

# Graduate Medical Education (GME) in Arizona

## Policy Brief

### ►► Key Points

Arizona is the 14<sup>th</sup> most populous state<sup>1</sup> yet ranks just 37<sup>th</sup> in resident (GME) physicians at 28.5 FTE per 100,000 pop. compared to the U.S. at 43.8.<sup>2</sup>

### + 1000 GME FTEs Needed Now

While the number of residency positions in Arizona increased between 2010 and 2020, Arizona would need to increase the resident physician workforce by about **1,000 positions** to attain a rank of 15<sup>th</sup> by ratio of resident physicians per 100,000 population.

### ►► Arizona Population Overview<sup>1</sup>

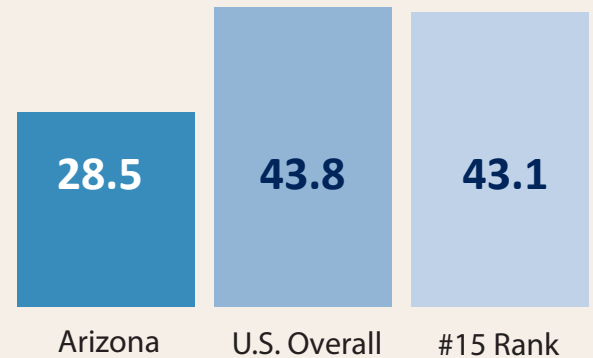
- Arizona's population in 2022 was 7.36 million, the 14<sup>th</sup> most populous state.
- Since 2000, Arizona's population increased by 2.1 million, (41%) more than twice the U.S. pop. growth overall (17.6%).
- 13 of Arizona's 15 counties grew in pop., the largest increases in Maricopa, Pima and Pinal counties.
- The largest pop. increase was for people 65 and older.

Population growth, an aging population, and an increase in the number of insured Arizonans contribute to rising demand for health care services. Yet, in primary care, where prevention and management of chronic conditions are prioritized, Arizona meets just 35.4% of its primary care physician (PCP) needs.<sup>3</sup> Arizona needs an estimated 493 full time equivalents (FTE) PCPs to eliminate Arizona's 212 health professional shortage areas (HSPAs).<sup>3</sup> Despite the growing need for primary care physicians, the number of Arizona's PCP residency slots decreased by 52 from 536 to 484 from 2016 to 2019.<sup>4</sup> See Appendix A.

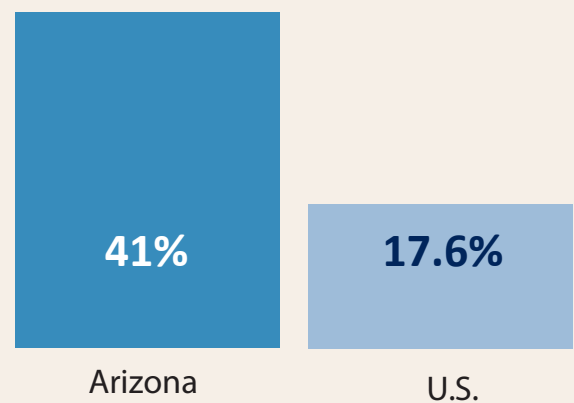
### ►► Physician Pathways & Training Opportunities

Investing in pathway programs, education and training capacity will bolster Arizona's physician workforce.<sup>5</sup> Having high school students learn about health careers, providing financial support for Arizonan students entering medical (MD) education programs and expanding graduate medical education (GME) residency training slots for graduates will help grow and retain the physician workforce needed to keep pace with Arizona's population growth.

Resident (GME) Physicians Full Time Equivalents (FTEs) per 100,000 pop., 2021



Percent Population Growth, 2000-2020



## ►►Graduate Medical Education (GME)

Nearly half of Arizona’s licensed, active physicians completed their residency training in Arizona. UArizona GME programs train 47% of the GME resident FTEs in the state.<sup>6</sup>

GME training is subsidized by federal Medicare and state-federal Medicaid funding.

Arizona has 14 accredited GME training institutions. In 2022, they offered 587 first year residency positions and filled 553 (95%) of available positions.<sup>6</sup>

### ►►University of Arizona GME

- Three of the 14 accredited Arizona GME institutions with residency programs are part of the UArizona: Banner University Medical Center (BUMC) Tucson, Phoenix, and South (Kino).
- UArizona programs comprised 44% of all first year residency GME positions (256 of 587) in 2022.<sup>6</sup>
- UArizona GME programs comprise 47% (1,031 of 2,184) of the total (all years) resident GME FTEs in 2023.<sup>7</sup>

