

## Issue brief: Addressing NP claims

### Increased utilization of APRNs does not lead to cost savings

Proponents of independent diagnosis and prescriptive authority for APRNs often argue that such a policy change would result in reduced health care spending. However, a 2004 Cochrane review of literature comparing APRN and primary care physician services suggests that this differential may be offset by increased utilization of services and referrals by APRNs.<sup>i</sup> This assertion was confirmed in a study published in the journal *Effective Clinical Practice* that compared utilization rates among physicians, residents, and APRNs.<sup>ii</sup> Researchers showed that utilization of medical services was higher for patients assigned to APRNs than for patients assigned to residents in 14 of 17 utilization measures, and higher in 10 of 17 measures when compared with patients assigned to attending physicians.<sup>7</sup> The patient group assigned to APRNs in the study experienced 13 more hospitalizations annually for each 100 patients and 108 more specialty visits per 100 patients than the patient cohort receiving care from physicians.<sup>7</sup>

In addition, a recent piece in *Health Affairs* on accountable care organizations had this to say about substitution of RNs and APRNs for physicians:

Physician shortfalls might be alleviated by the use of nonphysician providers, such as registered nurses and nurse practitioners. Although there is research supporting such concepts as nurse-led patient-centered medical homes, *it is also true that systematic reviews of such substitution for physicians sometimes reveal negative results, including reductions in productivity, patient volume, and practice income.*<sup>iii</sup>

### Increased use of APRNs is not the solution to access problems

While proponents of independent diagnosis and prescriptive authority for APRNs frequently argue that APRNs can alleviate the lack of access to primary care services, in reality, nurse practitioners across the country are choosing to enter into more lucrative subspecialties rather than remaining in primary care. Since 2004, the number of nurse practitioners entering primary care has dropped by 40 percent. The AHRQ reports that in 2010, just over half (52%) of the approximately 106,073 nurse practitioners in the United States practiced primary care.<sup>iv</sup>

What's more, states that have granted nurse practitioners the authority to independently diagnose and prescribe have not experienced significant migrations of nurse practitioners into underserved areas. The AMA has conducted extensive geographic distribution studies in all 50 states, concluding that nurse practitioners and physicians tend to distribute in the same patterns, regardless of the states' supervisory safeguards on the practice medicine by nurse practitioners.<sup>v</sup> Indeed, AHRQ data on the distribution of health care professionals suggests that, for example, roughly the same percentage of APRNs and family physicians practice in small and large remote areas.<sup>vi</sup>

| Geography             | Primary care |       |                         |                           |                    | U.S. population |
|-----------------------|--------------|-------|-------------------------|---------------------------|--------------------|-----------------|
|                       | NP           | PA    | Family physicians / GPs | General internal medicine | General pediatrics |                 |
| Urban                 | 72.2%        | 75.1% | 77.5%                   | 89.8%                     | 91.2%              | 80%             |
| Large rural           | 11.0%        | 11.7% | 11.1%                   | 6.7%                      | 6.2%               | 10%             |
| Small rural           | 7.7%         | 6.9%  | 7.2%                    | 2.4%                      | 1.8%               | 5%              |
| Remote rural/frontier | 9.1%         | 6.3%  | 4.2%                    | 1.1%                      | 0.8%               | 5%              |

### APRNs are increasingly specialized

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| State       | % NPs in Primary Care | State          | % NPs in Primary Care | State          | % NPs in Primary Care |
|-------------|-----------------------|----------------|-----------------------|----------------|-----------------------|
| Alabama     | 53.6                  | Kentucky       | 58.0                  | North Dakota   | 50.7                  |
| Alaska      | 61.3                  | Louisiana      | 54.1                  | Ohio           | 45.9                  |
| Arizona     | 53.7                  | Maine          | 53.4                  | Oklahoma       | 62.8                  |
| Arkansas    | 57.3                  | Maryland       | 49.8                  | Oregon         | 62.0                  |
| California  | 53.7                  | Massachusetts  | 53.8                  | Pennsylvania   | 47.2                  |
| Colorado    | 50.6                  | Michigan       | 50.9                  | Rhode Island   | 47.5                  |
| Connecticut | 47.1                  | Minnesota      | 63.2                  | South Carolina | 54.7                  |
| Delaware    | 45.0                  | Mississippi    | 61.2                  | South Dakota   | 49.6                  |
| D.C.        | 41.1                  | Missouri       | 52.4                  | Tennessee      | 55.2                  |
| Florida     | 52.1                  | Montana        | 59.7                  | Texas          | 51.7                  |
| Georgia     | 53.6                  | Nebraska       | 47.1                  | Utah           | 45.7                  |
| Hawaii      | 54.9                  | Nevada         | 53.5                  | Vermont        | 64.2                  |
| State       | % NPs in Primary Care | State          | % NPs in Primary Care | State          | % NPs in Primary Care |
| Idaho       | 61.5                  | New Hampshire  | 54.3                  | Virginia       | 51.4                  |
| Illinois    | 53.6                  | New Jersey     | 47.5                  | Washington     | 54.9                  |
| Indiana     | 52.3                  | New Mexico     | 65.4                  | West Virginia  | 54.6                  |
| Iowa        | 55.7                  | New York       | 44.5                  | Wisconsin      | 51.4                  |
| Kansas      | 58.1                  | North Carolina | 54.3                  | Wyoming        | 61.4                  |

