

Quantifying Arizona's Primary Care Shortage Using Health Professional Shortage Data

Updated December 2024

Arizona needs 493 primary care physician (PCP) full-time equivalents (FTEs) to eliminate its current primary care physician shortage. Access to primary and preventive care can improve health outcomes,¹ lower the cost of health care,² and decrease emergency department visits and hospital readmissions.^{3,4}

This brief summarizes the full-time equivalent (FTE) PCPs by Arizona county and tribal areas. While other health professionals like nurse practitioners and physician assistants provide primary care, the Primary Care Health Professional Shortage Areas (HPSAs) are based on a ratio of primary care physicians to population. The target ratio is 3,500 to 1, or 3,000 to 1 in high need areas.

►► Arizona has PCP shortages in all 15 of its counties.

- Arizona meets just **35.4% of its PCP need**.⁵
- In 2021, Arizona ranked **42nd of 50 states** in total active PCPs at 80.2 per 100,000 population (US is 94.4).⁶
- In 2023, Arizona ranked **32nd** with **256 (US 302) total active physicians** across all specialties per 100,000 population.⁷
- Arizona is **one of the fastest growing states in population**, growing 1.13% per year between 2008 and 2023, compared to median growth across all states of 0.47%.⁸

HPSA “geographic areas, populations, or facilities that have a shortage of primary, dental or mental health care providers.”⁹ These are Health Resources and Services Administration (HRSA) designations used to describe workforces needs, identify eligible locations for funding for National Health Service Corps, Nurse Corps, IHS Loan Repayment and other federal programs.

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Designated Indian Health Service, Tribal Health, and Urban Indian Health Facility Primary Care HPSAs

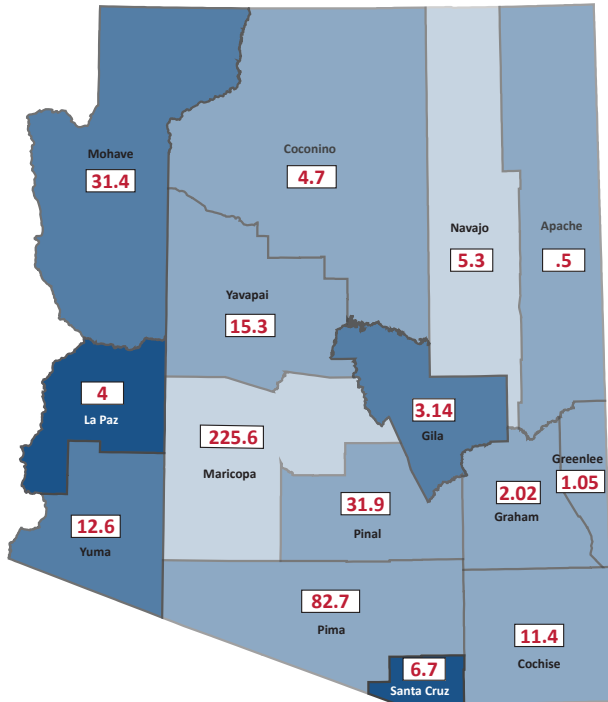
2024 Designated Tribal geographic or Population Primary Care HPSAs

TRIBAL NATION (S)	HIGHEST HPSA SCORE	PCPs SHORT
Colorado River Indian	18	1.4
Fort McDowell Yavapai	10	0.2
Gila River Indian Community	20	2.2
Hualapai Tribe	13	0.5
Navajo Nation & Hopi Tribe	11	2.2
Pascua Yaqui Tribe	19	0.9
Salt River Pima-Maricopa	19	1.4
San Carlos Apache Tribe	21	2.0
Tohono O’Odham Nation	17	0.8
White Mountain Apache Tribe	21	4.1



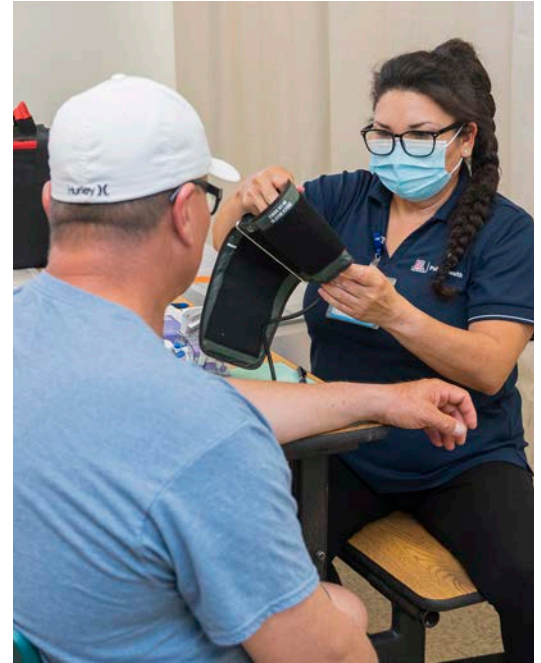
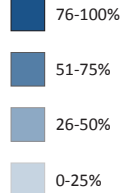
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Percent Living in Primary Care Shortage Areas (HPSAs) and Number of Providers Needed to Eliminate Shortage (2023)



