

Issue: AZ Rural Health Care

## Rural Arizona and Health Care

### The Problem

The inequities in the health of rural versus urban citizens in Arizona are profound. Providing fundamental health care is an investment in every citizen so they can thrive, care for their families, have opportunities for education and for good paying jobs. Access to routine, quality health care not only helps prevent the development of chronic illness and costly, long-term health care, it sustains economic viability through a vibrant workforce across the state, rather than isolated areas thriving at the expense of others.

With the exception of two outsized counties, rural populations are the norm across Arizona. In nearly half of Arizona's 15 counties, 40% or more of the population live in rural areas. Twelve counties (80%) have more than 20% rural population. And even the three most urban counties have sizable rural populations.

These rural residents have lower average income, higher unemployment, higher poverty, and greater need for Medicaid. They have the lowest health quality and the highest health risks. There are more aging adults, more chronic disease, and more children lacking health insurance. Greater geographic isolation means people must also travel long distances to reach health services.

Rural health care facilities are scarce, and many teeter on the edge of financial insolvency. There is a severe shortage of primary care physicians. With infrastructure that barely meets demand, rural areas are the least able to handle public health emergencies, like COVID-19.

There are 22 federally-recognized Native American tribes in Arizona, living mostly in rural areas across the state. These people have the most glaring health disparities in almost every category. A significant number lack even the most basic infrastructure, such as indoor plumbing and uncrowded housing, never mind internet connectivity. It may come as no surprise that rural Native populations are facing a disproportionate impact of the epidemic with higher infection and mortality rates than the rest of the country, with the Navajo Nation having the highest number of COVID-19 cases in the country.<sup>1,2</sup>

Telemedicine services can help ease the burden of long-distance travel to reach health services were they only better accessible to rural populations. Remote internet connectivity closes distances and provides access to a host of services, from care delivery and specialist consultations to monitoring of chronic diseases. Some regulatory requirements have been eased during the COVID-19 pandemic, but these changes need to be made permanent. Other regulatory and infrastructure barriers remain, including the lack of fundamental internet and broadband capabilities.

Medicaid is designed to protect our most vulnerable citizens. Yet Arizona has had a fraught history with Medicaid, and legislative funding challenges continue. With approximately 1.8 million people enrolled, the legislature continues to try to pare away qualified enrolled people; this disproportionately impacts rural families.

The federal Coronavirus Aid, Relief, and Economic Security (CARES) Act, recognizing the challenges in rural healthcare provisioning, recently appropriated monies to benefit rural patients and providers. How this is distributed within Arizona remains to be seen.

## What is “Rural”?

It is important to understand how rural areas are defined by different government entities:

**Urban-Rural:** The Census Bureau classifies rural areas as all geographic areas that are not urban areas or urban clusters. *Urban areas* are defined as containing 50,000 or more people, while *urban clusters* contain 2,500-50,000 people. Boundaries are reevaluated at each census.<sup>3</sup> (See map, Appendix 1).

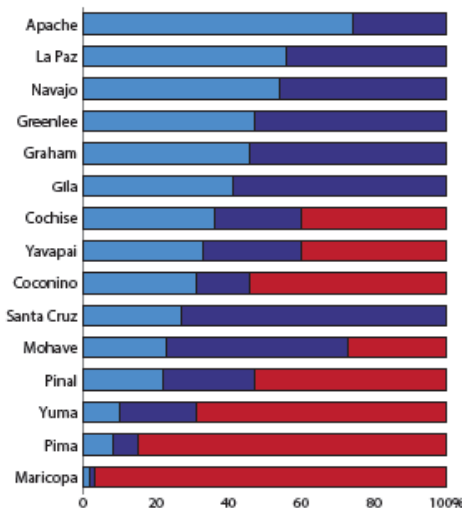
**Socioeconomic Relationships:** Examining commuting patterns can help trace if people receive health care where they work. The Office of Management and Budget (OMB) defines three “statistical areas,” metropolitan, micropolitan, and outside metropolitan and micropolitan (rural). (see map Appendix 1). Metropolitan areas include one or more counties that contain at least one urban area of 50,000 or more people, along with adjacent counties showing significant commuting patterns into those urban counties. Micropolitan areas are smaller with at least one urban cluster of 10,000, but fewer than 50,000. Similarly, the USDA Economic Research Service’s Rural-Urban Commuting Area (RUCA) codes take into account commuting patterns.<sup>4,5</sup>

**Arizona Medical Training:** For the purpose of funding medical education for rural health care professionals, Arizona state statutes define rural as either: 1) a county with fewer than 400,000 people, or 2) a county division with fewer than 50,000 people, itself within a county containing 400,000 or more people.<sup>6</sup>

## Arizona Counties

As shown below, more than half of Arizona’s counties have significantly rural populations. In contrast, Maricopa County has nine of the ten most populated cities and is frequently cited as the fastest growing county in the state. Its disproportionate share of the population and continued growth is of concern to rural governments. To quote one rural mayor, “They have more people, more money, more clout.”<sup>7,8</sup>

Percent Population in Rural, Urban Cluster, and Urban Areas



▶▶ The entire population in 7 of Arizona’s 15 counties live in Rural or Urban Clusters.

County	Population
Maricopa	4,410,824
Pima	1,039,073
Pinal	447,138
Yavapai	231,993
Yuma	212,128
Mohave	209,550
Coconino	142,854
Cochise	126,770
Navajo	110,445
Apache	71,818
Gila	53,889
Santa Cruz	46,511
Graham	38,072
La Paz	21,098
Greenlee	9,483
Total	7,171,646

Source: U.S Census Bureau.

## Selected Demographics

- Just under half the state population is comprised of four minority groups, Hispanic (30.9%), Native American (5.4%), Black (4.9%) and Asian (3.4%).<sup>9</sup>
- Arizona has the third fastest growth rate of low-income aging population. Approximately 25% of the state’s older population lives in rural areas:
  - La Paz County has the highest percentage of adults age 65 and over (37.8%).
  - Santa Cruz County has the highest percentage aging Hispanic population (59.8%).
  - Aging Native Americans live mostly in Apache, Navajo, and Coconino Counties.