## Workforce shortages include both physicians and nurses

While the physician shortage is a reality, so is the nursing shortage. According to the Association of American Medical Colleges, the US will face a shortage of more than 90,000 doctors by 2020, including a shortage of 45,000 primary care physicians.<sup>1</sup> To address this shortage, medical schools have committed to admitting and educating 30 percent more students by 2015. With 12 new medical schools established since 2002 and 6 more in the accreditation pipeline, along with existing schools that are increasing their enrollments, schools are on track to meet the expansion goal by 2016.<sup>x</sup> There is also evidence of increased interest in family medicine, as medical schools report growing numbers of students pursuing careers in family medicine. The number of U.S. medical school graduates matched to first-year residency positions in family medicine increased 14.4%, from 1,156 in 2008 to 1,322 in 2012, according to the National Resident Matching Program.<sup>xi</sup> Schools such as Stanford University School of Medicine and Harvard Medical School reported increased applicants to family medicine residencies in 2012 compared to previous years.<sup>xii</sup>

Physicians are far from the only health care providers in high demand. The US also needs more physician assistants, nurses, and other health care professionals. According to the American Association of Colleges of Nursing, the US nursing shortage is projected to grow to 260,000 registered nurses by 2025.<sup>1</sup>

Further, physicians are among the most productive health care providers. Robert Bowman, a noted expert on the nation's physician workforce, calculated that it would take almost 10 nurse practitioners to equal the primary care productivity of one family physician.<sup>xiii</sup> Allowing APRNs to diagnose and prescribe independently is not the solution to our nation's workforce shortages.

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<sup>i</sup> Laurant M. Substitution of Doctors by Nurses in Primary Care. *Cochrane Database of Systematic Reviews*. 2004; 4.

<sup>ii</sup> Hemani A. A comparison of resource utilization in nurse practitioners and physicians. *Effective Clinical Practice*. 1999;2(6):258-265.

<sup>iii</sup> Burns LR and Pauly MV. [ACOs may have difficulty avoiding the failures of integrated delivery networks of the 1990s](#). *Health Affairs*. 2012; 31(11): 2407-2416. (Emphasis added.) *Citing* Laurant M, Harmsen M, Wollersheim H, et al. The impact of nonphysician clinicians: Do they improve the quality and cost-effectiveness of health care services? *Med Care Res Rev*. 2009; Supplement 66(6): 36S-89S. *Citing* Morgan PA, Shah ND, Kaufman JS, Albanese MA. Impact of physician assistant care on office visit resource use in the United States. *Health Serv Res*. 2008; 43(5): 1906-1922. The findings of Morgan, et al. indicate that physician assistants serve more to extend physician services to patients than to play a complementary role that leads to increased use of health care services. Morgan, et al. concluded that use of PAs as the sole provider for a substantive portion of office-based visits was not associated with increased per-person office visit resource use.

<sup>iv</sup> Agency for Healthcare Research and Quality. [Primary Care Workforce Facts and Stats No. 2](#). AHRQ Pub. No. 12-P001-3-EF. October 2011.

<sup>v</sup> AMA Geographic Mapping Initiative. Resources are on file with the AMA and available upon request.

<sup>vi</sup> AMA Physician Masterfile; AHRQ. Primary Care Workforce Facts and Stats No. 1-3. October 2011. Numbers are adjusted for retirement and represent practicing primary care physicians, NPs, and PAs.

<sup>vii</sup> Bowman RC. Why nurse practitioners are no longer part of the primary care solution. [Ruralmedicineeducation.org](#). Accessed March 19, 2013.

<sup>viii</sup> Agency for Healthcare Research and Quality. Primary Care Workforce Facts and Stats No. 2. AHRQ Pub. No. 12-P001-3-EF. October 2011. [www.ahrq.gov/research/pcwork2.pdf](http://www.ahrq.gov/research/pcwork2.pdf).

<sup>ix</sup> The Centers for Medicare and Medicaid Services maintains the National Provider Identifier (NPI) dataset, which listed approximately 106,000 practicing nurse practitioners in 2010. This estimate represents approximately 10,000 more nurse practitioners than report having NP in their title in a 2008 national survey. To estimate the number of nurse practitioners who are practicing primary care, the Robert Graham Center used the NPI dataset to examine the practice partners of each nurse practitioner. Using a novel imputation method that assigned field of practice (primary care or a subspecialty care)

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to each NP based on the specialty of the professionals they work with, the Center estimated that less than slightly more than half of NPs (52 percent) practiced primary care in 2010.

<sup>x</sup> Kirch DG. [Letter: A Shortage of Doctors](#). September 25, 2012.

<sup>xi</sup> Krupa, C. Will the Physician shortage raise family medicine's profile? *American Medical News*. December 17, 2012.

<sup>xii</sup> *Id.*

<sup>xiii</sup> Bowman R. Measuring primary care: The standard primary care year." [Rural Remote Health](#). 2008; 8(3): 1009.