

National and Regional Projections of Supply and Demand for Geriatricians: 2013-2025

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The Health Resources and Services Administration (HRSA) and other agencies of the U.S. Department of Health and Human Services are committed to supporting comprehensive, culturally-competent, and high quality health care for older Americans. Achieving such care is dependent on the availability of a well-distributed, well-trained group of providers focused on the needs of our aging population. Geriatricians are medical doctors who specialize in evaluating and managing the unique health care needs and treatment preferences of individuals ages 65 and older. This report presents national and regional projections of the supply of and demand for all geriatricians in the United States. Projections are developed using HRSA's Health Workforce Simulation Model (HWSM). Results presented in this report are projected for 2025, with 2013 data serving as the baseline. HWSM is an integrated microsimulation model that estimates current and future supply and demand for health care workers in multiple professions and care settings.¹ The supply projections assume the continuation of current national patterns of labor supply and service demand and account for new entrants to the workforce as well as employment decisions (e.g., retirement and hours worked) arising from the changing characteristics of the workforce. The demand projections account for changing population size and composition, and increased insurance coverage. The service use pattern and the productivity of a geriatrician are assumed to remain constant over time.

HRSA recently released a report estimating the national and regional supply of and demand for Primary Care Practitioners, which included geriatricians, but included only those practicing in primary care settings.² A small projected surplus of geriatricians (890 Full Time Equivalents--FTEs) was predicted. While this result seems counterintuitive due to the increasing size of the population ages 65 and older, the analysis is consistent with HWSM. Older adults tend to be frail and have more complex health conditions as compared to other segments of the population.

¹ For additional information about HWSM, please see the technical documentation at [Technical Documentation for Health Resources Service Administration's Health Workforce Simulation Model](#)

² "National and Regional Projections of Supply and Demand for Primary Care Practitioners: 2013-2025." The National Center for Health Workforce Analysis. Downloaded from: [National and Regional Projections of Supply and Demand for Primary Care Practitioners: 2013-2025](#)

However, we also know that not all individuals who need the type of care provided by a geriatrician get that care.³

This report represents an alternate scenario to the standard analysis projected by HWSM. One key assumption in the analysis presented here differs from those in the “National and Regional Projections of Supply and Demand for Primary Care Practitioners: 2013-2025” report. In this model supply and demand are not equal at baseline. Here baseline demand is constructed from the current need for (not utilization of) geriatricians.⁴ Scientific literature shows that 30 percent of the 65 year old-plus patient population need care by a geriatrician.³ This translates to a larger demand for geriatricians in the baseline than the current supply. Also, in addition to this one differing key assumption, this analysis includes all geriatricians—those practicing in primary care as well as inpatient settings—whereas the previous report only included those practicing in primary care.

Important limitations for these workforce projections include: an underlying model assumption that health care delivery in the future (projected until 2025) will not change substantially from the way care was delivered in the base year (2013), and that current rates of workforce participation and retirement as well as current patterns of health care utilization will continue similarly into the future. Changes in any of these factors may significantly impact both the supply and demand projections for geriatricians included in this report. Additional discussion of the modeled projections is presented later in this report, together with a discussion of implications suggested by these projections.

Key Findings

Demand for geriatricians is projected to exceed supply, resulting in a national shortage of 26,980 FTEs in 2025.

- The supply of geriatricians is expected to increase from 3,590 FTEs to 6,230 FTEs, a 74 percent increase.

³ Fried LP, and Hall, WJ (2008). Leading on Behalf of an Aging Society. *The Journal of American Geriatrics Society*, 56, 1791-1795

⁴ Both approaches are scientifically valid. However, while provider shortage based on need can be estimated from the Fried and Hall (2008) study, data and information to estimate provider shortage based on current utilization are lacking.

- The demand for geriatricians is projected to increase from 22,940 FTEs to 33,200 FTEs, a 45 percent increase.

All regions⁵ of the U.S. are projected to have a 2025 shortage of geriatricians, although the degree of shortage in each region is variable.

- The Northeast is projected to have a deficit of 2,890 FTE geriatricians by 2025. The West is projected to have a deficit of 14,530 geriatrician FTEs by 2025.