## Rural-Urban Socioeconomic Divide

There is a significant divide between rural and urban areas compared by metrics of income, poverty, education, and employment, as shown in the following table. Rural areas have lower income and education, while facing significantly higher levels of poverty and unemployment.<sup>10,11</sup> The six most rural counties (Apache, La Paz, Navajo, Greenlee, Gila, and Santa Cruz) all have poverty rates of 20% or above.<sup>12</sup>

Socioeconomic Comparisons	Rural	Urban
Per capita Income	\$34,841	\$44,329
Poverty Rate	26.9%	13.4%
Not completing high school	18.2%	13.0%
Completing high school only	30.4%	23.7%
Completing College	15.8%	29.6%
Unemployment rate	7.3%	4.7%

*Adapted from, Morrison (3) and USDA Economic Research Service:  
<https://data.ers.usda.gov/reports.aspx?StateFIPS=04&StateName=Arizona&ID=17854Income>  
 Data from 2018; Education data is for the period, 2014-2018*

## Factors Contributing to Health Disparities

Rural populations have more socioeconomic and geographic challenges. Residents are more likely to have chronic health conditions like heart disease, diabetes, and cancer. Residents are more likely to need to travel long distances to reach health care facilities and are likely to have more limited transportation options available. Public transportation can be expensive, and poor road conditions can add to travel impediments. Hospitals and clinics are farther apart, offer fewer services, and suffer from significant staffing shortages.<sup>13,14</sup>

## Rural Health Care Infrastructure

Rural hospitals and clinics are barely able to survive financially.<sup>15</sup> In response to growing, rural hospital closures beginning in late 1980s, the Centers for Medicare and Medicaid Services (CMS) created designations for financially vulnerable rural facilities. Qualifying facilities receive enhanced or specific reimbursements for providing Medicare and Medicaid services.<sup>16</sup> The statewide distribution is shown in Appendix 2. As of January 2020, rural Arizona has:

- 15 Critical Access Hospitals (CAHs): these rural hospitals have 25 or fewer hospital beds, are located at least 35 miles from another health facility, maintain an average stay of 96 hours or less for acute patients, and provide 24/7 emergency services.
- 34 Rural Health Clinics (RHCs): these clinics deliver care using physicians and non-physician teams, including physician assistants, nurse practitioners, and certified midwives. RHCs provide primary outpatient care and basic laboratory services.
- 66 Federally Qualified Health Centers (FQHCs): These serve approximately one in five rural residents. These outpatient clinics are part of the health safety net for the uninsured and underserved and provide comprehensive primary care and other services, regardless of ability to pay. They also serve Medicare, Medicaid (AHCCC), and CHIP (Kids Care) enrollees. Centers may include outpatient clinics associated with tribal organizations.

## Challenges during COVID-19 Crisis<sup>17</sup>

Making matters even worse, thin hospital coverage leaves rural communities ill-equipped to deal with health emergencies, such as the COVID-19 pandemic. Arizona's largely rural counties are woefully lacking in ICU beds:

- No Beds: Apache County, Santa Cruz, Graham and Greenlee Counties
- Under 25 beds: La Paz (3), Gila (8), Navajo, Cochise (12), Pinal (22) Counties
- In these counties, this results in 2,000–4,500 people over 60 per each ICU bed

Financially-challenged health facilities, dependent on revenues from sources like elective surgeries, are even more at risk during the current pandemic. With the cancellation of these procedures, critically needed revenue has dried up.

## Telehealth/Telemedicine

These terms, often used interchangeably, mean the delivery of health-related services remotely over long-distances.<sup>18</sup> Telemedicine is often used narrowly to mean patient clinical services, whereas telehealth also includes other aspects of health-care service delivery, e.g., provider training and administrative functions.

Telemedicine can be an effective means for rural health care delivery.<sup>19</sup> Some regulatory barriers have recently been eased: Arizona legislation expanded covered services and providers and mandated insurance reimbursement. The federal CARES Act lifted some restrictions on Medicare reimbursement and empowered Rural Health Clinics and FQHCs to deliver telemedicine.<sup>20</sup> The challenge will be to make the time-limited provisions of the CARES Act permanent. (See Appendix 5)

The lack of broadband internet access in rural Arizona remains a substantial problem, one which will impede the success of telemedicine in those communities where they need it the most. A 2016 FCC study found that 63% of Arizona's population without broadband internet access live in rural areas, and fully 95% of the tribal population has no broadband access at all. Expanding broadband into rural communities is expensive and does not easily attract private investment.<sup>21</sup>

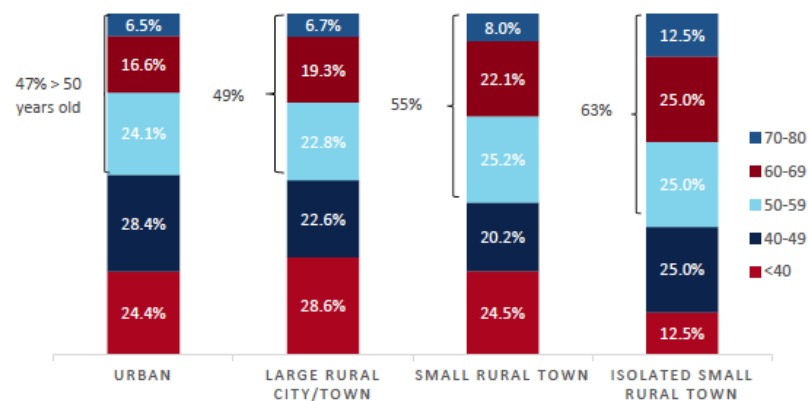
## Acute Physician Shortage

Arizona suffers a severe shortage of health care professionals to meet the needs of its growing, aging, and underserved population, particularly in rural areas. An October 2019 report on the state of Arizona’s Primary Care Physician (PCP) workforce shows a current deficit of 558 PCPs, with more than 1,940 additional PCPs needed by 2030.<sup>22</sup>

The rural-urban disparity is reflected in the distribution of health care providers. Most physicians (95%) practice in the heavily populated urban areas, with 80 PCPs per 100,000 people. In contrast, rural cities have an average of 65 PCPs per 100,000, falling to a paltry 10 per 100,000 for isolated rural towns. Additionally,

- Primary care physicians’ income is only half that of specialists. Faced with high medical school debt, fewer graduates are choosing primary care medicine practices.
- 25% of PCPs practicing in rural areas plan to retire within the next five years.

The following figure shows a markedly higher percentage of aging physicians in small town rural areas:



Graph 3. Percent of Physicians by Age Group and RUCA

Recent Arizona legislation aims to address the rural primary care physician shortage (See Legislative Section, below). In 2019, the legislature appropriated three million dollars to fund medical school scholarships which will provide free tuition in exchange for two years of rural service after graduation. This scholarship program will fund up to 94 students.<sup>23</sup>

“It’s a huge deal, it is very exciting,” said Dr. Jonathan Cartsonis, Director of the Rural Health Professions Program at the University of Arizona College of Medicine-Phoenix. He notes this could help the looming problem of “OB deserts,” where pregnant women have to leave their communities to find obstetrical care.<sup>24</sup>

However, this program will not quickly alleviate rural physician shortages, as graduates are allowed to defer their rural service for up to six years after graduation.

The Universal Licensing Act (HB2569) passed in 2019 may also provide workforce help. This bill streamlines the process for obtaining a reciprocal medical license in Arizona.

