



2020 REPORT



CREATING VIBRANT COMMUNITIES

THE 113TH ARIZONA TOWN HALL

BACKGROUND REPORT

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Welcome to another breakthrough topic for Arizona Town Hall. Last year's "Strong Families, Thriving Children," was an interdependent, multi-sector exploration focused on the family unit. "Creating Vibrant Communities" is a holistic investigation built on the many interdependent elements of thriving at the community level.

A vibrant community is – at its core – a healthy, supportive, and resource-rich environment for all. It is a community that inclusively taps human, economic, and natural capital to thrive and grow together.

Creating Vibrant Communities

The task of creating vibrant communities asks us to understand root causes and structures in such communities and to collaborate across community sectors. It is our tendency to “break things down” and single-focus – to say, “we need better education,” for example. However, better academic performance is not just a function of teacher quality, school budget, or operation, but also of a child’s readiness to learn. A child who shows up with their prefrontal cortex “offline” due to lack of sleep, hunger, and/or household insufficiency and instability is *physiologically* deterred from entering learning. At best, the teacher’s task is great. Worst case, the education system alone will be considered to have failed. Seeing holistically and solving for vibrancy focuses on multiple causes and has the capacity to shift the odds significantly in favor of success for children, families, teachers, schools, and communities.

Vibrant communities are the product of many components. While the topic asks us to think holistically, this report is structured to introduce elements of a vibrant community through an exploration of current models, existing data on emerging issues and trends, current systemic barriers faced by communities, and ways in which community action and policy change can create a healthier Arizona for all.

What are the Components of a Vibrant Community?

Community vibrancy is dependent on community well-being and health. This big picture view of health includes multiple domains, of which medical care is a small part – by most estimates, somewhere between 10 and 20 percent of – what determines a population’s health, and in turn, vibrancy.¹

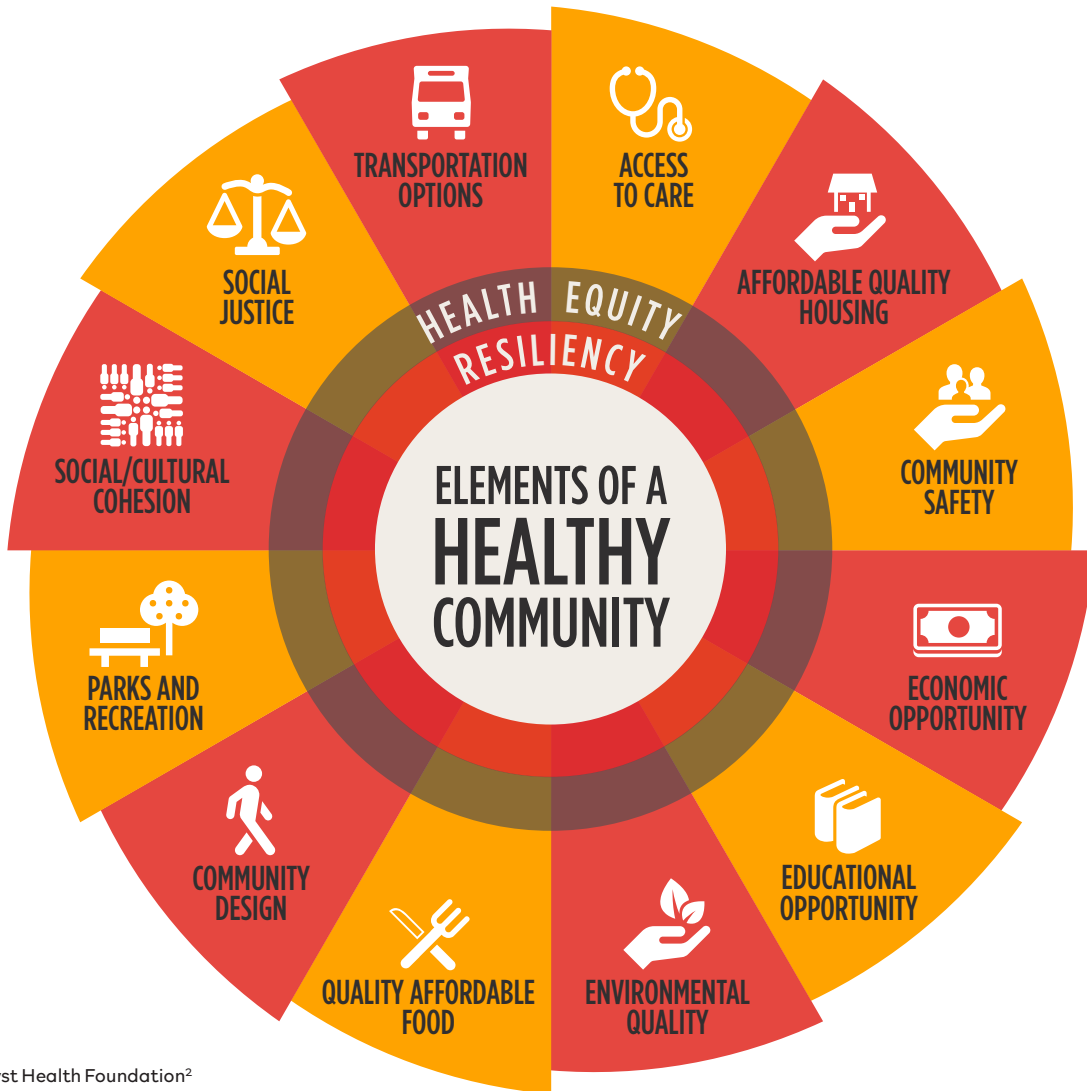
This report examines community vibrancy through Vitalyst Health Foundation’s Elements of a Healthy Community – a framework built by statewide community partners using data and science from national and international sources. Fourteen elements are identified that are present and robust in vibrant communities.

When all these elements are intentionally cultivated, coordinated, and mutually aligned, communities thrive and prosper.

- Access to Health Care
- Affordable Quality Housing
- Community Safety
- Economic Opportunity
- Educational Opportunity
- Environmental Quality
- Quality Affordable Food
- Community Design
- Parks and Recreation
- Social/Cultural Cohesion
- Social Justice
- Transportation Options
- Health Equity
- Resiliency

¹ Magnan, S. (9 Oct 2017). *Social Determinants of Health 101 for Health Care: Five Plus Five*. Retrieved from: <https://nam.edu/social-determinants-of-health-101-for-health-care-five-plus-five/>. Access date: 5/30/2020.

ELEMENTS OF A HEALTHY COMMUNITY



Source: Vitalyst Health Foundation²

"A healthy community is one where people have the opportunity to make healthy choices, in environments that are safe, free from violence, and designed to promote health."³

- 2 The elements are informed by the work of the World Health Organization and the Centers for Disease Control and Prevention. The Elements of a Healthy Community wheel was designed and produced by Vitalyst Health Foundation in collaboration with community partners. It is acknowledged that the model carries implicit Western bias – an issue Vitalyst has begun to address by developing a culturally-relevant tribal version.
- 3 Build Healthy Places Network. (2020). *What Makes a Healthy Community?* Retrieved from: http://www.buildhealthyplaces.org/network_resources. Access date: 5/30/2020.

Why Is It Important to Build Vibrant Communities?

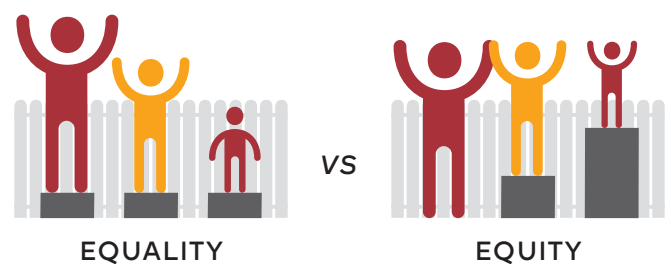
To put it simply, the places we live, work, and play matter. In Arizona, a child born in zip code 85256 has a life expectancy of 65.8 years; meanwhile, a child born in the adjacent zip code of 85251 has a drastically longer life expectancy of 80.89 years.⁴ As that child grows, the ability to make healthy decisions throughout life depends on availability and accessibility of healthy choices. Communities are vibrant for all only when they have fairly offered options for different kinds of development, mobility, and autonomy, such as: (1) supportive spaces for community and development, (2) a diverse array of affordable, quality foods, (3) livable, supportive, and affordable housing, (4) educational attainment, and (5) economic opportunity.

Crucial building blocks to a vibrant community also include pivotal social elements like equity, civic engagement, social cohesion, and community safety. Furthermore, they include air, water, and community elements both inside and outside of household living spaces. When community infrastructure is planned for sustainability, social connections, and well-being, then all Arizonans have the opportunity to thrive.

