

# Primary Care Physician Assistants in Nebraska

Soumitra S. Bhuyan, Marlene Deras, Tamara S. Ritsema, Michael J. Huckabee, and Jim P. Stimpson

## SUMMARY

Over the past several decades, physician assistants (PAs) have become an increasingly important source of primary care in the United States. The current shortage of primary care physicians, and a smaller uninsured population under the federal health care reform law will create an increased demand for primary care providers in Nebraska in the coming years. For this report, we used workforce survey data from the Health Professions Tracking Service (HPTS) at the University of Nebraska Medical Center from 2007-2011 to describe trends and characteristics of Nebraska's primary care PA workforce. We found that the number of primary care PAs in Nebraska grew by 18% between 2007 and 2011, to a total of 327. However, to fill the demand that could be created by an aging population and the enactment of key provisions of the federal health reform law starting in 2014, Nebraska will need at least 350 PAs, which would require a larger growth rate than the state has seen since 2007.

## Introduction

The PA profession was developed in the mid-1960s to expand the reach of primary care physicians and to improve health care access for patients in rural and urban underserved areas across the United States.<sup>1</sup> As of December 2012, 170 schools are training PAs (2 in Nebraska), and more than 84,000 PAs are actively practicing in the United States.<sup>2,3</sup> To qualify to practice in Nebraska, a PA must hold a degree from an accredited PA education program and pass the Physician Assistant National Certifying Examination.<sup>4</sup> Nebraska state regulations allow PAs to provide medical services under the supervision of a physician. PAs perform examinations, diagnostic testing, procedures, treatment, and referrals. Studies have shown that the use of PAs can improve the quality of care, increase patient education and patient satisfaction, and reduce health care costs.<sup>5</sup>

Policymakers and legislators are debating changes to the health care delivery system that are aimed at reducing cost, improving quality, and promoting coordinated and integrated patient care while also providing care for an estimated 32 million more people who will gain health insurance under the Affordable Care Act of 2010 (ACA).<sup>6,7</sup> Increasing the number of PAs in the health care

workforce may be one option to address the expected increase in demand for health services, especially given recent evidence that Nebraska is facing a shortage of primary care physicians.<sup>8</sup> The findings in this brief will be useful to Nebraska's policymakers as they seek to address how best to meet the state's increased demand for health care services.

## Data Source

We used workforce survey data from the HPTS at the University of Nebraska Medical Center for 2007-2011.<sup>9</sup> Annually, HPTS surveys PAs who are currently practicing in Nebraska, PAs newly licensed in Nebraska, and PAs of unknown employment status with a current Nebraska address. Biannually, HPTS surveys physician offices, clinics, and hospitals to confirm and update contact and practitioner information. The HPTS annual verification rate for practicing professionals and facilities combined ranges from 65% to 95%. Data from 2007-2011 were used to assess the trend and distribution of primary care PAs in Nebraska. Annual data from 2011 were used to explore the employment settings and age distribution by practice location. Change in demographic characteristics of the PA workforce between 2007-2011 was also evaluated. The USDA Business and Industry Loan Program

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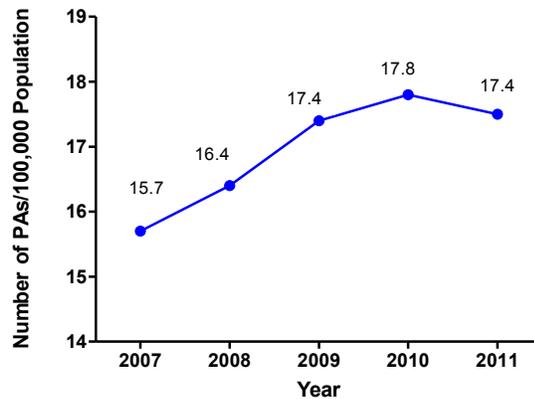
defines Douglas, Lancaster, and Sarpy counties as urban areas. PAs practicing in all other Nebraska counties were classified as rural PAs. Primary care PAs included those who reported practicing in a location specializing in family medicine, internal medicine, obstetrics and gynecology, and pediatrics. Federally employed PAs were excluded from the analysis. Population data were retrieved from the US Census Bureau and a Nebraska State government source.<sup>10,11</sup>

## Results

Exhibit 1 shows the growth in the number of PAs in primary care. Between 2007-2011, the number of PAs increased by 8.9 % per 100,000 population. The slight decrease in primary care PAs per 100,000 population between 2010 and 2011 was due to continued population growth combined with a slower PA growth rate than in previous years.