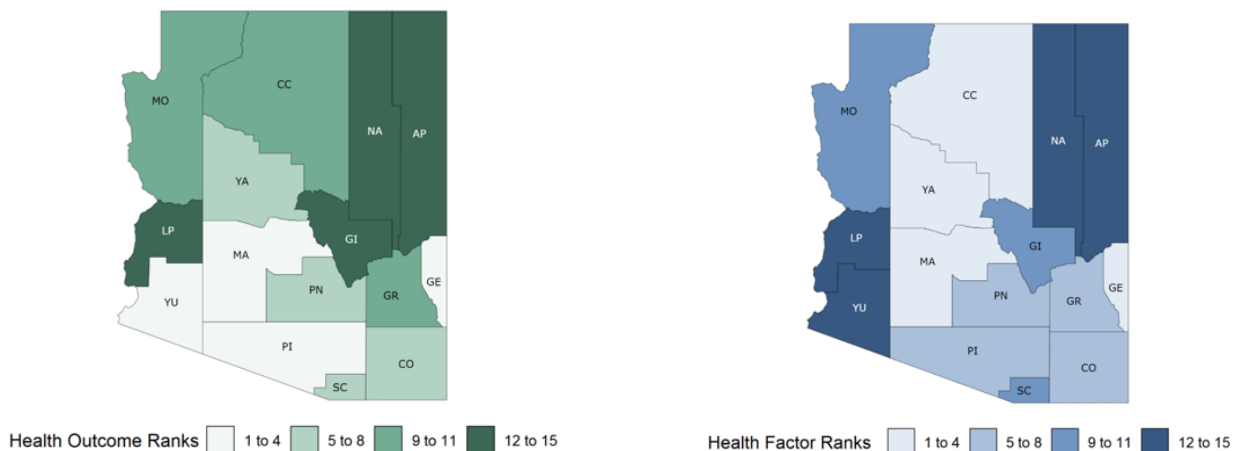
“This law will allow doctors to get to work caring for Arizonans more quickly than ever before,” said Dr. Nick Goodman, CEO of MomDoc, Arizona’s largest women’s health care group.<sup>25</sup>

## Rural Health Quality

The Robert Wood Johnson Foundation annually ranks every U.S. county against factors contributing to local health status, measuring both Health Outcomes and Health Factors.<sup>26</sup> The two figures below show the 2020 rankings for Arizona counties. As shown, the lowest health quality and highest health risks track with rural populations. The counties having largely rural or with only urban centers rank lowest on both metrics.

- Health Outcomes take into account both length and quality of life.
- Health Factors includes health behaviors (tobacco, drug, and alcohol use, sexual activity, diet and exercise), clinical care (access and quality), socioeconomic (education, employment, support, and safety) and physical environment (air and water quality, housing, and transit).

Lighter color shades indicate better ranking, darker shades worse rankings.



## Rural Poverty and Medicaid

Under the Affordable Care Act (ACA), Arizona expanded Medicaid in 2013, and has since seen a 40% jump in enrollments. The number has continued to rise, with enrollments currently at 1.8 million. Republican legislators continue working to limit eligibility.<sup>27</sup> The Trump administration is in full support: In a 2017 letter to States’ Governors, Health and Human Services Secretary Price and CMS Administrator Verma stated that Medicaid expansion to include working-age, non-disabled adults without dependent children was a clear departure from the original intended Medicaid mission.<sup>28</sup>

### Rural Adults

Recent legislation disproportionately impacts rural adults living in poverty. In 2019, with the support of the Trump administration, the legislature passed SB1092, “AHCCC Works,” which would impose a work requirement on Medicaid recipients and carrying a lifetime limit of five years health benefits.<sup>29</sup> (See Legislative Section below).

According to Joan Alker, Executive Director of Georgetown University Health Policy Institute’s Center for Children and Families, “I think it’s a misguided policy to begin with. If you want to encourage people to work, which we all do, they need to be healthy. Taking their health care away is backwards.”<sup>30</sup>

Dana Naimark, President and CEO Children’s Action Alliance, adds, “I ask our lawmakers to tell us how they will ensure the new requirements just don’t create more red tape [...] already working people could lose their health care due to paperwork errors [...] or not getting enough work hours on the job.”<sup>31</sup>

Fortunately, as of October 2019, implementation of AHCCC Works had been postponed in light of “the evolving national landscape concerning Medicaid community engagement programs and ongoing litigation regarding the topic.”<sup>32</sup>

## Rural Children

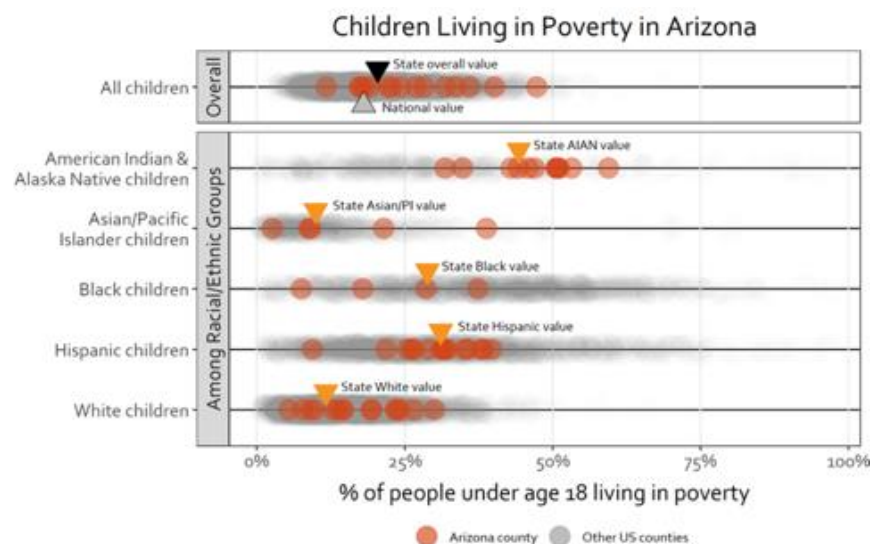
Access to preventative and routine health care is essential for children to become healthy, productive members of society and prevent the long-term costs of chronic illness. Since 2016, the number of uninsured children has been growing nationwide, and Arizona has been among the worst offenders.<sup>33,34</sup>

- Arizona currently has the third highest rate in the country of uninsured children.
- Arizona ranks 47<sup>th</sup> in total number of uninsured children, with 146,000 uninsured.
- Fully 20% of Arizona’s children live in high poverty.

Race is strongly correlated with childhood poverty and lack of health insurance:

- American Indian children are seven times more likely to live in high poverty than white children.
- 30% of Latino/Hispanic children live in high poverty.
- American Indian/Alaska Native have the highest rates of uninsured children.

The figure below shows that minorities overall have a far higher percentage of children living in high poverty than white children.<sup>35</sup>



KidsCare is Arizona’s Medicaid program for children’s health insurance. After a six-year freeze, KidsCare was reopened in 2016. However, the legislature has held funding and enrollments hostage to the requirement for 100% federal match funding. Finally, last year the legislature severed that requirement (HB2754). However, new language still allows a freeze if the Director of AHCCC feels there are insufficient state and federal appropriations. Advocates must be vigilant to ensure long-term continuation of KidsCare funding.