How Do We Create Vibrant Communities?⁵

Driving change that creates resilient, equitable, and thriving communities takes time and intentionality. The following list details the ingredients necessary to create effective and sustainable change:

1. **Shift the Paradigm:** Elevate thinking about vibrancy beyond individual sectors and individual behaviors to include holistic social conditions, systems issues, and structural inequities.
2. **Change Policies, Systems, and Environments:** Transform problems by concurrently understanding issues “on the ground” and at the systems level – and develop transformational changes to address both.
3. **Support Community-Driven Solutions and Build Trust:** Work with a community rather than for a community. This includes a power-building, assets-focused approach that fosters community ownership and leadership from the outset. It all starts with trust.⁶
4. **Utilize Multi-Sector Partnerships:** Engage stakeholders from multiple sectors to improve vibrancy innovatively, efficiently, and effectively.
5. **Embed Equity:** Recognize that there is no one-size-fits-all approach to a vibrant community. Some of the most effective solutions have historically come through the voices of communities experiencing the largest vibrancy gaps.



Source: Image adapted from Annie E. Casey Foundation's interpretation of Craig Froehle's original illustration.

4 National Center for Health Statistics. U.S. Small-Area Life Expectancy Estimates Project. (2018). Retrieved from: <https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html>. Access date: 5/30/2020.

5 Adapted from Build Healthy Places Network, Robert Wood Johnson Foundation, Voices for Healthy Kids' *Messaging Guide for Policy Advocates*, and Vitalyst Health Foundation's *Ingredients for Change*.

6 Vitalyst Health Foundation. (2019). *Pre-Community Engagement: Setting the Stage for Authentic Community Engagement*. Retrieved from: <http://vitalysthealth.org/wp-content/uploads/VitalystSpark-PreCommunityEngagement.pdf>. Access date: 5/30/2020.

What is the Current State of Affairs in Arizona?

Community capacity for vibrancy varies widely in Arizona, as it does across the United States. Here is a sample of current issues and disparities Arizonans are facing:

- 35.1% of people living in urban areas have low access to healthy food.⁷
 - Statewide, 12.4% of individuals are considered food insecure.⁸
- Low-income individuals spend 58% of their income on transportation, on average, with higher percentages spent in rural areas.⁹
 - In 2016, motor vehicle crashes caused dramatically more deaths than violent crime.¹⁰
 - Arizona is the 9th most dangerous state for people walking in the U.S.¹¹
- In Arizona, 45% of rented homes are rented at 30% or more of household income.¹²
 - Homelessness in Arizona increased almost 10% from 2017 to 2018.¹³
- One in four adults in the state meet physical activity guidelines.¹⁴
- Only 21.9% of Arizonans report conversing with their neighbors; such conversation is used as an indicator to measure social cohesion within communities.¹⁵

Additionally, when examining disparities in Arizona, communities of color, low-income communities, rural and tribal populations, and other groups that have traditionally been marginalized experience increased risks, worse outcomes, and greater barriers in accessing resources:

- In Arizona, the poverty rate of American Indians/Alaska Natives is 34%, 19% for Hispanic or Latino individuals, and 19% for Black or African Americans. Meanwhile, the poverty rate for White (not Hispanic or Latino) individuals is 9%.¹⁶

7 USDA- ERS. (Updated 31 Oct 2019). *Food Access Research Atlas*. Retrieved from: <https://www.ers.usda.gov/data-products/food-access-research-atlas/>. Access date: 5/30/2020.

8 Yazmiene, D. (21 Nov 2019). *Food Insecurity is at a Decade Low in Arizona, Report Says*. Retrieved from: <https://cronkitenews.azpbs.org/2019/11/21/arizona-food-insecurity/>. Access date: 5/30/2020.

9 HUD Exchange. (3016). *Location Affordability Index*. Retrieved from: <https://www.hudexchange.info/programs/location-affordability-index/>. Access date: 5/30/2020.

10 Fatality Analysis Reporting System. (n.d.). *Detailing the Factors Behind Traffic Fatalities on our Roads*. Retrieved from: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>. Access date: 5/30/2020.

11 Smart Growth America. (2019). *Dangerous by Design 2019*. Retrieved from: <https://smartgrowthamerica.org/dangerous-by-design/>. Access date: 5/30/2020.

12 U.S. Census. (2018). *ACS 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 5/31/2020.

13 Arizona Department of Health Services. (2019). *Arizona State Health Assessment*. Retrieved from: <https://www.azdhs.gov/documents/operations/managing-excellence/2019-state-health-assessment.pdf>. Access date: 5/30/2020.

14 Ibid.

15 NCoC Analysis of U.S. Census Current Population Survey Civic and Volunteering Supplement. (2017). Retrieved from: <https://ncoc.org/category/research/>. Access date: 5/30/2020.

16 Kaiser Family Foundation. (2018). *Poverty Rate by Race/Ethnicity*. Retrieved from: <https://www.kff.org/other/state-indicator/poverty-rate-by-raceethnicity/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>. Access date: 5/30/2020.

- The poverty rate in rural Arizona is 26.9%, compared with 13.4% in urban areas of the state.¹⁷
- People of color are far less likely to build generational wealth through access to home ownership than their White counterparts.¹⁸
- 73% of extremely low-income, 34% of very low-income, and 7% of low-income Arizona households spent more than half their income on housing.¹⁹

The Price of Breaking New Ground

It is important to note that, by choosing to pursue the topic of “Creating Vibrant Communities,” Arizona Town Hall has opted to explore important work that is nonetheless relatively new. It is emergent in three key ways:

1. Cross-sector collaboration focused at the community level has not been a standard practice historically. Case studies are not abundant, and most examples are more regionally located in larger population areas.
2. While 14 elements are recognized as key, not all of them have deep wells of data, research, or cross-collaborative experience in Arizona. Some of the key elements also lack clear champions in the state. As such, this report includes chapters with more developed elements and others discussed much less.
3. Research and data collection are at early stages. While work is aggressively being done in the areas of research and data, no widely accepted measure of vibrancy has yet been adopted. Further, key qualitative data and case study results demonstrate the efficacy and importance of this work, but the list of data gaps at the zip-code level is long.

In short, being early means being patient. It also means accepting what we have as compelling emergent evidence and using that evidence to develop vibrant communities robustly and consistently for all in Arizona.

It should also be noted that “element overlap” occurs frequently in this report. Housing and education are discussed in the food chapter for example. Equity and Economic Opportunity do not have separate chapters. Instead racial inequity and income statistics are found in multiple chapters. This is not a mistake. It is a key reminder of the interdependent nature of these elements. Over time, it is important to have more such data overlap, not less. For many chapters, you will find a short sidebar noting these interdependencies that are currently most often recognized.

17 USDA-ERS. (2018). *State Fact Sheets: Arizona*. Retrieved from: <https://data.ers.usda.gov/reports.aspx?StateFIPS=04&StateName=Arizona&ID=17854>. Access date: 5/30/2020.

18 Center for American Progress. (21 Feb 2018). *Systemic Inequality: How America’s Structural Racism Helped Create the Black-White Wealth Gap*. Retrieved from: <https://www.americanprogress.org/issues/race/reports/2018/02/21/447051/systematic-inequality/>. Access date: 6/1/2020.

19 National Low-Income Housing Coalition. (2018). *Arizona State Data Overview*. Retrieved from: <https://nlihc.org/housing-needs-by-state/arizona>. Access date: 5/30/2020.

The Amplifying Power of COVID-19

As of this document's publication, we still have a great deal to learn about the novel coronavirus' impact on our cities, state, country, and the world.

What is abundantly clear from the start of the pandemic, however, is that this Town Hall topic, its holistic approach, and underlying elements of community vibrancy all need our attention, comprehension, and innovation now more than ever.

The COVID-19 pandemic has deeply tested Arizona's economic, housing, food, education, and health systems. It may also be showing us changes to the ways we live, work, learn, and play. The current pandemic has exposed significant issues and disparities that can be transformed into key opportunities for more vibrant communities. It is impossible to predict in these pages what is rapidly being discovered and learned about Arizona communities' capacities for resiliency, but it is crucial that we view what does happen in coming weeks, months, and years through the prism of 14 contributing elements and recognize the potential for cross-sector, community-driven solutions to make our communities better and stronger going forward.

Vibrancy, Elements, and Funding

This Town Hall topic proposes holistic discussion of community vibrancy – and that can be good news when it comes to funding. Rather than “single source” investments and wondering where we could possibly find enough money to do it all, what if we could help identify root community elements that could result in “an ounce of prevention” over a “pound of cure?” What if supportively housing people turned out to cost much less than providing health care for those experiencing housing insecurity and homelessness? A great example of healthcare and housing working collaboratively can be seen in efforts made by Circle the City, an organization that provides healthcare services to people experiencing homelessness, and assists them in the journey out of homelessness.²⁰ In addition, more material on housing-healthcare partnerships will be explored later on in the chapter, “The Intersection of Housing and Vibrant Communities.”

What if the answer to helping a child show up at school ready to learn is simultaneously the key to improving a school's academic performance and a big part of why a community is becoming more resilient and vibrant across all generations? Later, in this report in the chapter, “The Intersection of Education and Vibrant Communities,” the story of the Heart of Isaac will showcase how enhancing a child's surroundings can foster an environment that allows for educational success. These are not what-ifs. They are the returns on investment of breakthrough projects in Arizona that you can read about in this report.

One of the key opportunities for the 113th Arizona Town Hall topic is identifying and championing transformative, collaborative, and cost-effective strategies. With the right stakeholders at the table, effective solutions to challenges are not always about more money.