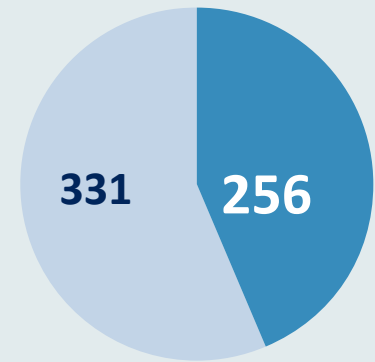
While Arizona is the 14<sup>th</sup> most populous state,<sup>1</sup> Arizona ranks just 37<sup>th</sup> by ratio of resident physicians per 100,000 population.<sup>2</sup> In 2020, Arizona had 2,071 resident physicians, that was 28.5 resident physicians per 100,000 population in ACGME accredited residency programs.<sup>2</sup>

To achieve a ratio of 43.1 residents per 100,000 (that is, to attain a rank of 15<sup>th</sup> by ratio of resident physicians per 100,000 population) for Arizona’s current population (7,359,197),<sup>8</sup> Arizona would need a total 3,172 residents - an increase of 1,101 over our current GME FTEs.

Increasing GME positions in Arizona to account for population growth, expanded health insurance coverage and increasing enrollment in undergraduate medical education (MD, DO) will strengthen pathways to practice for the physician workforce in Arizona.

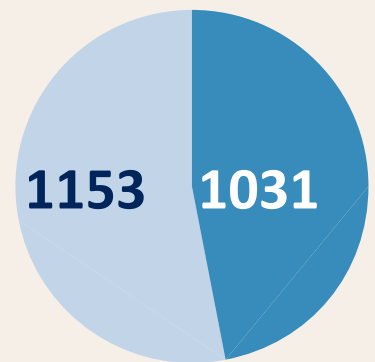
GME is subsidized by federal funds including by Medicare, Medicaid, Veterans Administration (VA), Department of Defense, Health Resources and Services Administration (HRSA) for the Teaching Health Center GME, Children’s Hospital GME and other sources.

587 First Year GME Positions, 2022<sup>6</sup>



■ UArizona Yr1 GME Positions (44%)  
■ GME Positions Other Institutions

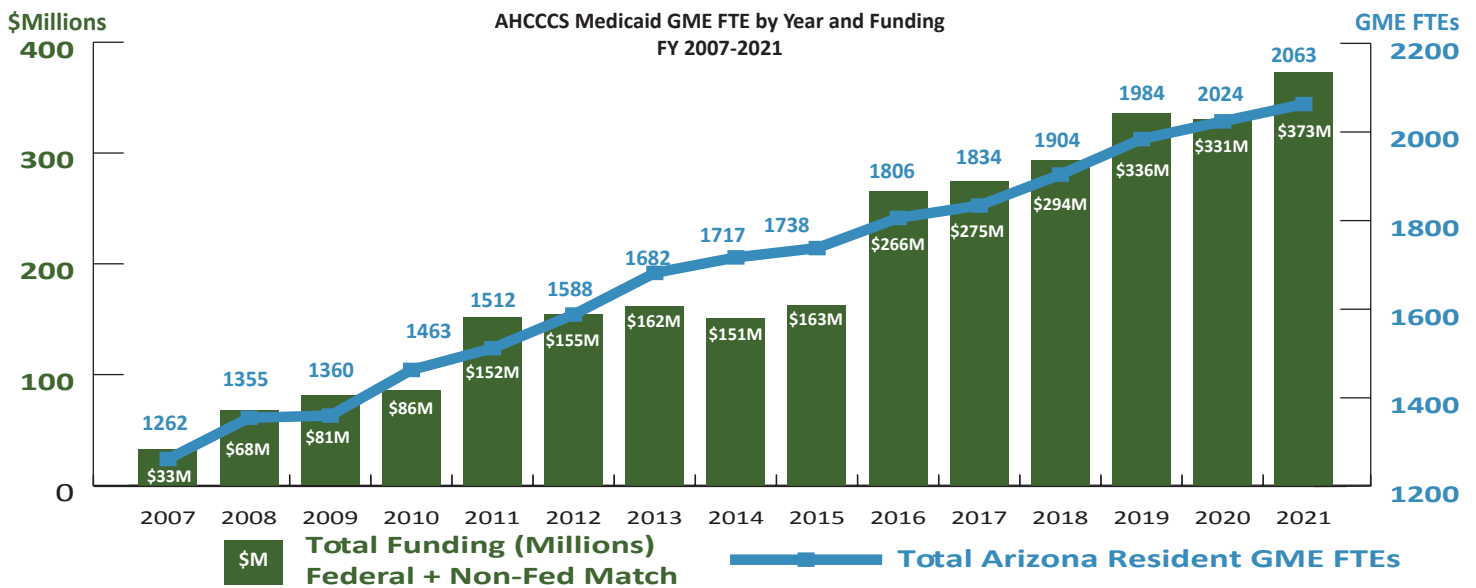
2,184 GME Total Positions (All Yrs), 2023<sup>7</sup>