## The Tribal Nations

Native Americans are the most at risk for health issues. They have the lowest life expectancy of all races and among the highest disease burdens.<sup>36</sup>

This has never been shown more clearly than by the disproportionate surge in COVID-19 cases on reservations, particularly the Navajo Nation (covering parts of Arizona, New Mexico and Utah). Research is showing that on-reservation cases of COVID-19 track with lack of access to running water or indoor plumbing, and language barriers. On the Navajo reservation alone, 18% of residents do not have indoor plumbing.<sup>37,38</sup>

There are 22 federally-recognized tribes in Arizona living in reservations across the majority of Arizona’s counties.<sup>39</sup> (See Appendices 3 and 4 for map and tribal information). Tribe members receive “Direct Care” at Indian Health Service centers and tribal health care facilities, and they can also seek “Purchased/Referred Care” (PRC) elsewhere. Enrolled tribal members are automatically eligible for Arizona’s Medicaid program (through AHCCC) and KidsCare.<sup>40,41</sup>

Underfunding of the Indian Health Service (IHS) compared to other federal health programs has been a longstanding concern. In a recent study, the Government Accounting Office (GAO) found the 2017 average-per-capita spend for the IHS was \$4,078, compared with \$10,692 for the Veterans Health Administration, another direct health care provider. For the public insurers, Medicaid and Medicare, it was \$8,109 and \$13,185, respectively. The GAO notes that this is an average spend, and cannot capture total spend since some individuals may be eligible across several programs.<sup>42</sup>

## Health Disparities are Staggering

Measures of health for Arizona’s Native Americans are the lowest in the state when ranked on almost every metric.<sup>43</sup> Injuries and illness due to alcohol and drug abuse have been climbing. Compared to the average Arizonan, they face

- A 2.5-3.5 times higher rate of diabetes and chronic liver disease
- A 4 times higher rate of alcohol-induced deaths
- A 1.6 times higher mortality rate for adults aged 20-44

Additional sobering metrics:<sup>44 45</sup>

- Near 40% poverty rate across all Arizona reservations combined
- Infant mortality rate of 9.2%, compared to the average Arizona rate of 5.7%
- Median age of death is 59 years old, compared to 76 for all Arizonans
- Percentage of people under age 65 without health insurance, 28.6%
- People of all ages in fair-to-poor health 17.4%
- American Indian children living in high poverty, 61%

Given their state of health, Arizona’s tribal residents are disproportionately impacted by public health emergencies. The heavily rural Navajo Nation, with its COVID-19 epicenter in Chilchinbeto, Arizona,



has been well publicized as having the highest rate of positive cases in the country (7,093 as of June 9th). However, as reported by IHS organizations there are also over 2,700 Native American cases in the Phoenix and Tucson metropolitan areas.<sup>46</sup>

The CARES Act allocated \$8 billion overall, specifically for Native American populations nationwide. However, as

Governor Stephen Roe Lewis of the Gila River Indian Community stated in a meeting with President Trump in May, “This amount is ‘woefully inadequate’” and called for capping funding that any one tribe receives. “We need to spread the limited resources currently available as far as we can, and to avoid allocation to a very few tribes and under-allocating to most others”.<sup>47</sup>

Many Native Americans require health care services unavailable on their reservations or within IHS facilities. Consequently, they must be referred for consultations or more complex care to other providers or facilities; these can frequently be more geographically distant.<sup>48</sup> As discussed earlier, telemedicine could help to bridge the literal divide for Native Americans isolated on reservations. However, 95% of tribal populations have no broadband internet connectivity at all. Recent legislation through the CARES Act targets improving rural high-speed internet, including access for tribal nations (See Appendices 5 and 6). Plans for how to accomplish this, however, are yet to be formulated.

## Legislation Affecting Rural Health Care

### Federal Legislation

The CARES Act appropriated funding targeted to help rural patients and providers. It also appropriated monies for Native American Indian health care (See Appendices 5 and 6).

### Arizona-specific Legislation

- **Expansion of Telemedicine, driven by COVID-19** (Executive Order 2020-15. March 25, 2020)  
Requires insurance and Medicaid coverage for telemedicine. Accelerates some coverage provisions found in SB1089 below. The provisions continue for the duration of the public health emergency.
- **Telemedicine for Workers’ Compensation** (Executive Order 2020-15. March 29, 2020)  
Ensures worker compensation insurance plans cover telemedicine. Continues for the duration of the public health emergency.
- **Telemedicine improvements, driven by COVID-19** (2020, HB2536)  
This bill, enacted immediately, expands the list of approved healthcare providers to include chiropractors, physical therapists, occupational therapists, athletic trainers, hearing aid dispensers, audiologists, and speech-language pathologists. It also updates the definition of telemedicine to interactive use of audio, video, or other electronic media, *including asynchronous store-and-forward technologies, and remote patient monitoring technologies* for the purposes of diagnosis, consultation, or treatment. It does not include audio-only, video-only, FAX, email, or instant messaging.
- **Telehealth, modifies insurance coverage regulations** (2019, SB1089)  
This law, not taking effect until January 2021, requires insurers to cover any health care services provided through telemedicine if the same services would be covered when provided in-person. Prior limitations and exclusions were removed. It updates

- telemedicine definition to include asynchronous store-and-forward technologies and remote patient monitoring technologies. The bill passed unanimously in both House and Senate.
- **Funding for rural physician training (2019, HB2747)**  
Appropriates funds for tuition waivers and facilities expansion (\$8 million total). Three million dollars was used for the creation of “University of Arizona Primary Care Physician Scholarships”: awarding free tuition in exchange for two years of rural service after graduation. Service must begin within six years after graduation.
  - **Arizona Universal Licensing Act (2019, HB2569)**  
This Act applies to health care professionals as well as all other licensed occupations. It streamlines the process to obtain a reciprocal license in Arizona without undergoing any re-licensing training or examinations. Licensure Boards will directly issue licenses providing certain requirements are met, including professional good-standing in their previous state. Within a month after passage, the Arizona Medical Board received 27 applications and approved 10% of them. The bill, championed by Republicans as a victory in reducing burdensome regulations, passed along party lines. Democrats voted against the bill due to concerns about lower standards if a professional comes from a state with less rigorous license requirements.<sup>49</sup>
  - **KidsCare (CHIP, Medicaid) Legislation**  
Arizona froze enrollments in KidsCare in 2010. When the legislature reinstated KidsCare in 2016 (SB1457), it was tied to receiving federal matching funds (FMAP). In 2017, with an ACA-mandated drop in FMAP level coming in 2019, the legislature passed SB1527 legislating enrollment freeze if FMAP dropped below 100%. An unsuccessful attempt was made in 2018 to remove that 100% “trigger” language. Finally, in 2019, HB2754 eliminated an enrollment freeze if FMAP drops below 100%. New language, however, gives the Director of AHCCC permissive authority to halt enrollments again if federal and state appropriations are insufficient.