This report invites you to explore and discuss the elements that create vibrant, resilient, and equitable communities, through data, through emergent research and examples, and through lived experience and thus lived expertise, so that we can collectively help to ensure a healthier and more vibrant Arizona for all.

²⁰ For more information visit: <https://www.circlethecity.org/>.

An Emphasis on Equity

Vitalyst Staff

Place-, race-, gender-, social-, and economic-based inequities contradict the potential for vibrant communities. Advocates have been working toward greater equity for decades. Evidence of the connection between inequity and community capacity for vibrancy has continued to accumulate. Through the first seven months of 2020, COVID-19 and George Floyd's death are freshly fueling a sense of immediacy for action to meaningfully address race, gender, and social inequities. Regardless of whether that urgency to change now persists, the path to vibrant communities includes transforming policies, systems, and environments that impede a more equitable community.

Community inequities across the United States are the result of focused, systemic outcomes of structural racism, lack of educational and economic opportunities, chronic disinvestment, and intergenerational and historical trauma. In this regard, COVID-19's dramatic and disproportionate impact on the Navajo Nation is tragic and unsurprising. Native American tribal communities in the United States have long experienced systemic oppression and racism, whether that be through forced relocation, loss of land, forced assimilation practices, or federal policies that hinder rather than support tribal communities' well-being. The physical and psychological impacts of historical and intergenerational trauma are well documented, such as posttraumatic stress disorder, general loss of meaning and sense of hope, and internalized oppression,²¹ all of which decrease both individual and community well-being. In May 2020, the Navajo Nation was highlighted across the country as a hotbed for coronavirus cases, surpassing New York and New Jersey for highest per-capita infection rates in the U.S.²² Some reasons for this include lack of access to running water and living in a food desert, both of which mean that many people must travel far to acquire food and water, while also running the risk of exposure to other people while obtaining these necessities. When factoring in the high rates of unemployment, poverty, and comorbidities²³ found in many tribal communities, along with limited access to quality, affordable healthcare,²⁴ the picture begins to become a little clearer. These systemic issues are the result of generations' worth of oppression, racism, and lack of resources and funding, which in 2020 means the Navajo Nation is at a much higher risk for COVID-19, a highly contagious disease that most dramatically impacts the elderly and those with underlying chronic health conditions.²⁵

21 Substance Abuse and Mental Health Services Administration. (2014). "Tips for Disaster Responders." Retrieved from: <https://store.samhsa.gov/sites/default/files/d7/priv/sma14-4866.pdf>. Retrieved on 17 July 2020.

22 Silverman, H., Toropin, K., and Sidner, S. (18 May 2020). "Navajo Nation surpasses New York state for the highest COVID-19 infection rate in the U.S." CNN. Retrieved from <https://www.cnn.com/2020/05/18/us/navajo-nation-infection-rate-trnd/index.html>. Retrieved on 17 July 2020.

23 Comorbidity refers to the simultaneous presence of multiple diseases in an individual.

24 Certain zip codes in Navajo county have over 36% of individuals lacking health insurance. Source: U.S. Census American Community Survey 5-year estimates (2014-2018). Retrieved from: <https://reports.mysidewalk.com/6f751f7f36>.

25 Sequist, T. (6 July 2020). "The disproportionate impact of COVID-19 on communities of color." *New England Journal of Medicine*. Retrieved from <https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0370>. Retrieved on 17 July 2020.

The impacts of COVID-19 have not only disproportionately impacted the Navajo nation, the White Mountain Apache Tribe, and other tribal communities, but also other communities of color throughout Arizona, many of whom have experienced the negative effects of COVID-19 at higher rates than their white counterparts. For example, on a national scale, Black individuals are currently 2.5 times as likely to die from COVID-19 compared to Whites.²⁶ Unfortunately, though unsurprising, this issue is not unique to the coronavirus pandemic. Communities of color, specifically tribal communities, African Americans, and Latinos in Arizona have disproportionately worse health outcomes when compared to their White counterparts. While this report does not detail the physical, emotional, and mental impacts of structural racism, we want to acknowledge the intergenerational impact it has on the health outcomes of communities of color.²⁷ Structural racism shows up in many ways, and *this* is what we aim to illustrate throughout each chapter of this report, whether it be through food deserts, lack of access to affordable, quality housing and safe transportation options, or poor education outcomes. Data is incredibly important in addressing equity, as it is through disaggregated data that disparities are quantitatively revealed, so we have embedded this throughout each chapter while recognizing that these are highlights and do not capture the full story of any one community.

Beyond the timeliness of this topic in 2020 is the *timeless* need to embed equity into the larger conversation at the heart of the 113th Arizona Townhall: Creating Vibrant Communities. We cannot talk about one without discussing the other. In other words, we cannot have a vibrant community without also having an equitable one. By looking at this report through an equity lens, the focus is placed on those with the greatest disparities so that we can build vibrant communities for *all*.



To hear from those working on the ground to create vibrant communities in Arizona, subscribe to the Vitalyst Spark Podcast available on Spotify, Apple Podcasts, or wherever you get your podcasts.



For a deeper dive into the data behind the Elements of a Healthy Community wheel, visit the Vitalyst Health Data Dashboard. This dashboard takes you "behind the wheel" with interactive data maps, compelling data infographics, and stories from around the state.

26 The Atlantic. (2020). "The COVID racial data tracker." *The COVID Tracking Project*. Retrieved from: <https://covidtracking.com/race>. Access date: 7/31/2020. This statement reflects data that is current at the time this report is being written, July 2020.

27 Gee, G. and Ford, C. (2011). Structural racism and health inequities: old issues, new directions. *Du Bois Rev.* Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4306458/>. Access date: 7/20/2020.

The Role of Tribes and Tribal Relations in Creating a More Vibrant Arizona

Holly Figueroa, Health Choice Arizona

Miriam Jorgensen, Native Nations Institute, The University of Arizona

Joan Timeche, Native Nations Institute, The University of Arizona

Arizona's rich history begins with its Native inhabitants.²⁸ Since time immemorial, Native Peoples built their own vibrant communities in the region's river valleys, high deserts, mountains, and forests. Western archeologists affirm this long occupancy; they document ancestral Puebloan, Sinagua, Hohokam, Mogollon, and Patayan peoples living in the southwest more than 13,000 years ago.²⁹ By contrast, Arizona achieved statehood only in 1912.

The impact of American Indians' long-time presence in Arizona is both considerable and enduring. Numerous county, city, and town names derive from Indigenous words. Phoenix's earliest irrigation canals depended on Native peoples' engineering prowess. Many of the state's most-beloved tourist attractions are located on Indian lands. And through economic progress achieved over the last 20 years, tribes have become major regional employers and key contributors to the well-being of many predominantly non-Native communities.

European settlement has largely had the opposite effect on Arizona's Native communities: entire tribal populations have been relocated; Native peoples' access to their lands, waters, and resources has been severely constrained; Native children have been removed from their tribal homes; and state and federal government policies have created systems of discrimination that have made the mere survival of American Indian people and their communities a challenge.

Today, the 22 federally recognized Native nations that share a geography with Arizona are integral to the future of the state and to the vibrancy of Arizona communities – but the vitality of Arizona's Native people also depends on state, local, and organization leaders making decisions that support and sustain tribes. While this chapter explores these issues in a standalone fashion, interconnections matter: Arizona thrives when its tribal communities thrive.

Vibrant Tribal Communities

A vibrant tribal community is dynamic, opportunity-rich, and culturally strong. Community members, connected to one another through shared heritage and tribal citizenship, work together with leaders in tribal government, the commercial sector, and grassroots organizations to advance well-being, generate access to quality goods and services, ensure proper relationships with the nonhuman world, and uphold sustainable cultural values, so that the old, the young, and the generations yet to come all enjoy well-being, resiliency, and access to the tribe's way of life. Native youth have summarized these ideas well in their responses to the question, "When you have

28 The terms "American Indian," "Native American," "Native" and "Indigenous" are used interchangeably throughout this chapter. The terms "tribe" and "Native nation" are used interchangeably. The term "Native people" refers to all Native individuals, while the term "Native Peoples" refers to their collectives and is somewhat synonymous with "tribes."