Background

As the U.S. population rapidly ages, access to appropriate care for the elderly and frail is imperative to maintaining the health and quality of life for this large segment of the nation's population. This report discusses future supply and demand for geriatricians—physicians who have trained and practice in the unique health care needs of older people.

The health care needs of older adults are often characterized by their multi-morbidity, use of multiple medications, and the need for more assessment and treatment time, care coordination, and resources than other health care consumers. Most geriatricians are primary care physicians who are board-certified in internal or family medicine and have received additional, advanced training in geriatric medicine. Geriatricians often work in a variety of settings, including primary care and inpatient settings. They also often work as part of a team with other health care providers who may also have advanced training and hold special certifications in aging and geriatrics.⁶

Results

The nation's future supply of and demand for geriatrician services will likely be affected by a host of factors – including population growth and aging, changing birth rates, overall economic conditions, changes in health care delivery, and availability of the health care workforce.

Trending forward, supply projections reflect the estimated number of new entrants to this profession and the number of practitioners lost due to changing work patterns, retirement, and mortality. Demand projections for geriatricians reflect impact associated with changes in

⁵ For list of U.S. regions, see Appendix A

⁶ "Geriatrics." Cleveland Clinic. Downloaded from [Cleveland Clinic: Geriatrics](#).

population demographics. Further, because of the frailty and complexity of the health care needs of older individuals and the body of research literature (which has elucidated that not all older adults who need the type of care provided by a geriatrician get it), the demand model assumes that 30 percent of the population age 65 and older need care by a geriatrician.⁷ All supply and demand projections are reported as full time equivalents (FTEs).

Regional trends in supply and demand were assessed using the U.S. Census Bureau definitions for the Northeast, Midwest, South, and West regions (Appendix A, Exhibit A-1). Baseline supply for the regions was estimated directly from provider databases, while baseline demand was estimated from the regional demographics, health status, health care use, and insurance status, using state national staffing ratios.

Approximately 3,590 FTE geriatricians were active in the nation in 2013. Trending forward to 2025 and assuming new physicians continue to be trained at current levels, approximately 3,350 FTE geriatricians will enter the workforce. However, an estimated 710 FTE geriatricians will be lost due to retirement, mortality, and changing work patterns. As a result, the supply of geriatricians is projected to increase by 2,640 FTEs for a projected supply of 6,230 FTEs by 2025 (Exhibit 1).

The growth and aging of the population contributes heavily to the projected increased demand of 33,200 FTEs in 2025. The increase in demand (10,260 FTEs) will not be met by the modest increase in supply (2,640 FTEs), and will result in a projected deficit of 26,980 FTE geriatricians nationwide by 2025. The projected increase in demand is associated with an increase in the size of the population of older adults. HRSA's HWSM reflects increased insurance coverage associated with Medicaid expansion and insurance marketplaces. With persons 65 years or older in the U.S. generally being eligible for insurance under the Medicare program, rates of insurance coverage were not a considered factor during calculation of these workforce supply and demand projections.

⁷ Fried LP, and Hall, WJ (2008). Leading on Behalf of an Aging Society. *The Journal of American Geriatrics Society*, 56, 1791-1795

Exhibit 1: Baseline and Projected Geriatrician National Supply and Demand, 2013 and 2025

	Geriatrician (FTE)
Supply	
Estimated supply, 2013	3,590
Estimated supply growth, 2013-2025	2,640
<i>New entrants</i>	3,350
<i>Attrition^a</i>	-690
<i>Change in average work hours^b</i>	-20
Projected supply, 2025	6,230
Demand	
Estimated demand, 2013 ^c	22,940
Estimated demand growth, 2013-2025	10,260
<i>Changing demographics impact</i>	10,260
<i>Insurance coverage impact^d</i>	---
Projected demand, 2025	33,200
Projected supply (minus) demand, 2025^e	-26,980

Notes: Numbers may not sum to totals due to rounding. All estimates are rounded to the nearest 10.

^a Includes retirements and mortality.

^b This represents the change in geriatrician full time equivalents resulting from a change in demographic composition of the future workforce and the associated effect on average number of hours worked.