## Summary

As stated, the disparity in healthcare provisioning and funding for Arizona’s rural populations is profoundly inequitable. Until reliable healthcare is affordable and accessible across the state, underserved populations will continue to suffer, unable to help their families or to contribute to economic growth no matter their desire to do so. There are numerous steps—both short-term and long-term—that legislators can take to help mitigate this crisis rather than stand by as it has spiraled downward under successive Republican administrations, jeopardizing the future of the state.

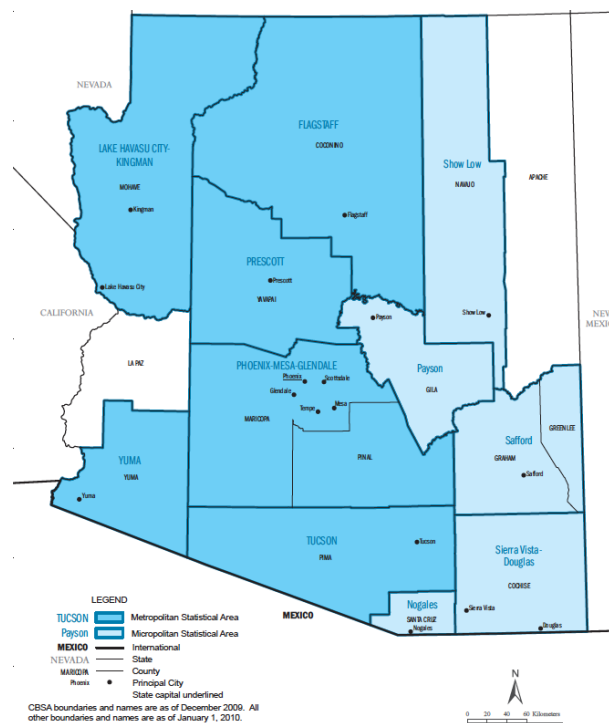
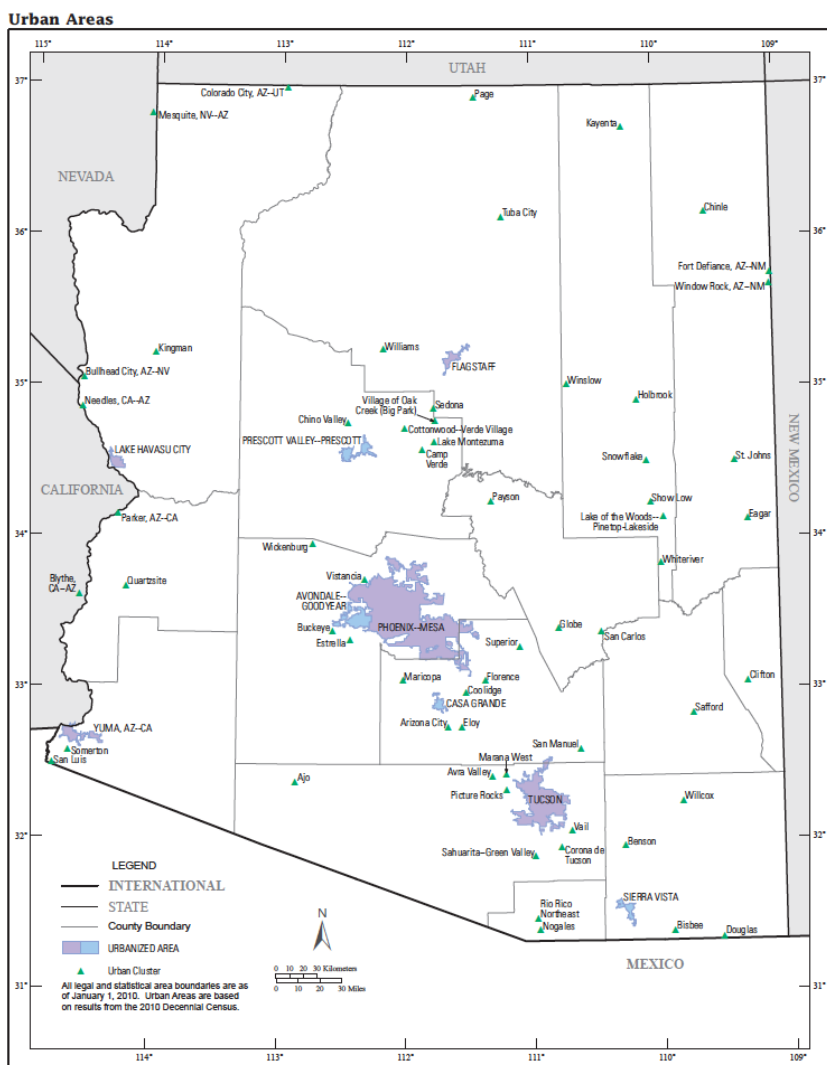
Legislators can take concrete steps to expand broadband technology necessary to access remote telemedicine services—in fact, they are uniquely positioned to do so. Legislators can, in conjunction with Arizona’s robust university system, work to expand medical school headcount and add more rural scholarship opportunities to address the severe shortage of healthcare providers where they are needed the most. Legislators must recognize that their minority and indigenous populations are suffering at a rate far in excess of their more urban neighbors. Last, but not least, legislators can and should be cognizant that 25% of the state’s aging population lives in rural areas—dually imperiled by declining health and declining healthcare options. Legislators can and must recognize that they are uniquely responsible to help this untenable situation; they just need the political will and Democratic representation to do so.