29 Archaeology Southwest. (2020). *Ancient Cultures*. Retrieved from: <https://www.archaeologysouthwest.org/ancient-cultures/>. Access date: 7/17/2020.

children your own age, what kind of community do you want them to live in?" In their words, a vibrant tribal community is one "where our children are safe from drugs and crime; where people are healthy; where they have good educational and job opportunities; where their tribal government is strong and politically stable; where their land and resources are protected; where they have a voice and are heard; and where they speak their Native language and practice their cultural ways."³⁰

An Overview of Arizona Indian Country

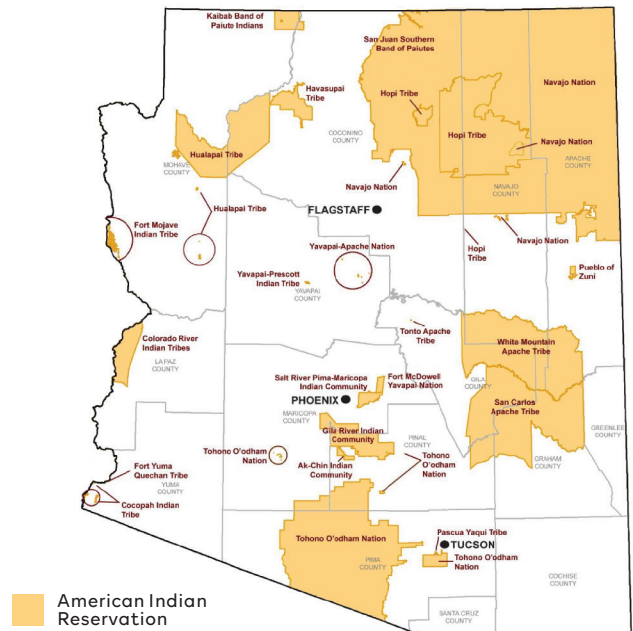
Twenty-two federally recognized tribes share geography with the state of Arizona.³¹ Despite jurisdictional overlap with federal, state, and county authorities, these Native nations hold sovereign status equivalent to – and in some ways exceeding – that of the state of Arizona itself.

QUICK FACTS³²

- **Population:** >353,000 Native Americans, nearly 7% of Arizona’s population, 3rd highest Native population in the U.S.
- **Languages:** Navajo, Apache, O’odham, Hopi, Yaqui, and other Pai & Yuman languages
- **Per capita income:** Pre-COVID-19 \$9,817 to \$19,169, 11 reservations with poverty levels of >35%
- **Unemployment on AZ reservations:** Pre-COVID-19, ranged from 6% to 75%, with an average of 21%
- **Land base:** Tribes control nearly 20 million acres, or 27% of Arizona’s overall land base. Tribes also own vast natural resources (forests, minerals, scenic & natural wonders, millions of acre feet of water)

Map source: Arizona Department of Transportation.

RESERVATIONS THAT SHARE GEOGRAPHY WITH ARIZONA



30 This quotation is a composite of responses collected by Joan Timeche during her many years working with Native youth.

31 The 22 Native nations that share geography with Arizona are: Ak-Chin Indian Community, Cocopah Indian Tribe, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Tribe, Gila River Indian Community, Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab-Paiute Tribe, Navajo Nation, Pascua Yaqui Tribe, Pueblo of Zuni, Quechan Tribe, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, San Juan Southern Paiute Tribe, Tohono O’odham Nation, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, and Yavapai-Prescott Indian Tribe. These 22 are among the 574 Native nations recognized by the United States government as of August 1, 2020.

32 The total population value comes from the 2010 Decennial Census, while socio-economic information is from the 2018 American Community Survey (ACS) 5-year averages (for 2014–2018). We made this choice because of the well-known tendency toward undercounting American Indians in the American Community Survey. Sources: Norris, T., Paula L. Vines, & Elizabeth M. Hoeffel. 2012. *The American Indian and Alaska Native Population: 2010*. Retrieved from: <https://www.census.gov/history/pdf/c2010br-10.pdf>. Access date: 7/17/2020; Campbell, L. (1997). *American Indian Languages*. Oxford University Press, Oxford, UK; U.S. Census. *American Community Survey Data Profiles*. (2018). Retrieved from: <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>. Access date: 8/2/2020; Natural Resources Council of Maine. (2005). *Public Land Ownership by State Augusta, ME*. Retrieved from: <https://www.nrcm.org/documents/publiclandownership.pdf>. Access date: 7/22/2020; U.S. Forest Service. (Apr 1997). *Appendix D: Indian Nations in Forest Service National Resource Guide to American Indian and Alaska Native Relations*. Retrieved from: <https://www.fs.fed.us/spf/tribalrelations/documents/publications/national-resource-guide-ver2.pdf>. Access date: 8/2/2020.

The 22 Native nations are diverse. Their cultures, traditions, and customary practices; languages spoken and language fluency; governmental forms; land bases, geography, and natural resources; and approaches to economic and community development all vary. Many share traits with rural communities; others are deeply embedded in Arizona’s urban landscapes. All are constantly influenced by western values and lifestyles, while also, to varying degrees, striving to sustain and reinvigorate their own Indigenous values and lifestyles. (Indigenous people refer to this navigation between western and Indigenous ways as “living in two worlds.”)

Among all U.S. states, Arizona’s Native population is the third largest. More than 353,000 Native Americans live in Arizona. A substantial number of these Native residents do not live on reservation lands. Approximately 44,000 live in Phoenix and 20,000 in Tucson, figures that rank these cities third and eleventh, respectively, among urban areas with large Native populations.³³ While some of these urbanites are citizens of Arizona tribes, others are not: education, employment, and quality of life opportunities draw Native people from across the United States to Arizona. This points to a population in flux. Strong ties to family, land, culture, and ceremony encourage many American Indians to move back and forth – over the course of a year or after several years – from off-reservation cities to “home” Native communities. In part, they are responding to the expectation that any knowledge and skills gained “abroad” will be invested back into their tribes.

Arizona hosts the third largest Native veteran population. Native Americans have a long history of serving in the U.S. military, a tradition begun even before American Indians were recognized as United States citizens (through the Indian Citizenship Act of 1924, which also secured American Indians the right to vote in U.S. elections). In 2015, 9,552 Native veterans lived in Arizona, the third largest AIAN veteran population in the United States.³⁴

Development choices vary by tribe. While all Native nations share a deep respect for the land, natural resources, and environment, they do not all make the same decisions concerning the development of these resources. Various Arizona tribes are involved in the agriculture, oil and gas, finance, outdoor recreation, hospitality, entertainment, and tourism industries, among others. In fact, tribes may have a disproportionate impact on Arizona’s tourism sector: more than half of the visitors to Arizona’s tribal lands (54.7%) report that “the tribe was main destination of their trip.”³⁵ Opportunities for eco-cultural tourism were a top reason why.

Profits from tribally owned businesses fund tribal governments. Tribal governments own many businesses in Indian Country and either manage those businesses directly or rely on their economic development authorities to do so. Such public sector business ownership is not typical in other Arizona communities but necessary for tribes because they lack the tax bases available to state, county, and municipal governments: net revenues from these businesses (including tribal casinos) help fund tribal government operations.

33 Norris et al., 2012.

34 U.S. Department of Veteran Affairs. (Aug 2017). *American Indian and Alaska Native Veterans: 2015 American Community Survey*. Retrieved from: <https://www.va.gov/vetdata/docs/SpecialReports/AIANReport.pdf>. Access date: 8/3/2020.

35 Arizona Hospitality Research and Resource Center. (2006). *Survey of Visitors to Arizona’s Tribal Lands, prepared for the Arizona Office of Tourism*. Retrieved from: https://tourism.az.gov/wp-content/uploads/2019/06/3.4_NicheTourismStudies_Statewide-NA-study-Executive-Summary-final.pdf. Access date: 7/22/2020.

Indian gaming benefits Arizona. Since the passage of the Indian Gaming Regulatory Act in 1988, tribal government-owned gaming enterprises have helped fuel economic growth for all Arizona tribes. In 2020, 16 tribes own and operate 25 casinos. The other six tribes do not have casinos but do have compacts with the state of Arizona providing them with an allocation of gaming machines, which they may lease to tribes with casinos. Each tribal government determines how to utilize its gaming proceeds, with essential tribal governmental operations, health, and education being typical tribal priorities. Some Arizona tribes opt to distribute a portion of these revenues to tribal citizens on a per capita basis. Not all tribes with casinos are “rich,” nor are their citizens; gaming revenues, like the revenues from other tribal enterprises, help tribes restore individual and governmental capacities that were stripped away through colonization. Moreover, tribal government-owned casinos do not solely benefit tribes. In 2014, tribal casinos contributed more than \$4 billion to Arizona’s economy (through direct, indirect, and induced effects), a figure that includes \$1.9 billion in wages to more than 37,000 Arizonans, most whom are non-Indian. Indian gaming also generated \$769 million in state and federal taxes and other payments to state and local government agencies.³⁶ “Other payments” include the one to eight percent of tribes’ net win, that by compacted agreement, must be paid to the state of Arizona for education, health care, and other programs and is split 88%-12% between the Arizona Benefits Fund and cities, towns, and counties. In fiscal year 2019, these other payments from Native nations the state totaled a record high \$111.3 million.³⁷

The economic dynamics of tribal gaming worsen COVID-19 impacts in Native communities. Since the onset of the COVID-19 pandemic, tribal casinos closed for weeks and re-opened only at reduced capacity. Tribal governments whose primary revenues are generated through gaming face significant financial shortfalls, resulting in a “triple punch” for some tribal citizens: extremely high transmission rates in Native communities combine not only with job furloughs and diminished wages but also with reductions in tribal government programs.

