Projecting the Supply and Demand for Primary Care Practitioners Through 2020 In Brief

Abstract

This study examines the adequacy of the future supply of primary care practitioners (PCPs) to meet the future demand for primary care services. Data on supply and demand for primary care services in 2010, with demand adjusted for physician shortages in Health Professional Shortage Areas (HPSAs), are used as a baseline to project supply and demand in 2020 for physicians, nurse practitioners (NPs), and physician assistants (PAs). The model assumes continuation of key trends in service utilization, practitioner practice patterns, and practitioner production. The model also accounts for aging and population growth and the expansion of coverage under the Affordable Care Act. The impact of the Affordable Care Act is modeled under the assumption that all states expand Medicaid. Therefore, the numbers reported here overestimate demand for primary care services until such time as all states fully implement the Affordable Care Act. Projections of demand for each type of practitioner are based on how they are currently deployed to provide services.

Demand for primary care services is projected to increase through 2020, due largely to aging and population growth and, to a much lesser extent, the expanded insurance coverage implemented under the Affordable Care Act, which includes a number of investments that strengthen the primary care workforce. Consistent with prior studies, this analysis finds that demand for primary care physicians will grow more rapidly than the physician supply, resulting in a projected shortage of approximately 20,400 full-time equivalent (FTE) physicians.

The supply of NPs and PAs, however, is projected to grow rapidly and could mitigate the projected shortage of physicians if NPs and PAs continue to be effectively integrated into the primary care delivery system. For this integration to occur, patient and health system acceptance is necessary, and the dissemination of more effective models of workforce deployment must continue. New models that allow for an increased role of NPs and PAs in the provision of primary care services, such as patient-centered medical homes that emphasize team-based care, have the potential to somewhat alleviate the projected shortage of primary care physicians.

Under a scenario assuming full deployment of available NPs and PAs, the projected shortage of PCPs in 2020 is only 6,400 FTEs. Physicians would remain the dominant provider of primary care services, decreasing from 77 percent of primary care capacity in 2010 to 72 percent in 2020.

Key Findings

Demand for primary care services is projected to grow, mostly due to population aging and growth.

- Aging and population growth are projected to account for 81 percent of the change in demand between 2010 and 2020.

- The remainder of the projected change in demand is associated with the estimated expansion of health insurance coverage under full implementation of the Affordable Care Act, including an assumption that all states expand Medicaid.

Based on current utilization patterns, demand for primary care physicians is projected to grow more rapidly than physician supply.

- The number of primary care physicians is projected to increase from 205,000 FTEs in 2010 to 220,800 FTEs in 2020, an 8-percent increase.

- The total demand for primary care physicians is projected to grow by 28,700, from 212,500 FTEs in 2010 to 241,200 FTEs in 2020, a 14-percent increase.

- Without changes to how primary care is delivered, the growth in primary care physician supply will not be adequate to meet demand in 2020, with a projected shortage of 20,400 physicians. While this deficit is not as large as has been found in prior studies, the projected shortage of primary care physicians is still significant.

The primary care NP and PA workforces are projected to grow far more rapidly than the physician supply.

- The supply of primary care NPs is projected to increase by 30 percent, from 55,400 in 2010 to 72,100 in 2020. The supply of primary care PAs is projected to increase by 58 percent, from 27,700 to 43,900 over the same period.

- Assuming that NPs and PAs provide the same proportion of services in 2020 that they did in 2010, the combined demand for NPs and PAs would increase by only 17 percent. If NPs and PAs are used to provide a greater proportion of primary care services, their projected demand will be higher.

Increased use of NPs and PAs could somewhat alleviate the projected primary care physician shortage if they are effectively integrated into the health care delivery system.

- Under a scenario in which the rapidly growing NP and PA supply can effectively be integrated, the shortage of 20,400 physicians in 2020 could be reduced to 6,400 PCPs.[1]

- If fully utilized, the percent of primary care services provided by NPs and PAs will grow from 23 percent in 2010 to 28 percent in 2020. Physicians would remain the dominant providers of primary care, only decreasing from 77 percent of the primary care services in 2010 to 72 percent in 2020.

Conclusions

The extent to which the national supply of PCPs will come close to meeting the national demand in 2020 will depend on a number of factors. Given the rapid growth in the NP and PA workforce, as well as ongoing efforts to effectively integrate these providers into the primary care delivery system, the projected physician shortage could be somewhat alleviated. Efficient use of NPs and PAs will require patient and health system acceptance and the continued dissemination of more effective models of workforce deployment. There are indications of the acceptance of these practitioners by patients.

