

## Health Workforce Projections: Pharmacists

### KEY FINDINGS

Between 2012 and 2025:

- The pharmacist supply is projected to grow by 35 percent.
- The demand for pharmacists is projected to grow by 16 percent.

This fact sheet presents the national supply of and demand for pharmacists for 2012 through 2025 using HRSA's Health Workforce Simulation Model (HWSM).<sup>1</sup> While the nuances of modeling supply and demand differ for individual health professions, the basic framework remains the same. The HWSM assumes that demand equals supply in the base year. 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 the Affordable Care Act insurance coverage), and demand for prescription medications (translated into requirements for Full-Time Equivalents). Over the period studied, the model assumes that current national patterns of labor supply and service demand remain unchanged within each demographic group.<sup>2</sup> These projections do not account for the geographical distribution of providers which may impact access to care in certain areas/communities.

### BACKGROUND

Pharmacists are licensed health care providers, with new entrants prepared at the doctoral level.<sup>3</sup> Pharmacists manage the dispensing of medications to patients and provide patient education to ensure their safe use. In many states, pharmacists are also able to provide routine immunizations for patients. In a few states, further training and certification allows for additional advanced practice roles for clinical pharmacists.<sup>4</sup>

### FINDINGS

The supply of pharmacists is projected to increase by 35 percent between 2012 and 2025 (Exhibit 1), reflecting growth over the past decade in the annual number of new pharmacists trained. Demand for pharmacists, which is determined by the number of prescriptions filled, is projected to grow by 16 percent. It is projected that supply will exceed demand in 2025, suggesting that the U.S. will have adequate numbers of pharmacists to meet future demand.

<sup>1</sup> 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 <http://bhwh.hrsa.gov/healthworkforce/supplydemand/simulationmodeldocumentation.pdf>.

<sup>2</sup> 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.

<sup>3</sup> A requirement since 2006, a large percentage of the existing workforce does not hold a PharmD degree. Pharmacy Manpower Project (PMP), Inc. 2009 National Pharmacist Workforce Survey. Alexandria, Virginia, USA: Downloaded from: <http://www.pharmacy.wsu.edu/information/2009.Pharmacist.Workforce.Survey.pdf>

<sup>4</sup> "About Clinical Pharmacists." American College of Clinical Pharmacy. n.d, Downloaded from: <http://www.accp.com/about/clinicalpharmacists.aspx>

## Exhibit 1. Estimated Supply and Demand for Pharmacists in the U.S., 2012 – 2025

	Pharmacists
<b>Supply</b>	
Estimated supply, 2012	264,100
Total supply growth, 2012-2025:	91,200 (35%)
New entrants	160,500
Changing work patterns (e.g., part time to full time hours)	(7,960)
Attrition (e.g., retirements, mortality)	(61,340)
Projected supply, 2025	355,300
<b>Demand</b>	
Estimated demand, 2012	264,100
Total demand growth, 2012-2025:	42,300 (16%)
Changing demographics impact	35,800 (14%)
ACA insurance coverage impact	6,500 (2%)
Projected demand, 2025	306,400
<b>Adequacy of supply, 2025</b>	
Projected supply (minus) projected demand	48,900

Projections from the HWSM account for the implementation of the Affordable Care Act, and the resulting increase in the number of Americans with health insurance and prescription drug coverage.

There are some factors that will affect future demand but could not be accounted for in this forecasting model. For example, changes in reimbursement could incentivize pharmacists to provide extended counseling and other clinical services to patients, requiring more pharmacists to meet patient demand. The eventual elimination of the coverage gap for prescription drugs in Medicare Part D will also have a direct impact on the use of pharmaceutical services as greater access to prescription drug coverage will likely improve medication compliance and increase the demand for pharmacy professionals.<sup>5</sup> Additional demand may also be seen from the increasing integration of clinical pharmacists onto medical teams in settings such as patient-centered medical homes, and into other more advanced clinical roles.<sup>6</sup>

### [About the National Center for Health Workforce Analysis](#)

The National Center for Health Workforce Analysis informs public and private-sector decision-making related to the health workforce by expanding and improving health workforce data, disseminating workforce data to the public, improving and updating projections of the supply and demand for health workers. For more information about the National Center for Health Workforce Analysis please visit our website at <http://bhw.hrsa.gov/healthworkforce/index.html>.

<sup>5</sup> USA Pharmacist, Affordable Care Act Mostly Upheld. 2012. See: [http://www.uspharmacist.com/content/d/pharmacy\\_law/c/36134/](http://www.uspharmacist.com/content/d/pharmacy_law/c/36134/)

<sup>6</sup> Scott MA, Hitch B, Ray L, Colvin G. "Integration of pharmacists into a patient-centered medical home." *Journal of the American Pharmacy Association* (2003). 2011 Mar-Apr; 51(2):161-6.