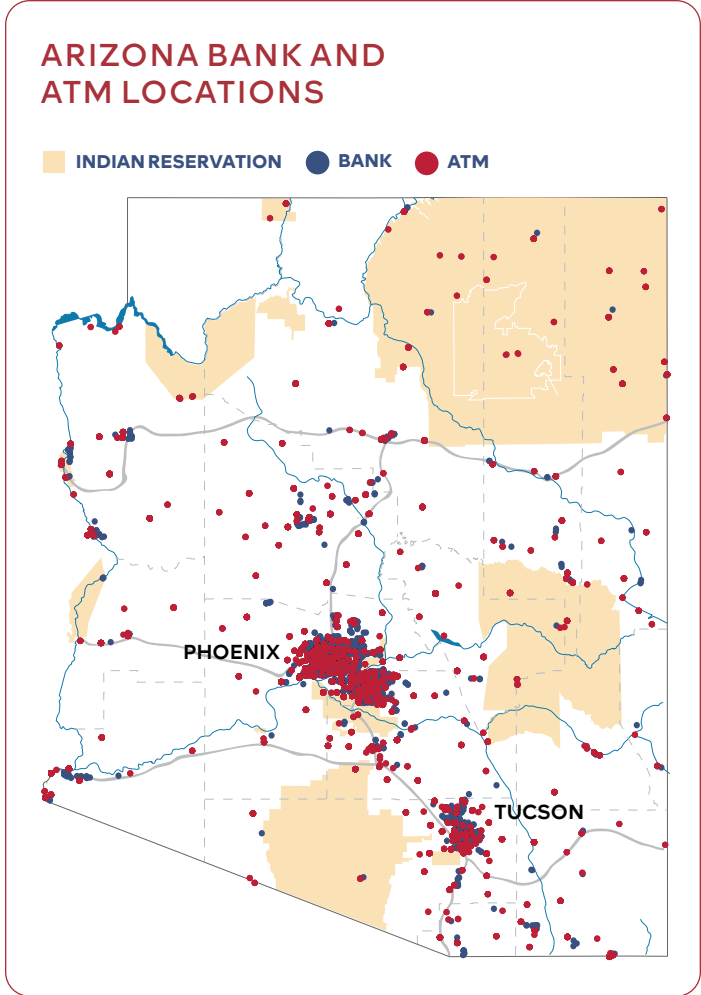
The private sector in Arizona’s Native communities is small. While the public sector tends to play a large role in Arizona’s Native communities, the on-reservation private sector is generally quite small. Many businesses are micro-enterprises, which makes them too small and too specialized to together meet tribal citizens’ needs, and as a consequence, tribal citizens often travel to nearby “border towns” for groceries, services, and entertainment. Under these circumstances, the lack of access to public or personal transportation can be a barrier to accessing shopping (as well as necessities such as healthcare). The primary exceptions to these conditions are the on-reservation shopping districts developed by the Salt River Pima Maricopa Indian Community and Yavapai-Prescott Indian Tribe, which reverse the flow and bring non-Indian shoppers to the reservations.

36 Meister, A. (Nov 2018). The Economic Impact of Tribal Gaming: A State-by-State Analysis. Retrieved from: <https://www.americangaming.org/wp-content/uploads/2018/11/Economic-Impact-of-Tribal-Gaming-Two-Pager-11.5.18.pdf>. Access date: 8/3/2020.

37 Arizona Department of Gaming. (2019). *Annual Report, Fiscal Year 2019*. Retrieved from: <https://gaming.az.gov/sites/default/files/ADG%20Annual%20Report%20-%20Fiscal%20Year%202019.pdf>. Access date: 7/17/2020.

Access to capital and credit are additional barriers to development.

On many of Arizona's rural reservations, cash and barter economies are the norm. Banks and even ATMs are few.³⁸ Securing a business or home loan can be difficult if one earns a cash income, has a poor credit history, and offers nontraditional collateral. In response to these challenges, the Hopi Tribe, Navajo Nation, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, and Tohono O'odham Nation have established Native community development financial institutions (CDFIs) to build the capacity of Native borrowers and fill lending gaps. Several other tribes administer revolving loan funds, and there is regional Native CDFI that offers services to Natives across Arizona. While credit score analysis reveals a larger gap between on-reservation and off-reservation credit scores in Arizona than in other states with large Native populations (80 points in 2012),³⁹ the credit landscape is improving. Related research shows that over the period 2013-2017, "exposure" to a Native CDFI improved credit outcomes for all low-score consumers, Native and non-Native, by an average of 45 points.⁴⁰



Native Americans pay taxes. Like all U.S. citizens, Native American individuals are subject to taxation, as are Native citizen-owned businesses operating off-reservation. In Arizona, only those Native Americans living and working on their reservations are exempt from state taxation.⁴¹ Tribal-owned enterprises enjoy the tax-free benefits of governments, much like business enterprises owned by municipal governments (e.g., a public golf course).

38 Jorgensen, M & Akee, K. Q. R. (2017). *Access to Capital and Credit in Native Communities: A Data Review*. https://nni.arizona.edu/application/files/6514/8642/4513/Accessing_Capital_and_Credit_in_Native_Communities__A_Data_Review.pdf. Access date: 7/16/2020.

39 Dimitrova-Grajzl, V., Grajzl, P., Guse, J., & Todd, R. M. (2015). *Consumer Credit on American Indian Reservations*. *Economic Systems* 39(3): 518-540.

40 Dimitrova-Grajzl, V., Grajzl, P., Guse, J., & Kokodoko, M. (2020). *Community Development Financial Institutions and Individuals' Credit Risk in Indian Country Working Paper*. Federal Reserve Bank of Minneapolis.

41 Arizona Department of Revenue. (29 May 1996) *Arizona Individual Income Tax Ruling Ltr 96-4*. Retrieved from: https://azdor.gov/sites/default/files/RULINGS_INDV_1996_itr96-4.pdf. Access date: 7/17/2020.

Indian educational outcomes lag behind statewide outcomes.⁴² In 2014, American Indian and Alaska Native children in Arizona constituted 5.6% of statewide school enrollment, with 80.8% of Native children attending public schools, 6.5% charter schools, and 12.6% Bureau of Indian Education (BIE) or tribally controlled schools. Twenty-four percent of Arizona’s Native students attend rural schools, and 44% are in poverty. Arizona’s American Indian students appear to struggle in these environments: 11% of Native fourth-grade students demonstrated proficiency in math on the National Assessment of Educational Progress compared to 30% of all Arizona fourth graders; 15% of Native eighth-grade students demonstrated proficiency in reading compared to 35% of all Arizona eighth graders; and 63% of Native students graduate from high school compared to 87% of White students.

Some tribal funding for Arizona schools is unavailable to tribal schools. The BIE operates 18 K-12 schools in Arizona and funds 36 more tribally controlled schools.⁴³ While BIE-operated schools spend more money per pupil than public schools (the national average is 56% more), the sound reasons for these differences, including student socioeconomic profiles (see above) and the schools’ remote locations and small sizes,⁴⁴ may also suggest that these “high” spending levels are still too low. The coronavirus pandemic has laid bare this concern; if students lack computers and access to broadband, how can BIE-controlled and BIE-funded schools engage students in online learning unless they support the supply and build-out of needed technologies? These resources may be available through federal assistance, although the record to date is poor.⁴⁵ By contrast, public schools in Arizona have funds to tap for such purposes. Quarterly contributions from Native nations’ gaming revenues to the state’s Instructional Improvement Fund range from \$12-13 million each quarter.⁴⁶ These

ARIZONA STUDENT PROFILE

YOUNG CHILDREN

6%

of Arizona population age 18 & under is American Indian.

7,000

American Indian children between the ages of 0-5 live in Arizona.

HIGHER EDUCATION

2,200

students are served by tribal colleges in Arizona.

7.2%

of American Indians in Arizona have a Bachelors degree or higher.

COMMUNITY

87%

of schools with a high proportion of Native students hosted community members to share Native culture and traditions.

35%

of American Indians in Arizona do not have access to a personal computer.

42 Data source for paragraph: National Indian Education Association. (2017). *State Profile: Arizona*. Retrieved from: <https://static1.squarespace.com/static/5cfff319973d7000185377f/t/5e3b3073ff74cd2b8b4b3d5d/1580937333197/NIEA-StateProfileStats-Arizona-Production-v2.pdf>. Access date: 7/27/2020.

43 Bureau of Indian Education. (n.d.). *BIE Schools Directory*. Retrieved from: <https://www.bie.edu/schools/directory>. Access date: 8/3/2020.

44 Government Accountability Office. (13 Nov 2014). *Bureau of Indian Education Needs to Improve Oversight of School Spending GAO report 15-121*. Retrieved from: <https://www.gao.gov/products/GAO-15-121>. Access date: 8/3/2020.

45 Henson, E., Hill, M., Jorgensen, M. & Kalt, J.P. (24 Jul 2020). *Federal COVID-19 Response Funding for Tribal Governments: Lessons from the CARES Act COVID-19 Response and Recovery Policy Brief #5*. Retrieved from: https://ash.harvard.edu/files/ash/files/policy_brief_5-cares_act_lessons_24july2020_final_for_dist.pdf?m=1595612547. Access date: 8/3/2020.

