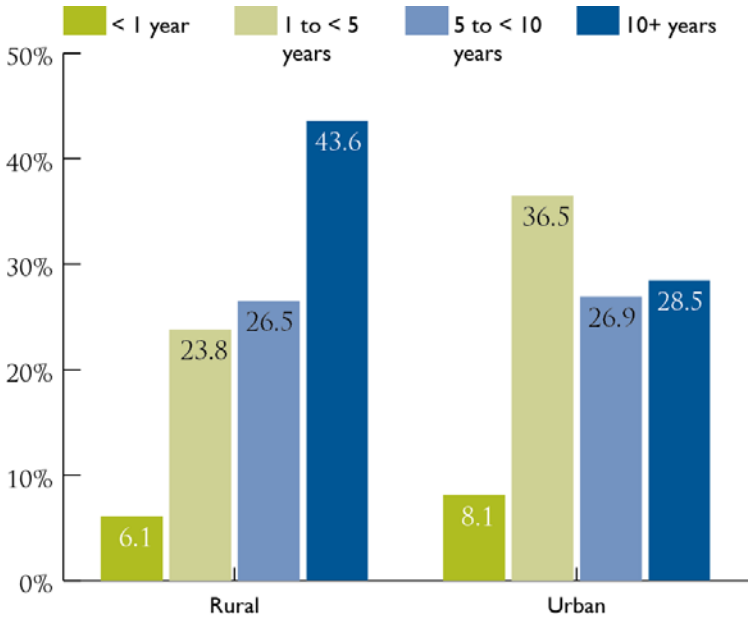
Practice location	No new adults covered by Medicaid	No new children covered by Medicaid	No new pregnant women covered by CHP+	No new children covered by CHP+	No new Medicare beneficiaries
Rural and Urban	31.3%	32.3%	39.4%	31.5%	16.4%
Rural	16.3%	19.3%	30.1%	19.6%	7.6%
Urban	33.5%	34.8%	41.1%	33.9%	17.4%

SOURCE: CHI 2011 Physician Assistant Workforce Survey, Q24, Q28, Q44.

Approximately one-third of the urban practices in which PAs work do not accept new Medicaid and Child Health Plan Plus (CHP+) beneficiaries. Fewer rural practices employing PAs, however, are closed to new beneficiaries of these programs. These data are particularly problematic in light of the large expansions of Medicaid and CHP+ under way in Colorado and soon to be under way nationwide. Using the latest data available, CHI estimates that under the expansions outlined in state and national health reform, 259,000 of the approximately 800,000 Coloradans who were uninsured in 2009 will be eligible for these programs. Ensuring that these individuals have access to care will be particularly important to monitor.

Graph 5 shows that in Colorado, PAs working in a rural location were likely to have worked longer within the same specialty compared to those working in an urban area. Specifically, 44 percent of PAs working in rural locations worked in the same clinical specialty for 10 or more years. On the other hand, of PAs working in an urban practice, only 28 percent had worked in the same primary specialty for 10 years or longer. This suggests that rural PAs are comparatively more experienced in their specialty than their urban colleagues.

Graph 5. Number of years working in current specialty based on practice location of current principal position, Colorado



SOURCE: 2011 CHI Physician Assistant Workforce Survey, Q24, Q28, Q23.

FULL-TIME INCOME

According to the Medical Group Management Association, PA compensation grew by 15 percent from 2001 to 2005, outpacing the income growth rate for family physicians (10%) and pediatricians (11%).[24] The AAPA 2009 National PA Census Report found that the average annual salary for a PA working full time (at least 32 hours per week) in a clinical capacity was $93,105.[25] This represents more than a 35 percent increase from the mean annual salary of $68,757 for a PA practicing full time in 2000. In Colorado, the 2009 average annual salary for PAs practicing full time in a clinical capacity in was nearly $81,650. In Denver, that average was $85,380.[26]

It comes as no surprise that PAs who work in specialty care earn more than PAs who work in primary care. As Table 3 demonstrates, approximately three-fourths of PAs in a specialty practice earned $80,000 or more per year, only 40 percent of primary care PAs had a similar annual income. At each income category at or above $90,000, at least twice as many PA specialty practitioners had incomes in that range compared to primary care PAs.