Number of providers needed to eliminate the PCP shortage

Percent population living in a HPSA



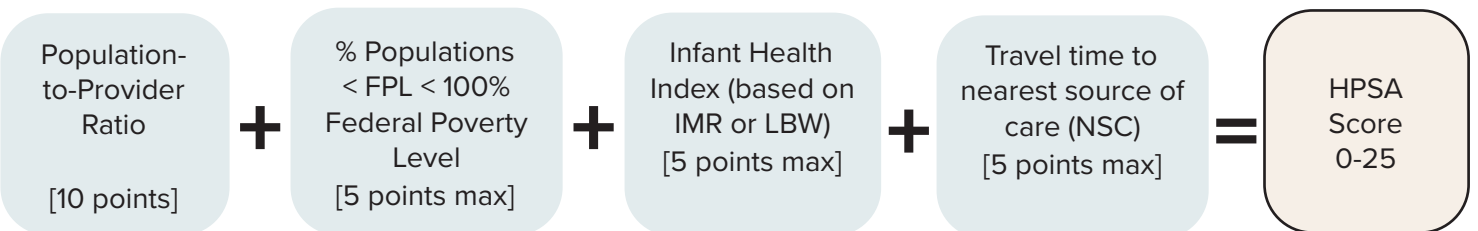
►► Definitions

HPSAs are a geographic area, population, or facility with a shortage of primary care, dental, or mental health providers and services. HPSAs are based on factors illustrated below. In the primary care HPSAs the following primary care physicians are included, “(M.D.) and doctors of osteopathy (D.O.) providing direct patient care who practice principally in one of the four primary care specialties—general or family practice, general internal medicine, pediatrics, and obstetrics and gynecology...”¹⁰

Number of Designated Correctional, Federal Qualified Health Center, FQCH Look A Like, or Rural Health Clinic Facility Primary Care HPSAs

County	FQHCs & FQCH Look A Likes	Rural Health Clinic	Correctional Facility	Correctional Facility FTE Short*
Apache	0	1	0	0.0
Cochise	1	6	1	0.3
Coconino	3	0	0	0.0
Gila	0	6	0	0.0
Graham	0	1	2	1.0
Greenlee	0	0	0	0.0
La Paz	0	3	0	0.0
Maricopa	9	0	4	10.8
Mohave	1	0	0	0.0
Navajo	0	0	1	0.9
Pima	4	0	2	4.1
Pinal	2	2	5	20.1
Santa Cruz	1	0	0	0.0
Yavapai	2	0	0	0.0
Yuma	1	1	1	2.2
Total	24	20	16	39.3

►► Primary Care HPSA Score Formula



►►Brief Methods

This brief uses HPSA data from the HRSA. The HPSA data files can be found here <https://data.hrsa.gov/data/download> and an interactive report can be found here <https://data.hrsa.gov/tools/shortage-area/hpsa-find> on the HPSA Find site. HRSA includes data on designated and proposed for withdrawal HPSAs to estimate the total PCP FTEs needed to eliminate the shortage designation. This brief includes only designated HPSAs. The percentage of the population living in a HPSA area was calculated by adding the population reported in each HPSA type (geographic, geographic high needs, and population) and then dividing by the total population in the county (from the U.S. Census American Community Survey, 5-yr estimates 2022). Some HPSAs span county boundaries, we assigned HPSAs to a single “majority” county based on population in the sub-components that composed the largest portion of the population in the HPSA.

References

1. Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. *The milbank quarterly*, 83(3), 457-502.
2. Friedberg, M. W., Hussey, P. S., & Schneider, E. C. (2010). Primary care: a critical review of the evidence on quality and costs of health care. *Health Affairs*, 29(5), 766-772.
3. Capp, R., Misky, G. J., Lindrooth, R. C., Honigman, B., Logan, H., Hardy, R., ... & Wiler, J. L. (2017). Coordination program reduced acute care use and increased primary care visits among frequent emergency care users. *Health Affairs*, 36(10), 1705-1711.
4. National Research Council, & Committee on Population. (2013). *US health in international perspective: Shorter lives, poorer health*.
5. Health Resources and Services Administration (HRSA). (2024). Designated Health Professional Shortage Areas Statistics. Second Quarter of Fiscal Year 2024. Retrieved from: <https://data.hrsa.gov/default/generatehpsaquarterlyreport>
6. Association of American Medical Colleges. (2022). State Physician Workforce Data Report 2021. Retrieved from: <https://www.aamc.org/data-reports/workforce/report/state-physician-workforce-data-report>
7. Association of American Medical Colleges. (2023). U.S. Physician Workforce Data Dashboard. Retrieved from: <https://www.aamc.org/data-reports/workforce/report/state-physician-workforce-data-report>
8. Pew Charitable Trusts. (2024). Population Growth Sputters in Midwestern, Eastern States. Retrieved from: https://www.pewtrusts.org/en/research-and-analysis/data-visualizations/2014/fiscal-50/population-change?pop_map_data_picker=ltg
9. Health Resources and Services Administration. (2023). What is Shortage Designation. Retrieved from: <https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation>
10. Designation of Health Professional(s) Shortage areas. 42 C.F.R part 5. Retrieved from: <https://www.ecfr.gov/current/title-42/chapter-I/subchapter-A/part-5>

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