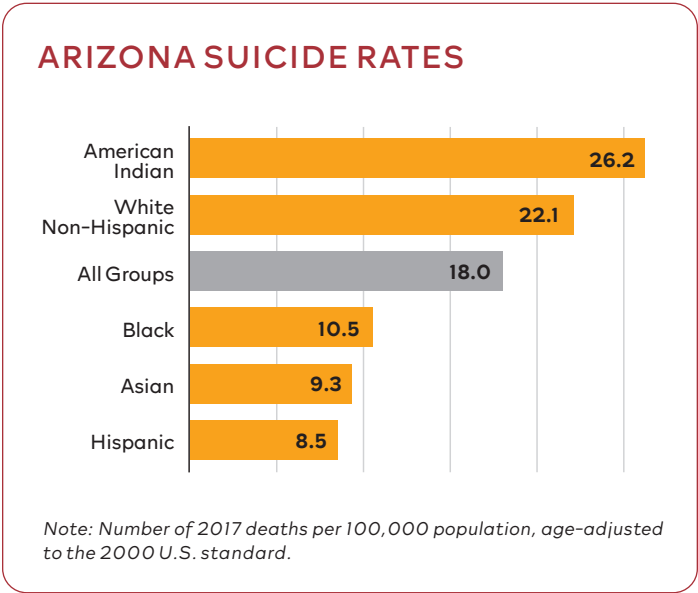
46 See, for example, Staff reporter. (2 Aug 2018). *Tribal Gaming Contributions Continue Growth*. <https://arizonadailyindependent.com/2018/08/02/tribal-gaming-contributions-continue-growth/>. Access date: 8/3/2020.

monies may be used for teacher compensation, maintenance and operations, dropout prevention, and instructional improvement programs. However, "...none of these funds are specifically targeted for Indian education."⁴⁷

One bright spot in the overall education picture is the growth and development of the tribal college and university (TCU) sector. Arizona boasts three TCUs on tribal lands: Dine College, founded in 1968; Tohono O’odham Community College, founded in 1998; and San Carlos Apache College, founded in 2017.

Housing is inadequate both on and off reservations. In the United States as a whole, 40% of on-reservation housing is considered substandard, compared with 6% outside of Indian Country.⁴⁸ Nearly one-third of reservation homes are overcrowded, and fewer than half are connected to public sewer systems. Increasing the supply of quality homes is difficult; inventory is constrained by low-functioning housing markets in Indian Country, limited federal appropriations for Native community rental housing, and a lack of tribal land set aside and prepared – with infrastructure – for housing development. These conditions not only create scarcity and but also threaten the affordability of housing on reservations. Housing problems on tribal lands in the Arizona/ New Mexico region rank second only to housing problems in Alaska Native villages.⁴⁹ Forty-three percent of all Indian households living on reservations in Arizona/ New Mexico and 58% of low-income Indian households reported at least one housing problem—where the problems studied were plumbing deficiencies, overcrowding, and lack of affordability. Affordability and lack of financing options on reservations in Arizona are evident in data on manufactured housing: over the period 2012-2016, more American Indian borrowers residing on Arizona reservations applied for manufactured housing loans, and more were denied such loans, than in any other U.S. state.⁵⁰

Native Americans face a number of health challenges. In 2018, American Indians resident in Arizona "... ranked worse than the statewide average on 50 of 65 health indicators."⁵¹ The data show high mortality rates, a high incidence of adverse maternal



47 Arizona Department of Education Accountability & Research Division and the Office of Indian Education. (2019). *Arizona 2018 Arizona Indian Education Annual Report*. Retrieved from: <https://www.azed.gov/oie/files/2019/11/8.28.19-AZ-2018-Indian-Education-Annual-Report.pdf>. Access date: 7/27/2020.

48 All national-level statements concerning housing are drawn from: National Congress of American Indians. (2020). *Housing and Infrastructure*. Retrieved from: <http://www.ncai.org/policy-issues/economic-development-commerce/housing-infrastructure>. Access date: 7/30/2020.

49 Biess, J., Hayes, C., Kingsley, Levy, D., T. G., Pindus, N., Nancy Pindus & Simington, J. (Jan 2017). *Housing Needs of American Indians and Alaska Natives in Tribal Areas: A Report From the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs*. Retrieved from: <https://www.huduser.gov/portal/sites/default/files/pdf/HNAIHousingNeeds.pdf>. Access date: 8/4/2020.

50 Johnson, K. & Todd, R. M (4 Dec 2018). *Race, Location, and Manufactured-Home Loans on American Indian Reservations*. Retrieved from: <https://www.minneapolisfed.org/article/2018/race-location-and-manufactured-home-loans-on-american-indian-reservations>. Access date: 8/4/2020.

51 Arizona Department of Human Services. (2018). *Health Status Profile of American Indians in Arizona: 2018 Data Book*. Retrieved from: https://pub.azdhs.gov/health-stats/report/hspam/2018/part_1.pdf. Access date: 7/27/2020. For more information on suicide rates see *Arizona Department of Health and Human Services Suicide and Self-Inflicted Injury: Arizona, 2006-2017*. <https://pub.azdhs.gov/health-stats/report/suicide/2018/suicide-report-12-2018.pdf>. Access date 7/24/2020.

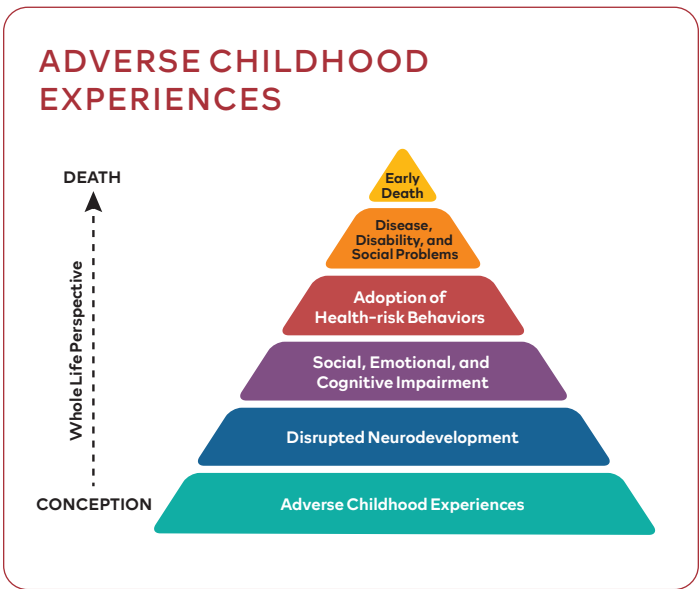
lifestyles, high rates of violence and injury, and high rates of specific debilitating diseases. For example, among American Indians, the 2018 suicide rate was 1.87 times higher than the all-Arizona rate, the poor prenatal care (fewer than five visits) rate was 2.08 times higher, the unintentional injury rate was 2.56 times higher, the assault rate was 2.93 times higher, the septicemia rate was 3.05 time higher, the diabetes rate was 3.20 times higher, the young adult mortality (ages 20-44) rate was 3.26 times higher, and the motor vehicle-related injury rate was 4.31 times higher.

Arizona’s Native children endure high rates of adverse childhood experiences, which affect adult behavioral health.

Adverse childhood experiences (ACEs) are traumatic events experienced before the age of 18 and remembered as an adult. In adults, they are associated with negative effects on social, cognitive, and emotional development.⁵² Arizona’s Behavioral Risk Factor Surveillance System shows that in 2014, 72% of American Indians experienced at least one ACE, which is the highest exposure rate among all Arizonans.⁵³ This disproportionality is in line with other behavioral health disparities Native Americans suffer, including high rates of posttraumatic stress, depression, and substance abuse. Through epigenetic responses, ACEs may even be a contributing factor to those later-in-life health problems.⁵⁴

Per person federal spending on Indian health care is one-third the amount spent on other Americans.

Health care on reservations in Arizona may be provided directly by the Indian Health Service (IHS) or by a tribe or Native nonprofit that receives funding via a contract from the IHS. IHS direct and contracted facilities range from small ambulatory care clinics to full-service hospitals, most of which are located on reservations. In total, 37 medical health



LOCATION OF INDIAN HEALTH SERVICE FUNDED MEDICAL FACILITIES IN ARIZONA

	On-rez	Off-rez	Total
Indian Health Service direct service program	13	1	14
Tribally operated contract programs	18	3	21
Urban Indian health programs	0	2	2
Totals	31	6	37

52 Felitti, V. J. (1998). *Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study*. American Journal of Preventive Medicine 14(4), 245-258.

53 Arizona Department of Health Services. (2015). *Adverse Childhood Experiences in Arizona: Findings from the 2014 Arizona Behavioral Risk Factor Surveillance System*. <https://www.azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/issue-briefs/ACEs-report-2014.pdf>. Access date: 7/24/2020.

54 Brockie, T., Gill, J. & Heinzlmann, M. (9 Dec 2013). *A Framework to Examine the Role of Epigenetics in Health Disparities among Native Americans*. Retrieved from: <https://doi.org/10.1155/2013/410395>. Access date 8/4/2020.

facilities (clinics and hospitals) serve Native Americans in Arizona.⁵⁵ Although tribal citizens have access to health care as a matter of right,⁵⁶ two 21st century reports by the U.S. Commission on Civil Rights have cited health care as egregiously underfunded by the U.S. government.⁵⁷ In 2017, for example, "IHS health care expenditures per person were \$3,332, compared to \$9,207 for federal health care spending nationwide."⁵⁸ Tribes feel strongly that more funding would create better health outcomes for Arizona's tribal citizens – which is a key reason why, despite the obligations of the U.S. government, some Arizona tribes invest their own revenues in health care programming.