Table 3. Full-time PA income comparisons: primary care versus specialty care, Colorado

Income	Overall	Primary care	Specialty care
$0 – 50,000	3.1%	5.1%	1.6%
$50,001- 60,000	4.0%	8.0%	1.0%
$60,001- 70,000	11.2%	18.9%	5.6%
$70,001 – 80,000	21.1%	27.4%	17.2%
$80,001 – 90,000	21.7%	18.2%	23.4%
$90,001- 100,000	14.0%	8.3%	17.1%
$100,001 – 110,000	11.5%	6.7%	15.4%
$110,001 – 120,000	4.4%	2.5%	6.0%
$120,001 – 130,000	4.3%	2.5%	5.9%
More than $130,000	4.7%	2.1%	6.6%

NOTE: Rounding of percentages may result in totals less than 100%
SOURCE: 2011 CHI Physician Assistant Workforce Survey Q24, Q29, Q17, Q31

While 39 percent of male PAs earned over $100,000 annually, only 16 percent of females had incomes above $100,000 (Table 4). In part, this difference in income may be due the greater number of years male PAs have been in practice compared to females, the higher percentage of males in specialty care practices and varying number of hours worked.

Table 4. Full-time PA income comparisons: female/male and rural/urban, Colorado

Income	Overall	Female	Male	Rural	Urban
$0 – 50,000	3.1%	4.1%	1.5%	4.8%	2.1%
$50,001- 60,000	4.0%	5.3%	1.9%	1.2%	4.5%
$60,001- 70,000	11.2%	12.9%	8.0%	7.8%	12.3%
$70,001 – 80,000	21.1%	25.4%	14.1%	22.0%	20.5%
$80,001 – 90,000	21.7%	23.2%	19.6%	24.0%	21.8%
$90,001- 100,000	14.0%	12.8%	16.1%	21.0%	12.5%
$100,001 – 110,000	11.5%	9.6%	14.6%	8.7%	12.4%
$110,001 – 120,000	4.4%	2.5%	7.6%	3.9%	4.8%
$120,001 – 130,000	4.3%	1.6%	8.7%	-	4.1%
More than $130,000	4.7%	2.6%	7.9%	3.8%	5.0%

NOTE: Rounding of percentages may result in totals less than 100%
SOURCE: CHI 2011 Physician Assistant Workforce Survey Q24, Q29, Q1, Q28, Q31

PA Job Satisfaction

Overall, PAs express high career satisfaction but only moderate satisfaction with their compensation. Career and compensation satisfaction varied little between PAs practicing in rural and urban settings. In

this respect, PAs closely resemble their advanced practice nursing colleagues, with 80 percent of APNs reporting career satisfaction but dissatisfaction with levels of reimbursement.[27] PAs also expressed high (91%) satisfaction with the level of interaction they had with their supervising physicians.

Table 5. PA Career and compensation satisfaction comparisons: overall and rural/urban, Colorado

Satisfied	Overall	Rural	Urban
Career	80.3%	81.2%	81.0%
Compensation	48.8%	48.6%	49.4%

SOURCE: CHI 2011 Physician Assistant Workforce Survey Q24, Q6, Q7
NOTE: PAs were considered satisfied if they selected 1-3 on a scale of 1-10, with 1 being very satisfied and 10 being very dissatisfied.

Future Employment Plans

Among all working PAs, 13 percent said they planned to leave their principal PA position in the next 12 months. Despite the fact that a greater percentage of rural PAs had been working in their current specialty for 10 or more years, the percentage of rural and urban PAs planning to leave in the next year was similar. Most said neither retirement (87%) nor the desire for a position outside of heath care (95%) were very important reasons for leaving their principal PA position. This is encouraging news for the health care workforce; while PAs may move to a different position, most plan to remain in health care.

PAs and Teaching

Just over one-third of all PAs serve as preceptors to students, while an additional 31 percent are interested in becoming preceptors. Were they needed, Colorado could nearly double the number of PAs engaged in precepting. This has important implications beyond the training of new physician assistants, as PAs have the qualifications to serve as preceptors for advanced practice nursing students, medical students and residents.

Although less than 3 percent of Colorado's PAs were currently faculty members, 23 percent indicated they had an interest in becoming a PA faculty member and an additional 30 percent were undecided. This suggests a reasonably large pool of PAs could be encouraged to become faculty members.

PA Views

The 2011 PA Survey asked PAs their views regarding a number of policy areas.

- Almost all PAs regarded increased access to state and federal loan-forgiveness programs for individuals practicing in underserved areas of Colorado as very important (74%) or somewhat important (24%), despite the fact that 17 percent of PAs had no educational loans and just over 10 percent practiced in a rural area in their principal PA position.

- Nearly 90 percent of PAs said private insurance reimbursement levels should reflect equal pay for equal work.

- The overwhelming majority of PAs (85%) thought that it was very important to revise the Medicare statute so physicians could delegate to PAs the ability to order home health, hospice and skilled nursing facility care, as well as provide hospice care.

- A slightly smaller percentage of PAs (72%) thought that it was very important to offer state- or privately sponsored incentives to establish PAs in practices in medically underserved areas, with off-site physician supervision.