The projections do not account for new programs and policies included in the Affordable Care Act. To help strengthen access to the primary care workforce, the Affordable Care Act invests in health workforce training, including: a $1.5 billion investment in National Health Service Corps Scholarship and Loan Repayment programs over five years; a substantial expansion of Community Health Centers; and $230 million over five years to primarily train medical residents in community-based settings. As previously noted, the Affordable Care Act also includes incentives that encourage greater emphasis on initiatives (i.e., Primary Care Medical Homes and Accountable Care Organizations) which are anticipated to result in more effective use of providers in care delivery. Such programs and policies are designed to increase the supply of PCPs and increase the effectiveness of their use through models emphasizing team-based care. Such changes could further integrate NPs and PAs in the provision of primary care services and have the potential to somewhat alleviate the projected shortage of primary care physicians.

Finally, the national averages reported here mask substantial distributional disparities across the United States. It is anticipated that some communities will continue to face significant

[1]In this calculation, primary care NPs and PAs are weighted at 0.75 FTE based on the average number of visits they provide relative to the average for primary care physicians.

shortages. Ensuring patient access to primary care will continue to require programs and policies to address the maldistribution of the primary care workforce.

Given the importance of access to primary care for an effective health care system, the Health Resources and Services Administration (HRSA) will continue to monitor the supply and distribution of PCPs. HRSA also will periodically update these projections as new data and information become available.

Limitations of These Projections

Numerous factors will influence future supply and demand for PCPs. The baseline projections in this report do not account for new programs and policies that may help grow the supply of PCPs or reform the health care delivery system. However, these projections do consider the estimated impact of expanded health insurance coverage associated with full implementation of the Affordable Care Act.

Further, this study does not address provider shortages at subnational levels of geography. National projections represent the average adequacy of supply: some areas have a supply of PCPs well above the national norm or average; other areas have a supply that is inadequate to meet the need for PCPs. Geographic maldistribution of practitioners will mean some local areas will face practitioner shortages.

This study assumes that the supply and demand for PCPs was balanced in 2010 except for the number of physicians that would be needed to de-designate HPSAs. The HPSA shortfall is used as a proxy for the base-year national shortfall since it is the only federal measure of shortage available at this time. Shortages may exist in areas that are not designated as HPSAs or in professions not currently covered by HPSAs (such as NPs and PAs).

Methods

The approach used in this study begins with a baseline for supply and demand based on current service use, population characteristics, trends in the education and training of PCPs, and practice patterns of current PCPs. Consistent with typical projection methodology, it is assumed that supply and demand were in balance in the base year (2010), except for the added demand for primary care physicians needed to de-designate primary care HPSAs. From this baseline, the study considers a variety of potential changes in the future and their possible impact on both supply and demand. Some of these changes can be predicted with reasonable confidence, like the aging of the population. Others, such as increases in productivity, the impact of initiatives to redesign the delivery system, and changes in practice hours and retirement patterns, are less certain.

Defining Primary Care Practitioners (PCPs): The primary care workforce defined in this study includes physicians, NPs, and PAs practicing in general and family medicine, general pediatrics, general internal medicine, and geriatrics. Practitioners in these specialties, who mainly provide care to hospitalized patients—that is, function as hospitalists—are excluded in the estimates of primary care practitioners.

PCP Supply and Demand Baseline Estimates: The baseline estimate of primary care physicians used for this study is 205,000. The estimate for 2010 of NPs active in primary care was 55,400 and for PAs, 27,700. It was assumed demand was equal to the baseline supply in the base year, except demand for physicians was increased by 7,500 above supply based on the additional number of physicians needed to de-designate the current primary care HPSAs.

Future PCP Supply and Demand: To project supply and demand for primary care services and practitioners, the model in this study incorporates historical patterns on health care use and delivery, U.S. Census Bureau population projections, data from federal studies, and information from national associations representing physicians, NPs, PAs, and practitioner training institutions.

The baseline projection of demand used in this study combines effects of changing demographics and, using estimates by the Congressional Budget Office, the expanded medical insurance coverage under the Affordable Care Act. The analysis assumes an expansion of Medicaid coverage by all states in the manner outlined in the Affordable Care Act in 2014. The projection of demand also assumes a constant per capita use of primary care services, for example, a steady visit rate among the older population. It does not account for potential gains in practitioner productivity that might occur with changes in service delivery and technology.

For more information about the data and methods in this brief, see the full report, "Projecting the Supply and Demand of Primary Care Practitioners Through 2020," at http://bhpr.hrsa.gov/healthworkforce/index.html.