



Health Workforce Projections: Physicians and Physician Assistants in Emergency Medicine

March 2017

This fact sheet presents the national supply of and demand for Emergency Medicine physicians and physician assistants (PAs) for 2013 through 2025 using HRSA's Health Workforce Simulation Model (HWSM).¹ While the nuances of modeling supply and demand differ for individual health professions, the basic framework remains the same. HWSM assumes that demand equals supply in the base year.² For supply modeling, the major components (beyond common labor-market factors like unemployment) include characteristics of the existing workforce in a given occupation; new entrants to the workforce (e.g., newly trained workers); and workforce decisions (e.g., retirement and hours worked patterns). For demand modeling, the major components include population demographics, health care use patterns (including the influence of increased insurance coverage), and demand for health care services (translated into requirements for full-time equivalents (FTEs)).

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)³; and current rates of workforce participation and retirement will continue similarly, as well as current patterns of health care utilization. Changes in any of these factors may significantly impact both the supply and demand projections presented in this fact sheet. These projections also do not account for the geographical distribution of providers that may impact access to care in certain communities.

About the National Center for Health Workforce Analysis

The National Center for Health Workforce Analysis informs public and private-sector decision makers on health workforce issues by expanding and improving health workforce data, disseminating workforce data to the public, and improving and updating projections of the supply and demand for health workers.

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¹ This model uses a micro-simulation approach where supply is projected based on the simulation of career choices of individual health workers. Demand for health care services is simulated for a representative sample of the current and future U.S. population based on each person's demographic and socioeconomic characteristics, health-related behavior, and health risk factors that affect their health care utilization patterns. For more information on data and methods, please see <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/simulationmodeldocumentation.pdf>

² Ono T, Lafortune G, Schoenstein M. "Health workforce planning in OECD countries: a review of 26 projection models from 18 countries." *OECD Health Working Papers, No. 62*. France: OECD Publishing; 2013: 8-11.

³ At the time this model was developed 2013 data was most current.

BACKGROUND

Emergency Medicine is the medical specialty dedicated to the diagnosis and treatment of unforeseen illness or injury. The practice of Emergency Medicine includes the initial evaluation, diagnosis, treatment, and disposition of patients requiring expeditious medical, surgical, or psychiatric care. Emergency Medicine may be practiced in a variety of settings including hospital-based and freestanding emergency departments (EDs), and urgent care clinics.⁴ This fact sheet includes emergency care delivered in all three of these settings.

Definitions of an emergency physician vary across specialty organizations. An Institute of Medicine report emphasized the need to consider all definitions to support the supply and distributional issues facing the health care workforce.⁵ The American Academy of Emergency Medicine (AAEM) defines an “emergency physician” as a trained specialist in the field of Emergency Medicine. Such physicians either have completed an accredited training program in Emergency Medicine, or are certified in Emergency Medicine by the American Board of Emergency Medicine (ABEM) or the American Osteopathic Board of Emergency Medicine (AOBEM). In the case of Pediatric Emergency Medicine, the American Board of Pediatrics is also a valid certifying body.^{6,7} The American Academy of Family Physicians supports members with Family Medicine specialization who are able to competently provide emergency care in a variety of settings, particularly in rural and other provider shortage locations.⁸ It is worth mentioning that in the field of Emergency Medicine, residency-training pathways can differ significantly in years and substance. This fact sheet assesses the national supply and demand for practicing emergency physicians and physician assistants across relevant specialties. Emergency Medicine residency trained physicians represent the largest proportion of the emergency physician workforce, especially among recent graduates working in the field, compared to those having other types of specialty training.^{9,10}

PAs typically train as generalists, complete an accredited training program, pass the Physician Assistant National Certifying Examination (PANCE) offered by the National Commission on Certification of Physician Assistants (NCCPA), and then practice Emergency Medicine under the supervision of physicians. Professional certification beyond the PANCE is not required. However, the optional NCCPA’s certificate of added qualifications (CAQ) program allows PAs to achieve professional recognition in some specific areas of medicine, including Emergency Medicine.¹¹