Arizona is among the top three states nationally for missing and murdered Indigenous women and girls cases. The Missing and Murdered Indigenous Women (MMIW) movement calls attention to the vulnerabilities of Native women to violence and crime and to a lack of law enforcement commitment to learning their fates. For 2016, for example, the National Crime Information Center recorded 5,712 reports of missing Native women and girls; by contrast, the U.S. Department of Justice's missing persons database logged only 166 cases.⁵⁹ Murder is the third-leading cause of death among American Indian and Alaska Native women and girls age 19 and younger,⁶⁰ and American Indian and Alaska Native women are up to twice as likely to be sexually assaulted than women in the general population.⁶¹ Among 71 cities across the U.S. for which MMIW data were gathered, Phoenix, Flagstaff, Tempe, and Tucson together contributed 52 of the 506 cases uncovered, placing Arizona in the top three states for MMIW. Tucson ranked fourth on the list of cities with the most cases.

Native Americans vote, but not without obstacles. In Arizona, Native Americans did not have right to vote until 1948, when the Arizona Supreme Court overturned an earlier ruling (in *Harrison v. Laveen*) banning them from voting. By employing literacy tests, the state continued to prevent Native people from participating in elections until 1975, when the prohibition of such tests became a permanent part of the Voting Rights Act. Since then, Native Americans have faced continued, albeit different, difficulties voting in Arizona. The Arizona voter identification law, which resulted in a sharp decrease in Native voters in 2006, has been one method.⁶² Under the law, Arizona residents must present a valid ID, with a photograph and with an address that both matches poll records and a physical residence. Especially on large, rural reservations, the latter requirement is onerous, as "addresses" may be more directions than street numbers ("2 miles from

55 Arizona Health Care Cost Containment System. (Dec 2015). *Indian Health Service (IHS), Tribally Operated 638 Programs, and Urban Indian Health Programs in Arizona*. Retrieved from: <https://www.azahcccs.gov/Shared/Downloads/ITUList.pdf>. Access date: 8/4/2020.

56 Indian Health Service. (Jan 2015). *Basis for Health Services*. Retrieved from: <https://www.ihs.gov/newsroom/factsheets/basisforhealthservices/>. Access date: 8/4/2020.

57 U.S. Commission on Civil Rights. (2003). *A Quiet Crisis: Federal Funding and Unmet Needs in Indian Country*. Retrieved from: <https://www.usccr.gov/pubs/na0703/na0204.pdf>. Access date: 8/4/2020; U.S. Commission on Civil Rights. (2018). *Broken Promises: Continuing Federal Funding Shortfall for Native Americans*. Retrieved from: <https://www.usccr.gov/pubs/2018/12-20-Broken-Promises.pdf>. Access date: 8/4/2020.

58 Ibid.

59 Urban Indian Health Institute. (2018). *Missing and Murdered Indigenous Women & Girls*. Retrieved from: <http://www.uihi.org/wp-content/uploads/2018/11/Missing-and-Murdered-Indigenous-Women-and-Girls-Report.pdf>. Access date: 7/23/2020.

60 Centers for Disease Control and Prevention. (2019). *Leading Causes of Death – Females – Non-Hispanic American Indian or Alaska Native – United States 2016*. Retrieved from: <https://www.cdc.gov/women/lcod/2016/nonhispanic-native/index.htm>. Access date: 8/4/2020.

61 Rosay, A. B. (2016). *Violence Against American Indian and Alaska Native Women and Men: 2010 Findings from the National Intimate Partner and Sexual Violence Survey*. Retrieved from: <https://www.ncjrs.gov/pdffiles1/nij/249822.pdf>. Access date: 8/4/2020.

62 See, for example: Ferguson-Bohnee, P. (2016). *The History of Indian Voting Rights in Arizona: Overcoming Decades of Voter Suppression*. Retrieved from: http://arizonastatelawjournal.org/wp-content/uploads/2016/02/Ferguson_Final.pdf. Access date: 7/17/2020; and, Indian Legal Clinic. (6 Mar 2018). *Native Vote – Election Protection Project, 2016 Election Report*. Retrieved from: <https://law.asu.edu/sites/default/files/pdf/2016-native-vote-election-protection-report.pdf>. Access date: 7/24/2020.

post 50 on Hwy 264”). The list goes on: county election administrators must know precisely where voters live in order to provide the correct ballots and to direct voters to the correct polling places; mail-in voting is less feasible when the post office is an hour away and the process of retrieving, filling out, and returning a ballot requires multiple trips; and, if the voter has limited proficiency in English, Indigenous language services will be necessary in order for that individual to exercise the franchise. In the 2016 general election, on half of the reservations in Arizona where voter participation was tracked, turnout was less than 50%.⁶³

Government-to-Government Relations

Good government-to-government relationships are built on a foundation of understanding. As many reservations are neighbors to Arizona towns and cities, that includes an understanding among state and municipal elected and civic leaders of tribal government. Indigenous peoples have always governed themselves. Over time, many Arizona-based tribes have adapted their governing systems to address changing circumstances, but within these systems, tribal citizens continue to use their values to solve problems, resolve disputes, and advance their priorities. Today, most tribal governments in Arizona appear similar to western governments, with legislative, executive, and judicial branches – although four of the Hopi Tribe’s 12 villages continue to use traditional forms of government and the Navajo Nation employs customary law alongside contemporary Navajo law.⁶⁴

Tribes are sovereign nations. As sovereigns, the powers of tribal governments are vast and include, among others, the power to establish citizenship criteria, determine governmental form, make and enforce law (including tax law), resolve disputes in their own courts, and develop and regulate their lands, waters, and other natural resources. However, tribes’ capacities to exert these powers tend to vary by population, territorial expanse, government revenues, and administrative prowess.

The success of an intergovernmental project or relationship often turns on a partner government understanding the types of decision makers within tribal government. With this knowledge, it is easier to approach the right “level” of tribal decision-maker needed to make the collaboration work.⁶⁵

- The tribal council or legislature is the official governing body or decision-making entity within tribal government. The majority of Arizona tribes elect tribal council members as representatives of political subdivisions of the nation, such as a district, chapter, or village. Terms of office vary by tribe.
- A tribe’s top elected official may be called the president, governor, or chairman,⁶⁶ and is assisted by a vice president, lieutenant governor, or vice chairman. Some top elected officials have considerable decision-

63 Indian Legal Clinic, 2018.

64 For anyone interested in learning still more, two useful resources are the website of the Native Nations Institute at the University of Arizona (www.nni.edu), which provides users with an array of ways to learn more about tribal governments, and *Rebuilding Native Nations: Strategies for Governance and Development* (edited by Miriam Jorgensen and published by the University of Arizona Press in 2007), which describes the ways Native nations are working to strengthen their foundations, develop stronger and more capable governments, become better partners with other polities, and thereby serve their citizens better.

65 The points shared here derive from the Native Nations Institute’s long experience working in partnership with tribes.

66 Those that use the term “president” are the Fort McDowell Yavapai Nation, Quechan Tribe, Navajo Nation, San Juan Southern Paiute Tribe, Salt River Pima-Maricopa Indian Community, and Yavapai-Prescott Indian Tribe. Those that use the term “governor” are the Gila River Indian Community and Pueblo of Zuni. The remainder use the term “chairman.”

making authority as provided in their nations' constitutions, while others may be limited to those powers delegated by the council. These top two positions are elected at large by tribal citizens and upon election, serve three- to four-year terms.

- The tribal council may delegate decision-making authority in areas related to housing, land, realty, natural resources, etc., to the executive or administrative branch or to specialized commissions, boards, or authorities that are both part of, and separate from, the tribal government. Some Arizona tribes are subdivided into districts, chapters, or villages that have their own governments and operate much like counties or municipalities. Thus, approval from the governing body of a district, chapter, or village may be the first step when seeking a relationship (for development or other purposes) with a tribe.
- In some tribes, governmental action requires the official sanction of non-elected leaders such as religious or clan leaders.
- Three other important but non-tribal decision-makers are the U.S. Department of Interior Bureau of Indian Affairs (BIA), BIE, and IHS. These federal agencies either deliver core governmental functions and services directly or fund tribes who choose to contract with the federal government to take over administration of a particular funding stream (e.g., a tribe may contract with the U.S. government to manage the funding stream supporting policing, health care, social services, education, etc., on the reservation).
- Lastly, attention always should be paid to those with implicit authority, such as individuals with traditional land use rights. These individuals may simply be identified as community-member "stakeholders" but nonetheless may have significant license to review and approve projects, research, changes, and deliverables.