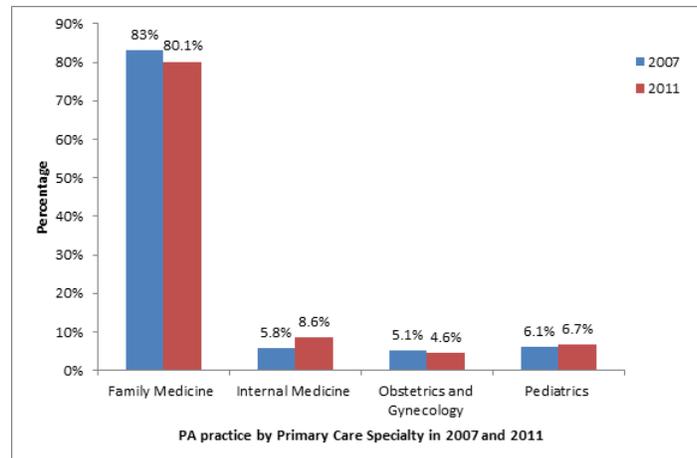
Exhibit 2 shows the distribution of PAs in 4 primary care medical specialty clinics (family medicine, internal medicine, obstetrics/gynecology, and pediatrics) in 2007 and 2011. The vast majority of primary care PAs work for family physicians.

Exhibit 1. Physician assistants per 100,000 population, Nebraska 2007-2011



Data Source: UNMC Health Professions Tracking Service, 2007-2011; US Census Bureau.

Exhibit 2. Physician assistants by primary care specialty, Nebraska 2007 and 2011

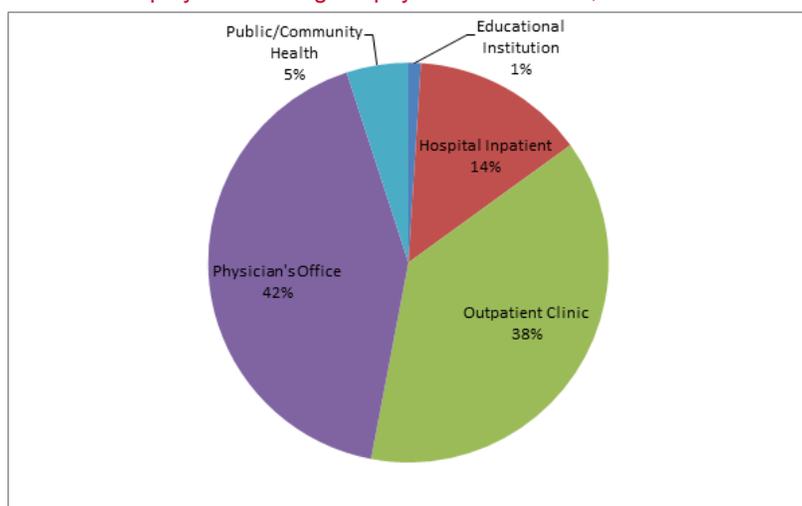


Data Source: UNMC Health Professions Tracking Service, 2007-2011.

The most frequently reported primary care PA work settings included physician offices (42%); outpatient clinics, including emergency and urgent care (38%); hospital inpatient (14%); and public/community health centers (5%) (Exhibit 3). From 2007 to 2011, the number of primary care PAs in family medicine decreased slightly and the number of PAs working in internal medicine increased.

Exhibit 4 shows the change in demographic characteristics of primary care PAs in Nebraska between 2007-2011. PAs were more likely to work in rural counties. About one-fourth of PAs were employed part-time.

Exhibit 3. Employment settings of physician assistants, Nebraska 2011



Data Source: UNMC Health Professions Tracking Service, 2011.

Exhibit 4. Characteristics of Nebraska's primary care physician assistant workforce, 2011, and percent change, 2007-2011

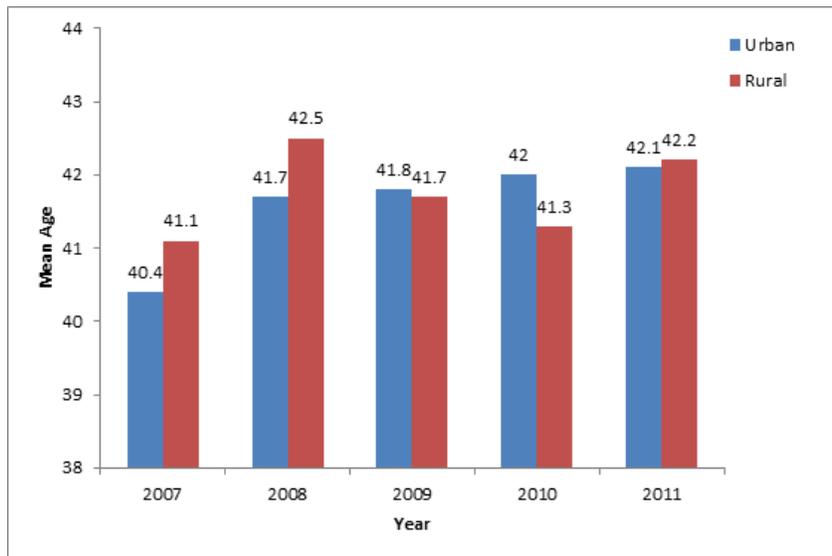
| Characteristic                   | 2011       | % Change 2007-2011 |
|----------------------------------|------------|--------------------|
| <b>Total Number (N)</b>          | 327        | +18.0              |
| <b>Gender N (%)</b>              |            |                    |
| Female                           | 237 (72.4) | +24.7              |
| Male                             | 90 (27.6)  | +0.3               |
| <b>Employment Status N (%)</b>   |            |                    |
| Full-time (≥ 40 hours per week)  | 247 (75.5) | +19.0              |
| Part-time (30-39 hours per week) | 37 (11.3)  | +20.0              |
| Part-time (≤ 29 hours per week)  | 43 (13.1)  | +16.2              |
| <b>Location N (%)</b>            |            |                    |
| Urban                            | 126 (38.5) | +19.1              |
| Rural                            | 201 (61.5) | +18.9              |