- <sup>1</sup> <https://www.ama-assn.org/delivering-care/population-care/why-covid-19-decimating-some-native-american-communities>
- <sup>2</sup> <https://www.pbs.org/newshour/nation/how-covid-19-is-impacting-indigenous-peoples-in-the-u-s>
- <sup>3</sup> [https://morrisoninstitute.asu.edu/sites/default/files/urban-rural\\_relationship.pdf](https://morrisoninstitute.asu.edu/sites/default/files/urban-rural_relationship.pdf) footnote 4
- <sup>4</sup> [https://www.census.gov/content/dam/Census/library/publications/2019/acs/ACS\\_rural\\_handbook\\_2019\\_ch01.pdf](https://www.census.gov/content/dam/Census/library/publications/2019/acs/ACS_rural_handbook_2019_ch01.pdf)
- <sup>5</sup> <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>
- <sup>6</sup> <https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/15/01754.htm>
- <sup>7</sup> [https://crh.arizona.edu/sites/default/files/pdf/topics/20190226\\_\\_AZlegOnePageFinal.pdf](https://crh.arizona.edu/sites/default/files/pdf/topics/20190226__AZlegOnePageFinal.pdf)
- <sup>8</sup> Morrison, *ibid*
- <sup>9</sup> <https://des.az.gov/documents-center?qt-content-tab=1> Arizona State Plan on Aging, 2019-2022, Appendix G
- <sup>10</sup> Morrison, *ibid*
- <sup>11</sup> <https://data.ers.usda.gov/reports.aspx?StateFIPS=04&StateName=Arizona&ID=17854>
- <sup>12</sup> <https://des.az.gov/documents-center?qt-content-tab=1> Arizona State Plan on Aging 2019-2022 Fig3, p.9
- <sup>13</sup> Morrison, *ibid*
- <sup>14</sup> <https://crh.arizona.edu/topics/disparities>
- <sup>15</sup> <https://crh.arizona.edu/news/2723>
- <sup>16</sup> <https://www.ruralhealthinfo.org/topics/hospitals#designations>
- <sup>17</sup> <https://khn.org/news/as-coronavirus-spreads-widely-millions-of-older-americans-live-in-counties-with-no-icu-beds/#lookup>
- <sup>18</sup> <https://www.ruralhealthinfo.org/topics/telehealth>
- <sup>19</sup> [https://www.ruralhealthweb.org/NRHA/media/Emerge\\_NRHA/Advocacy/Policy%20documents/05-11-18-NRHA-Policy-Telehealth.pdf](https://www.ruralhealthweb.org/NRHA/media/Emerge_NRHA/Advocacy/Policy%20documents/05-11-18-NRHA-Policy-Telehealth.pdf)
- <sup>20</sup> <https://www.aha.org/system/files/media/file/2020/03/cares-act-provisions-to-help-rural-hospitals.pdf>
- <sup>21</sup> <https://www.williamsnews.com/news/2018/oct/03/internet-range-rural-residents-suffer-lack-broadba/>
- <sup>22</sup> [https://uahs.arizona.edu/sites/default/files/2019\\_az\\_primary\\_care\\_physician\\_workforce\\_report.pdf](https://uahs.arizona.edu/sites/default/files/2019_az_primary_care_physician_workforce_report.pdf)
- <sup>23</sup> <https://apnews.com/d16f9c7859964e6cb13308b4b5ac59>.
- <sup>24</sup> <https://www.azcentral.com/story/news/local/arizona-health/2019/11/22/medical-students-get-free-tuition-promise-practice-rural-arizona/4259862002/>
- <sup>25</sup> <https://crh.arizona.edu/blog/cutting-red-tape-streamlined-licensing-process-arizona-physicians>
- <sup>26</sup> <https://www.countyhealthrankings.org/app/arizona/2020/downloads>
- <sup>27</sup> [https://tucson.com/news/local/arizonas-ahcccs-coverage-limit-would-hurt-low-income-families-critics-say/article\\_070ceea5-1485-52bf-ba76-af516413119b.html](https://tucson.com/news/local/arizonas-ahcccs-coverage-limit-would-hurt-low-income-families-critics-say/article_070ceea5-1485-52bf-ba76-af516413119b.html)
- <sup>28</sup> <https://www.hhs.gov/sites/default/files/sec-price-admin-verma-ltr.pdf>
- <sup>29</sup> <https://www.azahcccs.gov/Resources/Federal/sb1092legislativedirectivewaiverproposal.html>
- <sup>30</sup> [https://tucson.com/news/local/arizona-moving-ahead-with-proposal-to-add-ahcccs-work-requirements/article\\_51047730-bff6-5b27-bc72-fb56bb0d3306.html](https://tucson.com/news/local/arizona-moving-ahead-with-proposal-to-add-ahcccs-work-requirements/article_51047730-bff6-5b27-bc72-fb56bb0d3306.html)
- <sup>31</sup> <http://azchildren.org/new-medicaid-requirements-threaten-to-take-away-health-coverage-and-jobs-with-more-red-tape>
- <sup>32</sup> <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf>
- <sup>33</sup> <https://ccf.georgetown.edu/2019/10/29/the-number-of-uninsured-children-in-on-the-rise-acs/>
- <sup>34</sup> <https://www.aecf.org/resources/children-living-in-high-poverty-low-opportunity-neighborhoods/#findings-and-stats>
- <sup>35</sup> <https://www.countyhealthrankings.org/reports/state-reports/2020-arizona-report>
- <sup>36</sup> <https://www.hhs.gov/cto/blog/2019/06/03/ihs-modernization-focus-on-the-patients-and-the-data-will-follow.html>
- <sup>37</sup> <https://econofact.org/covid-19-impact-on-indigenous-peoples-in-the-u-s>
- <sup>38</sup> <https://thehill.com/opinion/civil-rights/496470-what-we-can-learn-from-the-first-peoples-of-the-united-states-in-the-era>
- <sup>39</sup> <https://gotr.azgovernor.gov/gotr/tribes-arizona>
- <sup>40</sup> <https://www.azahcccs.gov/AmericanIndians/AIHP/>
- <sup>41</sup> [https://des.az.gov/sites/default/files/the\\_state\\_of\\_indian\\_country\\_arizona.pdf](https://des.az.gov/sites/default/files/the_state_of_indian_country_arizona.pdf)
- <sup>42</sup> <https://www.gao.gov/assets/700/695871.pdf>
- <sup>43</sup> [https://des.az.gov/sites/default/files/the\\_state\\_of\\_indian\\_country\\_arizona.pdf](https://des.az.gov/sites/default/files/the_state_of_indian_country_arizona.pdf)
- <sup>44</sup> <https://www.cdc.gov/nchs/fastats/american-indian-health.htm>
- <sup>45</sup> <https://www.aecf.org/resources/children-living-in-high-poverty-low-opportunity-neighborhoods/#findings-and-stats>
- <sup>46</sup> <https://www.ihs.gov/coronavirus/>
- <sup>47</sup> <https://www.medpagetoday.com/infectiousdisease/covid19/86633>
- <sup>48</sup> <https://www.hhs.gov/cto/blog/2019/06/03/ihs-modernization-focus-on-the-patients-and-the-data-will-follow.html>
- <sup>49</sup> <https://cronkitenews.azpbs.org/2019/04/10/license-bill/>

## Appendix I: Rural Areas According to U.S. Census and Office of Management and Budget Definitions

Upper Left: Urban and Urban Cluster areas. Rural areas are all other areas.