^c The 2013 demand estimates 30 percent of the 65-plus patient population needs care by a geriatrician.

^d The model reflects increased insurance coverage associated with Medicaid expansion and insurance marketplaces.

^e Difference = (supply-demand); a negative difference reflects a shortage (i.e., supply is less than demand), while a positive difference indicates a surplus (i.e., supply is greater than demand).

Regionally, the West will have the most severe geriatrician shortage in 2025, with a deficit of 14,530 FTEs, followed by the South (-6,130 FTEs), the Midwest (-3,430 FTEs), and the Northeast (-2,890 FTEs) (Exhibit 2).

Exhibit 2: Baseline and Projected Geriatrician Supply and Demand by Region, 2013 and 2025

Region	2013 Baseline Estimates (FTEs)			2025 Projections (FTEs)		
	Supply	Demand ^a	Difference ^b	Supply	Demand	Difference ^b
Northeast	1,050	4,920	-3,870	1,490	4,380	-2,890
Midwest	650	4,920	-4,270	1,040	4,470	-3,430
South	1,150	8,050	-6,900	2,150	8,280	-6,130
West	740	5,050	-4,310	1,540	16,070	-14,530

Notes: Numbers may not sum to totals due to rounding. All estimates are rounded to the nearest 10.

^a Baseline supply and demand are not in equilibrium in the regions because regional demands were estimated by prorating national geriatrician demand based on regional population characteristics (e.g., age, sex, household income, insurance status, health status, etc.).

^b Difference = (supply-demand); a negative difference reflects a shortage (i.e., supply is less than demand), while a positive difference indicates a surplus (i.e., supply is greater than demand).

Strengths and Limitations

HWSM, used to develop the supply and demand projections presented here, relies on a microsimulation approach that includes several linked but separate components. Each component incorporates behavioral as well as structural changes impacting workforce supply and demand. The large number of separate, but linked predictive equations in HWSM enhances the accuracy of the results and enables estimations at regional levels. However, several assumptions underlie HWSM. The findings in this report must be interpreted in the context of those assumptions. Regional demand projections account for variations in demographic, economic, and health risk factors between the regions, but because these variations do not account for regional differences in staffing and service delivery, they indicate the number of providers required by the regions to achieve a national level of care. Accounting for these additional factors could result in increases or decreases in the projected adequacy of geriatricians at regional levels.

Further, HWSM assumes that the same proportion of health care providers will choose to practice in geriatrics. HWSM also assumes that current patterns of utilization of geriatricians will continue in the future, and that 30 percent of individuals age 65 and older require care by a geriatrician. As noted above, deviations in any of the parameters of the projections (i.e., changes in hours worked, enrollment patterns, retirement patterns, staffing or service utilization) from the assumed patterns will result in different estimates of future supply and demand for geriatricians.

Conclusions

Improved access to health care for all individuals in the United States requires a well-distributed, competent group of providers to meet the needs of an aging population. The number of older persons in the United States is growing rapidly. Individuals ages 65 and older made up 14.5 percent of the U.S. population in the year 2014, and are expected to be 21.7 percent of the U.S. population by 2040.⁸ In addition, studies have shown that the current emphasis on population health may further increase the size of the population ages 65 and older. The growing elderly population will also contribute to an increase in the incidence and prevalence of illnesses and chronic conditions nationally. Physicians needed to support these additional older adults more than offsets the reduced demand associated with a healthier population because older adults tend to be frail and have more complex health conditions as compared to other segments of the population. Although, the demand impact of population health varies by physician specialty category, the specialty projected to experience the largest increase is geriatricians.⁹ In 2012, the elderly were only 14 percent of the population (the smallest population group) yet accounted for approximately 34 percent of all national health care spending.¹⁰ Per person personal health care spending for the 65 and older population was \$18,988 in 2012, over 5 times higher than spending per child (\$3,552) and 3 times higher than spending per working-age person (\$6,632).