■ UArizona GME Total Positions (47%)  
■ GME Total at Other Institutions

The number of residency slots subsidized by Medicare was capped in 1996,<sup>9</sup> but there are no caps if a new program is established in a HPSA. Medicare covers a portion of the direct GME costs of a residency program (DGME) - resident stipends, supervising physician salaries and administrative costs - and indirect medical education costs (IME) intended to defray the higher costs in teaching hospitals compared to other hospitals. In Arizona, IME subsidies represent 76% of the total Medicare GME subsidy. The total GME formula is complicated, reimbursed in per resident amounts to qualifying teaching hospitals.<sup>10</sup>

There is no cap on Medicaid GME slots in Arizona, although a non-federal match is necessary to draw the federal Medicaid GME dollars. The 2023 Federal Medical Assistance Percentage (FMAP) for Arizona is 75.76%.<sup>11</sup> Thus the 24.24% non-federal (local) match required in Arizona is covered by various sources depending on the residency - from the teaching hospital, county, and/or the State of Arizona. Another way to look at it is that for each one dollar in local match, the federal allocation is \$3.13. The figure below shows the growth in Medicaid GME subsidies and residency positions since 2007.<sup>12</sup>



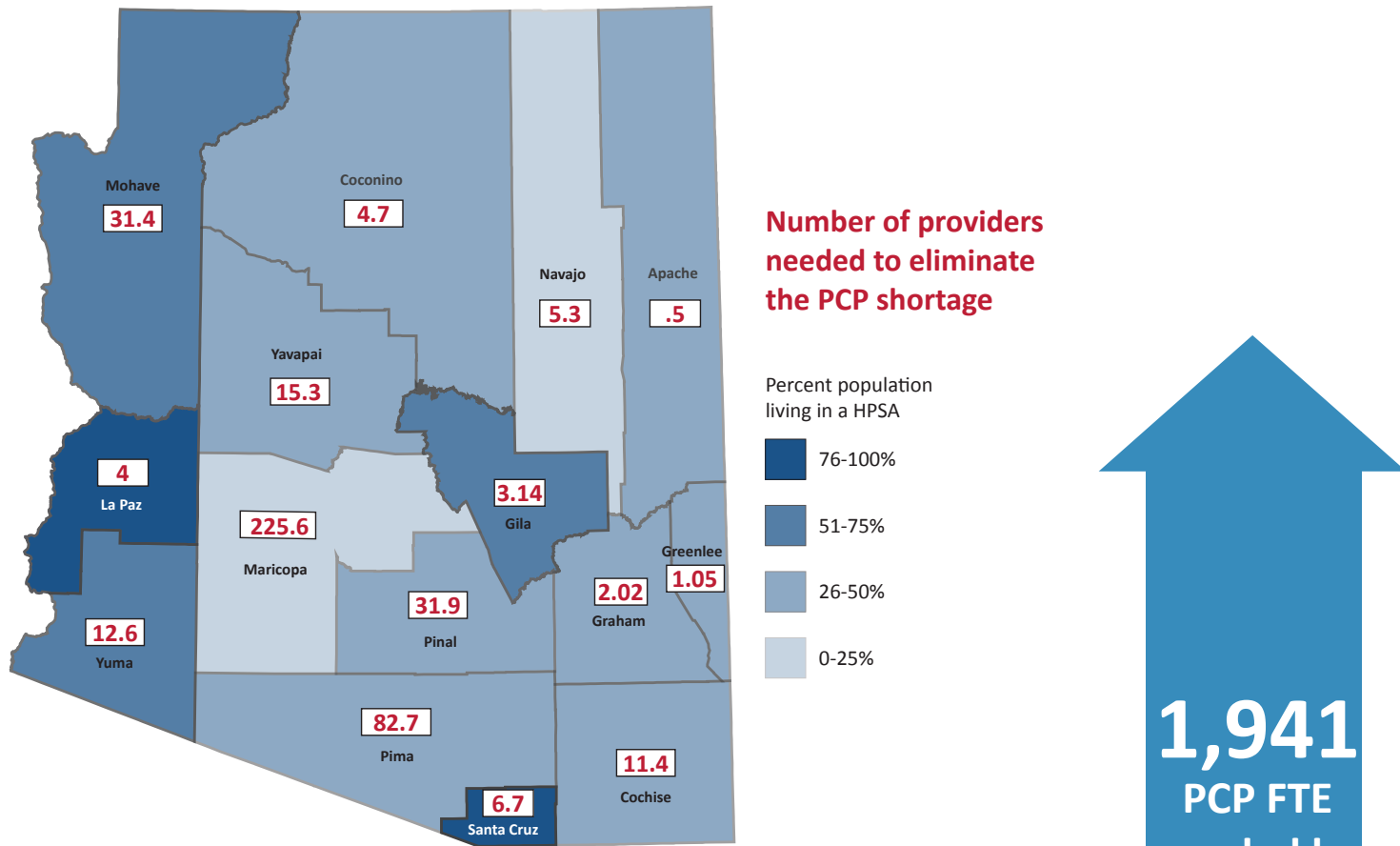
Obtaining Medicare and Medicaid direct (DGME) and indirect (IME) subsidies for graduate medical education, can result in a break even or a net positive margin per resident. However these revenues do not begin until a year after the residency program has begun.