- PAs were almost equally divided on whether it was very important to have adaptable physician supervision requirements for new PAs that would allow supervision requirements to be determined by individual physician supervisors at the practice site level. This finding may reflect differences among PAs in where and how long they have been in practice.

Conclusion

Many of the findings from this survey mirror national trends, including PAs increasing preference for specialty practice and the growing number of PAs with master degree preparation. Nationally, PAs have been found more likely than physicians to practice in Health Professional Shortage Areas (HPSAs). Currently, many rural counties in Colorado are designated as HPSAs. Strategies to encourage PAs to practice in these areas have the potential to alleviate existing shortages and to forestall worsening shortages when health care reform is implemented. The Colorado CHA/PA program is already doing its part by initiating programs to prepare and encourage its students to practice in rural and underserved areas. Colorado may also find it worthwhile to consider some of the incentive programs developed by other states that have been successful in attracting a higher proportion of PAs to practice in rural and underserved communities.

There remains no agreement on the number of specialists and primary care providers needed to avoid primary health care shortages. Similarly, we have yet to determine the optimum ratio of physicians to PAs and APNs that will maximize high quality, cost effective care. In the past, the focus has been on the appropriate balance of specialist versus primary care practitioners; however we now recognize that this approach is too limited in scope. With the implementation of health care reform, concurrent with a rapidly aging population, the need to develop our workforce strategically is of critical importance, if we are to meet the future health care needs of all Coloradans.

FOR MORE INFORMATION

To learn more about Colorado's health professions, see CHI's Center for the Study of the Health Professions at http://www.coloradohealthinstitute.org/workforce.

For more information about CHI's Health Professions Database, visit http://www.coloradohealthinstitute.org/resourceHotissues/hotissuesViewItemFull.aspx?theItemID=25.

Endnotes

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[3] Accrediation Review Commission on Education for the Physician Assistant, Inc. from: http://www.arc-pa.org/acc_standards
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[7] Colorado Revised Statutes (CRS). Sections 12-36-104(1)(a) and 12-36-107.4
[8] C.R.S.
[9] American Academy of Physician Assistants. "National Physician Assistant Census Report: Results from AAPA's 2009 Census." (Retrieve January 20, 2011, from: http://www.aapa.org/images/stories/Data_2009/National_Final_with_Graphics.pdf).
[10] Eighteen surveys were returned to CHI because they could not be forwarded. One recipient was deceased.
[11] Lindsay, S. (2005). "The Feminization of the Physician Assistant Profession," *Women and Health.*
[12] The CHA/PA program at the University of Colorado, Denver has had a consistently higher female enrollment. Personal communication with Anita Glicken, Associate Dean and Director of the CHA/PA program.
[13] U.S. Census Bureau. "State & County QuickFacts." (Retrieved March 28, 2011, from: http://quickfacts.census.gov/qfd/states/08000.html).
[14] Smedley, B, et al. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Board on Health Sciences Policy, Institute of Medicine of the National Academies. pp 573-4.
[15] Smedley.
[16] Jones, E. (2007). "Physician Assistant Education in the United States." *Academic Medicine.* September 82(9):882-887.
[17] Because respondents may have multiple degrees, they may be counted multiple times in the different degree categories. When weighted for non-response bias, 29% of PAs in the U.S. had received a master's degree from a PA school, while 47% had received a bachelor's degree.
[18] One reason for the high percentage of Colorado PAs with master's degrees may be the fact that the CHA/PA program was the first program in the U.S. to offer a master's degree, beginning in the early 1970s. Personal communication with Anita Glicken, Associate Dean and Director of the CHA/PA program.
[19] CHI. (2010). 2010 Advance Practice Nurse Workforce Survey.
[20] Cooper, R. (2007). "New Directions for Nurse Practitioners and Physician Assistants in the Era of Physician Shortages." *Academic Medicine* 82:827–828.
[21] Respondents were asked to identify the specialty they practiced most frequently for their primary clinical employer.
[22] Staton F, et al. (2007). "How PAs Improve Access to Care for the Underserved." *Journal of the American Academy of Physician Assistants* 20(6).
[23] Reported percentages reflect data collected by Medical Quest.
[24] Lowes, R. (2007). "NPs and PAs: A Seller's Market." *Medical Economics* Jan: 51-53.
[25] American Association of Physician Assistants. 2009.

[26] CHI Data Center reporting BLS data at http://datacenter.coloradohealthinstitute.org/data_results.jsp?i=224&rt=11&p=2&c=5

[27] CHI. (2010). 2010 Advanced Practice Nurse Workforce Survey.