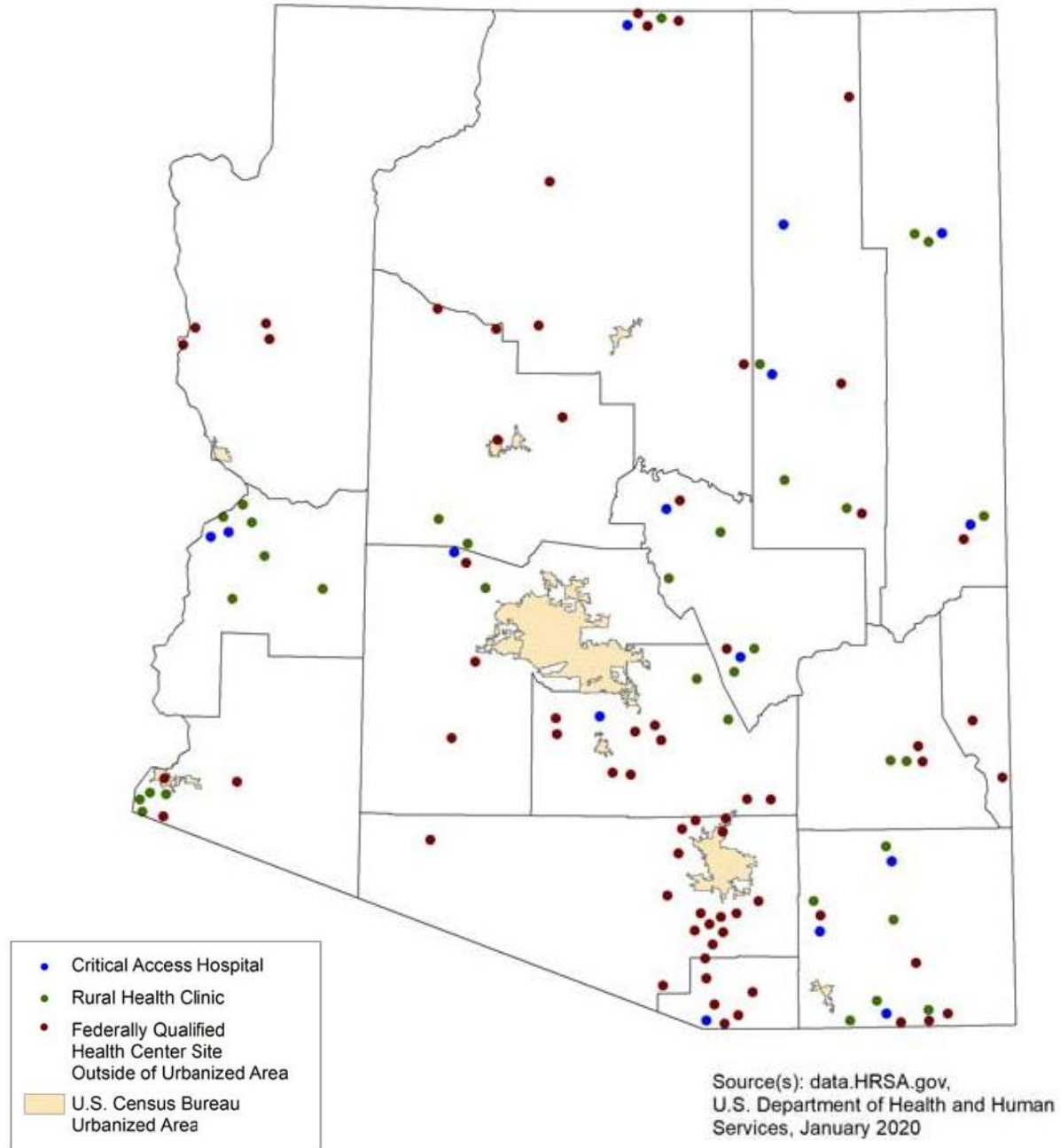
Lower Right: Metropolitan and Micropolitan Statistical Areas. These areas include substantial rural territory within their boundaries.



Source: <https://www2.census.gov/library/publications/decennial/2010/cph-2/cph-2-4.pdf>

## Appendix 2: Map of Rural Health Care Facilities

In large geographic counties, long distances separate the available health centers. Six counties have no rural Critical Access Hospitals at all.

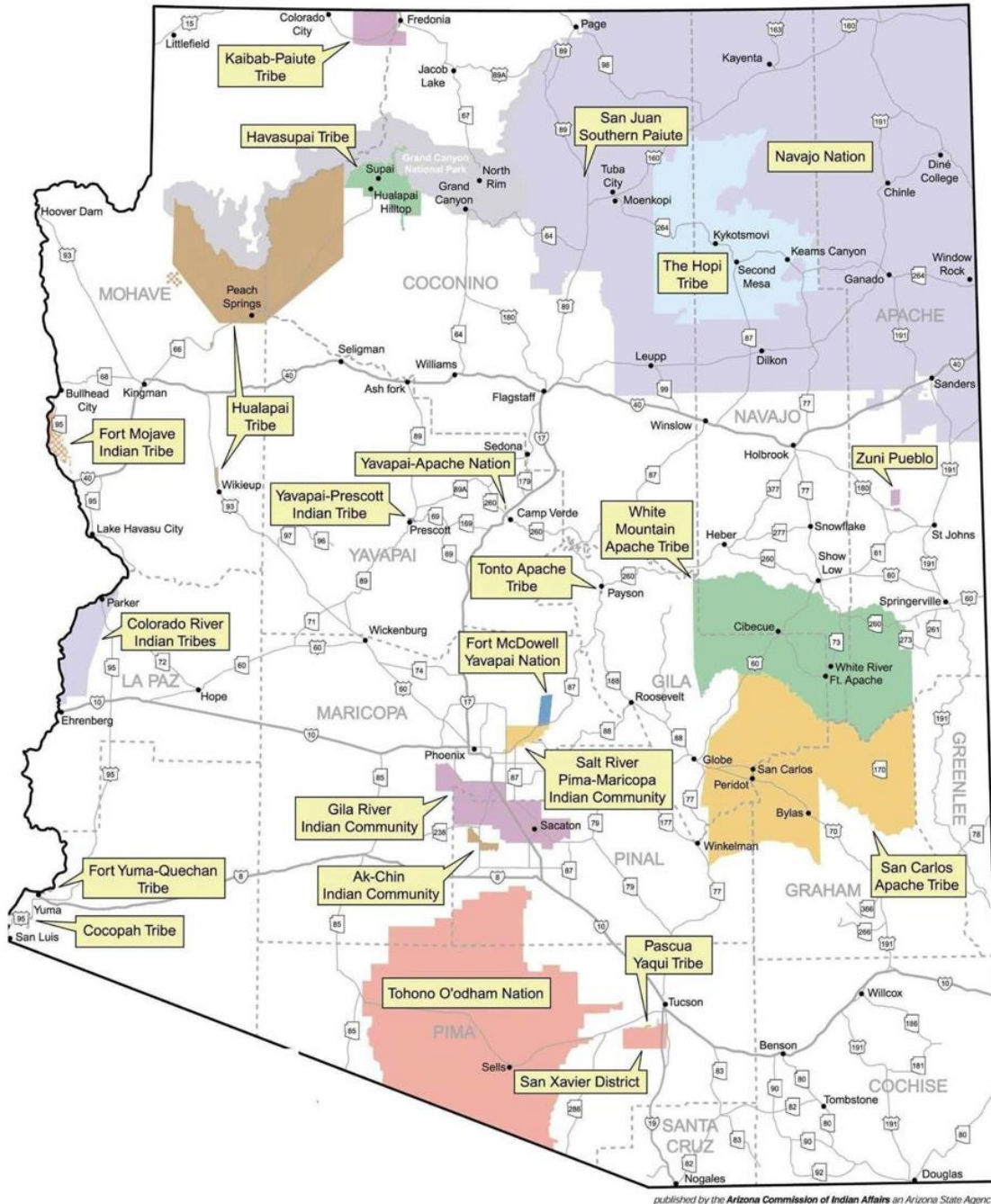


Source: <https://www.ruralhealthinfo.org/states/images/arizona-rural-health-facilities.jpg?v=6>

## Appendix 3: Distribution of Tribal Nations across the State

While focus is often on the Navajo Nation, there are 21 other Tribal Nations. Several are found within Metropolitan Areas.

