

# Quantifying Arizona's Dental Health Workforce Shortage Using Health Professional Shortage Area (HPSA) Data

Arizona needs between **341** and **485** dentist full-time equivalent (FTE) to eliminate the current dental health care shortage.<sup>1</sup> County Health Rankings states “untreated dental disease can lead to serious health effects including pain, infection, and tooth loss.”<sup>2</sup> Oral health is a critical component of overall health.<sup>3</sup> Chronic oral disease can lead to “increased risk for chronic conditions, including heart disease and diabetes, lost work/school hours and lost wages, and reduced quality of life, throughout the lifespan.”<sup>3</sup> For all income groups, “cost is the primary reason for not visiting the dentist.”<sup>3</sup> In addition, “inconvenient location or time” and “trouble finding a dentist” are also among the top reasons for not visiting the dentist.<sup>3</sup>

This brief summarizes the full-time equivalent (FTE) shortage for dentists by county and tribal area in Arizona. The dental health, Health Professional Shortage Areas (HPSAs) in Arizona are based on a ratio of dentists to population. The target ratio for dentists to population is 1 to 5,000 or 1 to 4,000 in high need areas. The target ratio for correctional facilities is 1 to 1,500. <sup>1</sup>

## ►► Arizona has dentist FTE shortages in all counties.

- Arizona meets just **33.67%** of its dental health need.<sup>1</sup>
- The ratio of dentists to population in the U.S. is 1: 1,360, in Arizona the ratio is 1: 1,510. <sup>2</sup>
- Of the fifty states and the District of Columbia, Arizona ranks **34th** in active dentists per population.<sup>4</sup>
- Arizona is one of the fastest growing states in population, growing **1.13%** between 2010 and 2020, compared to median growth of 0.55%.<sup>5</sup>

HPSAs are “geographic areas, populations, or facilities that have a shortage of primary, dental or mental health care providers.”<sup>6</sup> These are Health Resources and Services Administration (HRSA) designations used to describe workforce needs, identify eligible locations 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** Dental Health HPSAs

AZ Tribal Nations Dental Shortage (2023)		
TRIBAL NATION	HIGHEST HPSA SCORE	#DENTIST FTE SHORT*
Colorado River Indian	13	0.01
Fort McDowell Yavapai	11	0.21
Gila River	23	1.85
Hualapai	13	0.36
Navajo Nation & Hopi	17	9.45
Pascua Yaqui	19	0.70
Salt River Pima-Maricopa	22	1.17
San Carlos Apache	15	0.06
Tohono O’Odham	23	2.23
White Mountain Apache	24	3.61

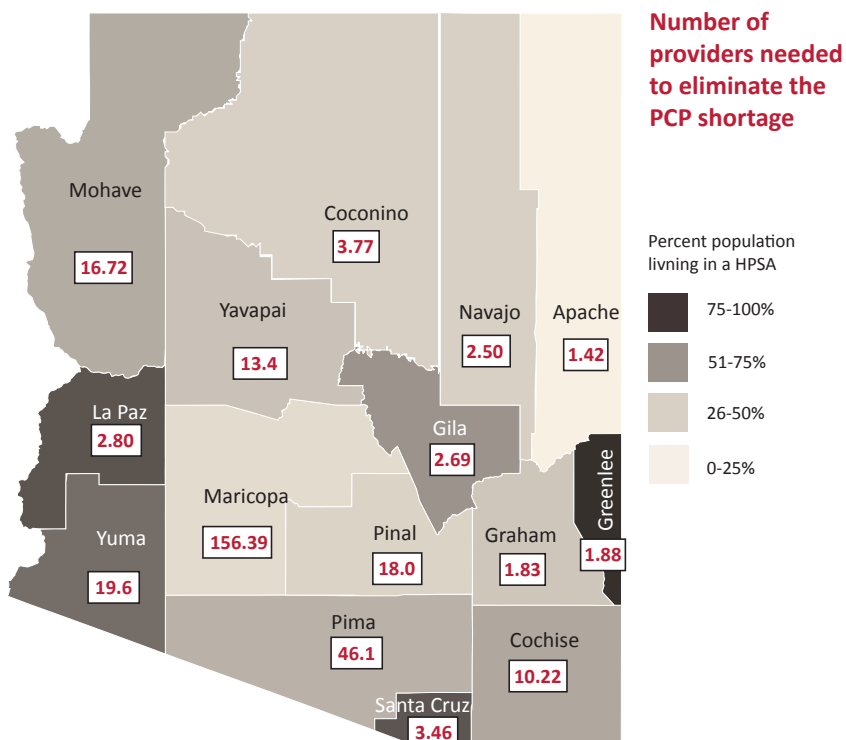
## Number of Designated Correctional, Federal Qualified Health Center, FQCH Look A Like, or Rural Health Clinic Facility Dental Health Care HPSAs<sup>7</sup>