⁴ American College of Emergency Physician 2015 Definition of Emergency Medicine Accessed March 3, 2017 from <https://www.acep.org/Clinical---Practice-Management/Definition-of-Emergency-Medicine/>

⁵ McKenna, M. (2007) Institute of Medicine Ignites New Debate on Who Should Practice Emergency Medicine. *Annals of Emergency Medicine*, 49(5). pgs 614-617

⁶ American College of Emergency Physician Definition of an Emergency Physician 2011 accessed March 3, 2017 from <https://www.acep.org/Clinical---Practice-Management/Definition-of-an-Emergency-Physician/>

⁷ (<http://www.aaem.org/calendar/current-news/the-american-academy-of-emergency-medicine-releases-its-definition-of-emergency-physician>)

⁸ American Academy of Family Physicians Definition of Emergency Medicine Family Physicians accessed November 28, 2017 from www.aafp.org/about/policies/all/emergency-medicine.html

⁹ Stoeber, J. & Champlin, L. (2006). New Policy, Dual Residency Programs Support FPs Who Provide Emergency Care. *Annals of Family Medicine*. 4(4), 375-376. doi:10.1370/afm.605.

¹⁰ Ginde AA, Sullivan AF, Camargo CA Jr. National study of the emergency physician workforce, 2008. *Ann Emerg Med*. 2009 Sep;54(3):349-59.

¹¹ How to Become a PA specialized in Emergency Medicine accessed March, 6 2017 from <http://www.physicianassistantedu.org/emergency-management/>

FINDINGS

Between 2013 and 2025, demand for Emergency Medicine is projected to grow at 9 percent, and physician supply is projected to increase by 18 percent. PA supply in Emergency Medicine is projected to almost double during this period, but the demand is expected to grow only by 9 percent. Consequently, the future adequacy of emergency care providers is likely to be more than sufficient to meet national demand.

Exhibit 1: Estimated Supply and Demand for Physicians and Physician Assistants in Emergency Medicine Specialties in the United States, 2013-2025

	Physicians (FTEs)	Physician Assistants (FTEs)
Supply		
Estimated supply, 2013	39,340	13,800
Estimated supply growth, 2013-2025:	6,900 (18%)	13,090 (95%)
<i>New entrants</i>	21,050	14,950
<i>Attrition^a</i>	-13,960	-1,760
<i>Change in average work hours^b</i>	-190	-100
Projected supply, 2025	46,240	26,890
Demand		
Estimated demand, 2013 ^c	39,340	13,800
Estimated demand growth, 2013-2025:	3,700 (9%)	1,300 (9%)
<i>Changing demographics impact</i>	3,810	1,340
<i>Insurance coverage impact^d</i>	-110	-40
Projected demand, 2025	43,040	15,100
Projected supply (minus) demand, 2025	3,200	11,790

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 provider FTEs resulting from a change in the demographic composition of the future workforce and the associated effect on average number of hours worked.

^c The model assumes that national supply and demand are in approximate equilibrium in 2013.

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

The HWSM's projections estimate that while insurance coverage expansion and the subsequent decreased reliance on EDs for non-emergency care will result in reduced demand for physicians and PAs working in Emergency Medicine, the growth in demand due to the aging of the population will exceed the reduction attributable to insurance coverage. Some factors that could not be accounted for in the HWSM may further increase the future demand for emergency room providers. For example, higher

levels of frailty associated with population aging may increase the visit length requiring additional provider FTEs in EDs and urgent care clinics.¹²

¹² Pallin DJ¹, Allen MB, Espinola JA, Camargo CA Jr, Bohan JS. Population aging and emergency departments: visits will not increase, lengths-of-stay and hospitalizations will. *Health Aff (Millwood)*. 2013 Jul; 32(7): 1306-12. doi: 10.1377/hlthaff.2012.0951.