### ARIZONA TRIBAL LANDS MAP



Source: <https://gotr.azgovernor.gov/gotr/tribes-arizona> Tribal Lands Map

## Appendix 4: Federally-Recognized Tribes in Arizona

The 22 Tribes in Arizona: Note that nearly 81% of the tribal communities live in Legislative District 7.

<i>Federally Recognized Tribes &amp; AZ Reservation Size</i>	<i>Population (2013, rounded)</i>	<i>% Total Population (409,238)</i>	<i>AZ Acreage (appx)</i>	<i>Legislative District</i>
Ak Chin Indian Community	934	<1	21,480	11
Cocopah Tribe of Arizona	1,074	<1	6,520	4
Colorado River Indian Tribes	7,466	1.8	226,000	5
Fort McDowell Yavapai Nation	960	<1	26,400	23
Fort Mojave Indian Tribe (AZ, CA, NV)	1,120	<1	22,800	5
Gila River Indian Community	16,500	4.0	373,400	8, 27
Havasupai Tribe	650	<1	185,500	7
Hopi Tribe of Arizona	12,008	2.9	1,500,000	7
Hualapai Tribe	2,210	<1	992,460	7
Kaibab-Paiute Tribe	240	<1	120,400	7
Navajo Nation (in AZ, NM, Utah)	275,000	67.0	11,600,000	7
Pascua Yaqui Tribe	18,161	4.4	1,830	3
Pueblo of Zuni	18,692	4.5	463,300	7
Quechan Tribe (AZ, CA)	3,037	<1	43,960	4, 13
Salt River Pima-Maricopa Indian Community	9,500	2.3	53,000	26
San Carlos Apache Tribe	12,214	3.0	1,800,000	7
San Juan Southern Paiute Tribe	300	<1	0*	7
Tohono O'odham Nation	31,171	7.6	2,800,000	4
Tonto Apache Tribe	110	<1	85	6
White Mountain Apache Tribe	13,500	3.2	1,700,000	7
Yavapai-Apache Nation	2,365	<1	1,750	6
Yavapai-Prescott Tribe	187	<1	1,425	1

Data is Current as of, March, 2020. \*Tribal members live within Navajo Nation lands  
[https://des.az.gov/sites/default/files/the\\_state\\_of\\_indian\\_country\\_arizona.pdf](https://des.az.gov/sites/default/files/the_state_of_indian_country_arizona.pdf)  
<https://www.ncsl.org/research/state-tribal-institute/list-of-federal-and-state-recognized-tribes.aspx#az>

## Appendix 5: CARES Act Provisions with Potential Impacts for Rural Health (Nationally)

Beyond provisions for paid sick leave, expanded family and medical leave, and expanded unemployment benefits., the CARES Act also includes:

CARES Act	Impacts for Rural Health, Patients, Providers and Infrastructure
Medicare	Financial benefits to rural hospitals: (a) Restoration of reimbursement levels by temporarily eliminating Medicare sequestration. Under sequestration (2013), Critical Access Hospitals (CAHs) received only 99% of allowable costs, instead of 101%, (b) Accelerated payments option, CAH's can receive 125% of costs, (c) Add-on payments for Inpatient Prospective Payment System (PPS): 20% add-on to DRG-rate for patients with COVID-19. Will apply to rural and urban PPS hospitals.
Medicaid (DSH payments)	Disproportionate Share Hospital (DSH) Payments. Rural hospitals serving low-income patients depend on these Medicaid reimbursement payments. The CARES Act eliminates FY20 cuts, and reduces FY2021 cuts 50%, from \$8B to \$4B. FY21 cuts implementation are delayed until Dec 1, 2020. No new cuts added at the 2025 end-date.
Telehealth/ Telemedicine	Rural patients benefit by reducing need to travel and more services available. (a) rural clinics (RHCs ) and health centers (FQHCs) allowed to provide telehealth services and will be reimbursed at comparable rates for telehealth under physician fee schedule, (b) Medicare beneficiaries can immediately qualify for telehealth services from their providers, (c) hospice recertifications allowed and by Nurse Practitioners, (e) home dialysis requirements eased, and (f) \$200M to FCC for infrastructure improvements
Funding rural health programs	\$180M to Health Resources Service Administration (HRSA). To support critical access hospitals, rural tribal health, and telehealth, and more. Includes \$15M for tribal health (separate from additional \$1B to Indian Health Service, table below)
Delivery of Home Health Services	Physician Assistants, Nurse Practitioners, and certified nurse specialists allowed to certify home health services and complete some documentation requirements
Funding community health centers and teaching centers	\$1.32B supplemental funding to community health centers. Extends mandatory funding for community health centers and medical education teaching centers. Supports continued service to low-income populations during pandemic.
Reauthorizes rural health grant programs	HRSA grant programs extended: Rural Health Care Services Outreach, Rural Health Network Development, and Small Health Care Provider Quality Improvement. Aimed at improving rural health care. Increased the limits for future appropriations.
Reauthorizes health training programs	Covers multiple professions. Prioritizes programs for rural workforce, tribal health, other medically underserved. Revised focus to most at-risk: aging and chronically ill.
Deployment Health Service Corps	Redirecting National Health Service Corps providers, and forms "Ready Reserve Corps" within US Public Health Service
Volunteer Liability Protection	For volunteer health care professionals during COVID-19. Must act within license scope, without expectation of payments (except travel). Exclusions from liability for willful misconduct and other categories
Extends workforce demonstration project	Program assists low-income recipients with education and training for health care jobs. Extends current projects and funding levels. (Nov 30, 2020)

<https://www.aha.org/system/files/media/file/2020/03/cares-act-provisions-to-help-rural-hospitals.pdf>



## Appendix 6: CARES Act Health-Related Allocations to Native Americans (Nationally)

CARES Act	Programs supported
<b>\$1.032B total (allocations, \$M)</b>	<b>To Indian Health Service (IHS)</b>
570	IHS federal health programs, and Tribal Health Programs (THP)
30	For Urban Indian Organizations (UIO); for hospitals and health clinics, alcohol substance abuse, mental health, and purchased/referred care
65	Electronic health record stabilization and support
125	For coronavirus-related facilities activities
20	Additional to UIO
50	For IHS health programs, tribal health programs: for Community Health Representatives and for nursing programs
95	Support expansion of telehealth across THP, UIO and HIS (equipment, software, services)
77	IHS administered; COVID-19 delineated allocations
<b>\$453M</b>	<b>To Bureau Indian Affairs (Dept. Interior)</b>
	Includes allocations for housing, “imminent threats to health & safety”, food distribution and other tribal enterprises

<https://www.ihs.gov/newsroom/pressreleases/2020-press-releases/ihs-receives-more-than-1-billion-for-coronavirus-response/>