The projections presented here suggest that while the number of geriatricians will grow, that growth will not be sufficient to meet the demand for the services of a geriatrician. The projected future shortages of general internists and general and family practitioners¹¹ will further intensify the demand for geriatricians, suggesting that the nation can use additional geriatricians and other health care providers certified or specializing in geriatrics to provide care for the elderly.

⁸ “Aging Statistics.” The U.S. Administration on Aging. Downloaded from: [A Profile of Older Americans: 2016](#)

⁹ IHS Markit Inc., *The Complexities of Physician Supply and Demand 2017 Update: Projections from 2015 to 2030*. Prepared for the Association of American Medical Colleges. Washington DC: Association of American Medical Colleges. Downloaded from: [IHS Markit Inc., The Complexities of Physician Supply and Demand 2017 Update: Projections from 2015 to 2030](#)

¹⁰ “National Health Expenditure Fact Sheet.” Centers for Medicare and Medicaid Services. Downloaded from: [Centers for Medicare & Medicaid Services](#)

¹¹ “National and Regional Projections of Supply and Demand for Primary Care Practitioners: 2013-2025.” The National Center for Health Workforce Analysis. Downloaded from: [National and Regional Projections of Supply and Demand for Primary Care Practitioners: 2013-2025](#)

Appendix A: U.S. Census Bureau Regions

Exhibit A-1 lists the states associated with each of the U.S. Census Bureau regions. This categorization was used in the regional projections of geriatrician supply and demand presented in this report.

Exhibit A-1: U.S. Census Bureau Regions and Associated States

NORTHEAST	MIDWEST	SOUTH	WEST
Connecticut	Illinois	Alabama	Alaska
Maine	Indiana	Arkansas	Arizona
Massachusetts	Iowa	Delaware	California
New Hampshire	Kansas	District of Columbia	Colorado
New Jersey	Michigan	Florida	Hawaii
New York	Minnesota	Georgia	Idaho
Pennsylvania	Missouri	Kentucky	Montana
Rhode Island	Nebraska	Louisiana	Nevada
Vermont	North Dakota	Maryland	New Mexico
	Ohio	Mississippi	Oregon
	South Dakota	Oklahoma	Utah
	Wisconsin	North Carolina	Washington
		South Carolina	Wyoming
		Tennessee	
		Texas	
		Virginia	
		West Virginia	

Source: U.S. Census Bureau. 2015. [Geographic Terms and Concepts: Census Divisions and Census Regions](#). Accessed 10/1/2015.

About the Model

The results included in this report come from HRSA's Health Workforce Simulation Model (HWSM), an integrated health professions projection model that estimates current and future supply and demand for health care providers.

The supply component of HWSM simulates workforce decisions for each provider type based on each individual's demographics and profession, along with the characteristics of the local or national economy and the labor market. The starting supply plus new additions to the workforce minus attrition provide an end-of-year supply projection, which then becomes the starting supply estimate for the subsequent year. This cycle is repeated through 2025. The basic files that support the supply analyses contain records of geriatric physicians from the AMA Masterfile.

Demand projections for health care services in different care settings are produced by applying regression equations for individuals' health care use on the projected population. The current staffing patterns by care setting are then applied to forecast the future demand for primary care practitioners. The population database used to estimate demand consists of records of individual characteristics of a representative sample of the entire U.S. population derived from the American Community Survey, the National Nursing Home Survey, and the Behavioral Risk Factor Surveillance System. Using the Census Bureau's projected population and the Urban Institute's state-level estimates of the impact of the Affordable Care Act on insurance coverage,¹ HWSM simulates future populations with expected demographic, socioeconomic, health status, health risk and insurance status.

HWSM makes projections at the state level, which are then aggregated to the regional and national levels. A detailed description of HWSM can be found in the accompanying technical documentation available at: [Technical Documentation for Health Resources Service Administration's Health Workforce Simulation Model](#)

¹ Holahan, J. & Blumberg, L. 2010. [How would states be affected by health reform?](#) Timely analysis of immediate health policy issues. Accessed 10/1/2015.

² Holahan, J. 2014. [The launch of the Affordable Care Act in Selected States: Coverage expansion and Uninsurance.](#) Washington, D.C.: The Urban Institute. Accessed 10/1/2015.