Data Source: UNMC Health Professions Tracking Service, 2007-2011.

Exhibit 5 shows the average age distribution of PAs by practice location (urban-rural counties). Between 2007-2008, the average age of primary care PAs was higher in rural counties than in urban counties; however, in 2011, the age gap between PAs in rural and urban settings closed.

Exhibit 6 shows the percent change in age distribution of PAs by rural-urban location. Overall, the growth in the number of PAs was higher in rural counties than in urban counties. The 100% increase for all PAs 65 years of age and older should be interpreted cautiously because there are a small number of PAs in that age range, and small numerical increases translate into large percentage increases.

Exhibit 5. Average age distribution of physician assistants by practice location, Nebraska 2007-2011



Data Source: UNMC Health Professions Tracking Service, 2007-2011.

Exhibit 6. Percent change in the number of physician assistants, by age distribution and by rural-urban counties, Nebraska 2007-2011

| Age of Physician Assistant | Percent Change 2007 to 2011 |       |       |
|----------------------------|-----------------------------|-------|-------|
|                            | Total                       | Urban | Rural |
| All ages                   | +18                         | +16   | +19   |
| 26-40 years                | +11                         | +5    | +15   |
| 41-65 years                | +32                         | +35   | +31   |
| 65+ years                  | +200                        | +100  | +100  |

Data Source: UNMC Health Professions Tracking Service, 2007-2011.

## Discussion and Policy Implications

PAs are poised to help address 2 critical challenges facing the US health care system—a shortage of primary care physicians in rural and underserved areas and the high cost of care.<sup>5</sup> A recent review of the economic value of using PAs found that a PA can perform at least 75% of physician tasks at a cost of 44% of a physician's salary, a PA can perform 83% of primary care visits without direct physician supervision, and the cost of training a PA is approximately 20% that of a physician.<sup>12,13</sup> Another study found that total episode cost for a similar medical condition was less for patients treated by a PA than by a physician.<sup>14</sup> Many organizations, including the American Academy of Family Physicians, favor the team-based approach for delivering care.<sup>15</sup> As Nebraska is facing a rural primary care physician shortage that will be compounded by additional patients entering the system due to the ACA, policymakers should consider the role PAs can play in meeting the increased demand for health care services.

This report outlines the distribution of PAs in primary care throughout Nebraska. Although the growth of the PA primary care workforce from 2007 to 2011 was slower than the growth of the physician and nurse practitioner workforce,<sup>8,16</sup> a higher percentage of primary care PAs work in rural counties. The slight decline in the number of primary care PAs per capita in 2011 has not

been fully examined. Possible explanations for the decline include retirement of primary care PAs, fewer primary care jobs being offered to new graduates, PAs leaving primary care for specialty work, primary care PAs moving out of Nebraska, and population growth. Attrition rates and retirement patterns are not well characterized for PAs, so further research is needed to elucidate these factors and predict supply.

PAs do not specialize as a part of their training, giving them flexibility to change specialties. Policy interventions are needed to increase the number of PA graduates who practice primary care in Nebraska. One study exploring the factors associated with PA practice in Utah in rural areas and in primary care found that PAs from a rural background and male gender are more likely to practice primary care in rural regions.<sup>17</sup> Recruiting PA students from rural and underserved areas may increase the likelihood that those students will return to their rural communities after graduation. Ensuring a strong supply of primary care physicians in rural areas is also essential to maintaining or growing the role of PAs in rural areas, as PAs are typically hired by physicians. Other factors associated with PAs practicing in smaller communities include the desire for a small town community lifestyle, a good relationship with the supervising physician, and the confidence to practice medicine with limited supervision of a physician.<sup>5</sup>

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## Conflict of Interest

None.

## Disclaimer

The views expressed herein are those of the author and do not necessarily reflect the views of collaborating organizations or funders, or of the Regents of the University of Nebraska.

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