County	FQHCs & FQHC Look A Likes	Rural Health Clinic	Correctional Facility	Correctional Facility FTE Short*
Apache	0	1	0	
Cochise	1	6	0	
Coconino	3	0	0	
Gila	0	6	0	
Graham	0	1	2	1.1
Greenlee	0	0	0	
La Paz	0	4	0	
Maricopa	9	1	2	6.5
Mohave	1	0	0	
Navajo	0	0	0	
Pima	4	0	1	2.1
Pinal	2	2	3	10.4
Santa Cruz	1	0	0	
Yavapai	2	0	0	
Yuma	1	2	1	0.66
<b>Total</b>	<b>24</b>	<b>23</b>	<b>9</b>	<b>20.8</b>

For tables and maps, data include designated HPSAs only.  
\*FTE needed to eliminate the HPSA



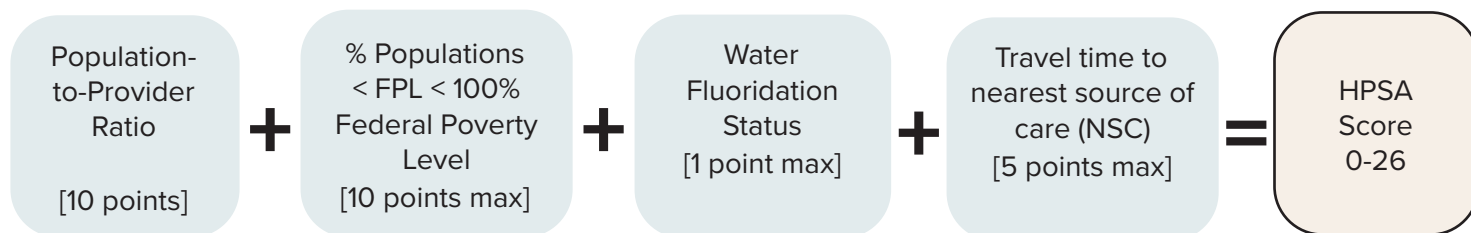
## Percent Living in Primary Care Shortage Areas (HPSAs) and Number of Providers Needed to Eliminate Shortage (2023)



### ►► 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.<sup>7,8</sup>

### ►► Dental 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, proposed for withdrawal, and withdrawn HPSAs. HRSA includes data on designated and proposed for withdrawal HPSAs to estimate the total FTEs needed to eliminate the shortage designation. This brief includes a more conservative estimate of the shortage (341) by subtracting the FTEs in dental health HPSAs proposed for withdrawal (485). Only designated HPSAs are counted by county and tribal area. 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, 2020). Some HPSAs span county boundaries, we assigned HPSAs to a single “majority” county based on land area that composed the majority of the land area in the HPSA.

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## References

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*Suggested Citation: Koch, B, Drake, C, Garn, A. and Derksen, D. 2024. Describing The Dental Health Workforce Shortage in Arizona.*



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