There are several federal grants to help hospitals without residency programs obtain the technical assistance and fiscal support necessary to start a new residency program in high need specialties, until the Medicaid and Medicare subsidy revenues begin. These are competitive grants, insufficient for Arizona to expand the number of resident GME positions needed for its growing population. A current grant opportunity as part of the 2021 Consolidated Appropriations Act:

*“The application cycle for the 200 FY 2024 slots is currently open and will remain open until March 31, 2023. To be eligible for these additional FTE resident cap slots, a hospital must qualify in at least one of the following four categories: (1) hospitals in rural areas (or treated as being located in a rural area under the law), (2) hospitals training a number of residents in excess of their GME cap, (3) hospitals in states with new medical schools or branch campuses, and (4) hospitals that serve areas designated as health professional shortage areas (HPSAs).”<sup>13</sup>*

## There are PCP FTE shortages in all 15 counties

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



**493 Total PCP FTE needed**

**Designated HPSA**

**493  
PCP FTE  
needed**

**1,941  
PCP FTE  
needed by  
2030**

\*HRSA HPSA updated data included 12/2024  
[https://crh.arizona.edu/sites/default/files/2024-12/241210\\_PCHPSA\\_Brief.pdf](https://crh.arizona.edu/sites/default/files/2024-12/241210_PCHPSA_Brief.pdf)

## References

1. USAFacts. Our Changing Population: Arizona. July 2022. Accessed February 2, 2023. <https://usafacts.org/data/topics/people-society/population-and-demographics/our-changing-population/state/arizona?endDate=2021-01-01&startDate=2000-01-01>
2. Association of American Medical Colleges (AAMC). 2022. State Physician Workforce Data Report 2021. Accessed February 9, 2023. <https://store.aamc.org/2021-state-physician-workforce-data-report.html>
3. 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>
4. Health Resources and Services Administration (HRSA). Area Health Resources File. ND. Accessed February 9, 2023. <https://data.hrsa.gov/topics/health-workforce/ahrf>
5. Arizona Area Health Educations Centers (AHEC). Arizona Area Health Education Centers Annual Report 2022. 2022. Accessed February 9, 2023. [https://azahec.uahs.arizona.edu/sites/default/files/ahec-annual-report-2022\\_0.pdf](https://azahec.uahs.arizona.edu/sites/default/files/ahec-annual-report-2022_0.pdf)
6. The National Residency Match® Program. NRMP Program Results 2018-2022 Main Residency Match®. 2022. Accessed February 9, 2023. <https://www.nrmp.org/wp-content/uploads/2022/06/Program-Results-2018-2022.pdf>
7. Arizona Medical Board. Arizona Medical Board MD Resident List. 2023. Accessed February 9, 2023. <https://www.azmd.gov/Resident/Resident>
8. U.S. Census Bureau QuickFacts: Arizona. 2022. Accessed February 2, 2023. <https://www.census.gov/quick-facts/AZ>
9. Cromwell J, Adamache W, Drozd E. BBA impacts on hospital residents, finances, and Medicare subsidies. *Health Care Financ Rev.* 2006;28(1).
10. Congressional Research Service. Medicare Graduate Medical Education Payments: An Overview. 2022. Accessed February 9, 2023. <https://crsreports.congress.gov/product/pdf/IF/IF10960>
11. Kaiser Family Foundation Federal Medical Assistance Percentage (FMAP) for Medicaid and Multiplier. Accessed February 9, 2023. <https://www.kff.org/medicaid/state-indicator/federal-matching-rate-and-multiplier/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>
12. Arizona Health Care Cost Containment System (AHCCCS). July 2022 AHCCCS GME Report. 2022. Accessed February 9, 2023. [https://www.azahcccs.gov/shared/Downloads/Reporting/2022/July2022AHCCCS\\_GME\\_Report.pdf](https://www.azahcccs.gov/shared/Downloads/Reporting/2022/July2022AHCCCS_GME_Report.pdf)
13. Centers for Medicare and Medicaid Services (CMS). CMS Awards 200 New Medicare-funded Residency Slots to Hospitals Serving Underserved Communities. January 9, 2023. Accessed February 9, 2023. <https://www.cms.gov/newsroom/press-releases/cms-awards-200-new-medicare-funded-residency-slots-hospitals-serving-underserved-communities>

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