Indian Country jurisdiction is complex. While tribes in Arizona have their own Law and Order codes, police and law enforcement divisions, and courts, and 13 Arizona tribes also have detention facilities,⁶⁷ no two tribes are alike in their ability to engage in justice activities. These differing capacities overlay what many have termed a "jurisdictional maze": Native nations, the federal government, and the state of Arizona share law enforcement functions on tribal lands, with each having different, although sometimes overlapping, responsibilities. The federal government has jurisdiction over major crimes committed on tribal lands if either the alleged perpetrator or victim is a member of an Indian tribe. Tribal governments in Arizona take responsibility for all other criminal infractions by Indians and may enact a full complement of civil laws that Indian and, in general, non-Indians must obey. Finally, the state of Arizona has jurisdiction over non-Indians who commit crimes against other non-Indians on tribal lands. Matters become more complicated if a tribe opts to exercise concurrent jurisdiction over major crimes against Indians on tribal lands or to create civil penalties to govern the behavior of non-Indians on tribal lands. Similarly, the federal government and state of Arizona may hold authority over roads, rivers, rights of way, etc. that cross reservations. Alleged criminals may flee from state lands to tribal lands, and vice versa. The demand for government-to-government relationships in law enforcement is substantial.

67 Cowhig, M. & Minton, T. D. Todd D. (5 Dec 2017). *Jails in Indian Country, 2016*. Retrieved from: <https://www.bjs.gov/index.cfm?ty=pbdetail&iid=6146>. Access date: 8/4/2020.

Indian Country has a unique system for public finance. Because of the trust status of their lands and the fact that Arizona has asserted primacy over many forms of taxation, tribes do not – as noted above – have the same kind of tax bases that states and municipalities do. Instead, tribal governments rely on federal and state programs, private and non-profit entities, revenues from their business endeavors, and, to the extent possible, modest tax and fee strategies to support governmental functions and provide needed services. In other words, tribes have long been required to be more innovative than other governments in order to fund their operations and meet the needs of their citizens.

The Native non-profit sector is growing. Both on and off reservations, the number of Native-serving non-profit organizations has been growing. A recent uptick occurred as a result of the COVID-19 pandemic. Because charitable contributions typically flow to certified non-profit corporations, only tribes with a pre-existing 501c3 organization were in a position to accept these gifts. Looking to these examples, other tribes moved to catch up. In other cases, donations flowed to newly established, independent, COVID-19-specific fundraising organizations. The end result has been sector growth and improved channels for both government-to-government and community-to-community collaboration across jurisdictional lines.

Challenges Heightened by COVID-19

Even *prior* to the COVID-19 pandemic, many Arizona Native nations faced the challenges of unemployment and poverty, health disparities, vexing social issues, inadequate physical infrastructure, and poor-quality housing. While nothing about the pandemic is good for Indian Country, it has made these issues more visible to all Arizonans: more and more Arizona residents are gaining awareness of the high rates of COVID-19 infection suffered by their tribal neighbors, as well as of the disparities between Native and non-Native communities that exacerbate spread and make containment more difficult.

The following is an incomplete list of both new and ongoing challenges for tribes as a result of the new coronavirus:

- **Funding for essential tribal government operations has become scarce.** As a result of the pandemic, tribal enterprises were shuttered, tribal government revenues plummeted, and the demands on tribal treasuries mounted for protective equipment, remote learning support, and food and water. Federal relief arrived, but only after a lengthy wait (longer than that experienced by states and municipalities), caused in part by U.S. Department of the Treasury's use of an arcane allocation methodology. Re-opening has begun, but occupancy restrictions and consumer confidence continue to suppress tribal earnings, while the demand for essential government functions is as great as ever.

- **Clean water is not always available.** On some reservations, it has long been a struggle to access clean water. During this pandemic, one of the main messages has been to wash hands often. Without accessible, uncontaminated water, tribal governments have had to address the issue with creative thinking, such as providing portable hand washing stations. Nonetheless, this very short-term solution begs for a long-term, sustainable approach.
- **Broadband and telecommunications equipment are required for education and employment.** The closure of schools and businesses and a reduction in some health care services have impacted tribal communities across the nation. In Arizona, some tribal communities lack computer equipment and broadband capability that can support employment, allow youth to continue their schooling, provide the option of telehealth visits, and keep families connected. It may be particularly important to shift some attention to small tribes, whose technology capacity-building challenges loom large even though their population numbers do not.
- **Poor quality roads hinder response and recovery.** Roads on tribal lands connect people to essential services, including schools and healthcare. Unfortunately, they often are unpaved and not well maintained, and bad weather can easily make them unpassable for days. Funding constraints and overlapping jurisdictions make improving and maintaining roads on tribal lands challenging – and at the same time, mandate intergovernmental collaboration for solutions. In this pandemic, poor roads have curtailed tribal governments' abilities to be responsive; in the next, better roads could contribute to Native communities' resilience.
- **Access to health care is complex.** While it has many entry points, the Indian health system is complex: tribal members in need of care can seek services from a tribally funded provider, from the federal Indian Health Service, through the Arizona Health Care Cost Containment System, or from a private provider. A collaborative effort across tribal, federal, and state systems could help tribal citizens better understand their options and access more appropriate care. It might also streamline and coordinate services, saving money for all payers. For example, the Havasupai must carefully coordinate health care, as the helicopter flies into the Grand Canyon on a limited number of days, and round-trip transportation and lodging often must be secured at short notice. Telemedicine may also offer opportunities for complementary action; there are large connectivity and training gaps that are difficult for any one system to fill but that all might benefit from.
- **The "food desert" problem has become more acute.** The U.S. Department of Agriculture defines a food desert as an area where people have limited access to a variety of healthy and affordable food. Because of the pandemic, tribal citizens already suffering from the loss of local agriculture and who had become resigned to long trips to the grocery store now find it harder to make such trips. When they do reach the store, they face even higher prices, reduced selection, and less healthy choices. Students reliant on school breakfasts and lunches also experience worsening diets in the move to remote learning. There is renewed energy around educating young people about planting and gathering, and momentum is building, but change takes time and will not solve the immediate food crises.

The Power of Collaboration

Native nations that share geography with the state of Arizona imagine a future in which they dynamically engage with other Native and non-Native communities to strengthen their citizens, cultures, and economies. There is an opportunity for Native and non-Native communities in the state to work together toward that vibrancy. The following list provides guidance for those interested in cultivating or strengthening meaningful collaboration with tribes:

- Respect and understand tribal sovereignty when developing partnerships. Tribes govern themselves and have many of the same powers that federal and state governments do to regulate their own affairs.
- Recognize the unique character of each of the 22 tribes that share geography with the state of Arizona; not all tribes are the same. The Native nations in Arizona vary in location, population size, language, and cultural beliefs, although many have similar stories and teachings.
- Incorporate an orientation to the American Indian tribes in Arizona into your work or project. This would include an overview of tribal history; an overview of tribal, western, and traditional government structures; information about funding streams; and an introduction to various tribes' locations, languages, beliefs, and values. Staff of tribal programs or businesses, Native faculty and staff at Arizona colleges and universities, or staff of Native-serving nonprofits may be good connections and may have presentations at the ready.⁶⁸
- Consider hiring a Cultural Broker/Tribal Liaison. This staff member could strengthen your organization by offering guidance and insight related to Arizona tribal nations. When meeting with a tribe, especially at an initial introductory meeting, it is strongly encouraged that the meeting be in person and on the tribe's lands (as long as such an invitation is made). A Tribal Liaison can help educate your team about these cultural protocols and better prepare your organization to earn the respect and trust of tribal partners.
- Work to improve tribes' eligibility for and access to state and pass-through federal funding. Providing improved eligibility and accessibility to federal and state funding for programs and services helps establish tribal governments on a more even footing with non-tribal governments.

QUICK TIPS

- Uphold and value tribal sovereignty
- Abandon your presumptions
- Learn about each other's government and community
- Have respect and act respectfully
- Forge meaningful and lasting relationships
- Work toward equity in funding and programming

Quality, impactful collaboration requires hard work. This includes making a real commitment to understanding each other's policies, culture, infrastructure, situation, and constraints. The learning process is part of the investment in, and nurturing of, a lasting relationship, one that extends beyond the current project or immediate

⁶⁸ Contact one of Arizona's universities, tribal colleges, or tribal nonprofits. As an example, the Native Nations Institute at the University of Arizona has an existing "Native Know How" non-credit seminar from which a significant portion of this chapter was derived.

challenge. Remarkably, the COVID-19 crisis creates space for such relationship building: the cooperation, friendships, and ventures developed through this crisis strengthen partnerships and provide opportunities for future collaboration. Tribal governments, their communities, the state of Arizona, counties, and municipalities, and every individual citizen of the state, are pieces of the Arizona puzzle. When all of these pieces are put in place and work together, Arizona may realize its most vibrant vision for all of its peoples. As a tribal elder instructed: “Tell me and I’ll forget. Show me, and I may not remember. Involve me, and I’ll understand.”

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Resilience and Vibrant Communities

Dr. Patricia Solís and Dr. Elizabeth Wentz, ASU Knowledge Exchange for Resilience

Dr. David Hondula, ASU School of Geographical Sciences and Urban Planning

This topic intersects and explores these elements of a vibrant community:



Introduction

All communities face unanticipated shocks. To build and maintain vibrancy, communities must build resources and systems for resilience. A resilient community is distinguished by the way it can respond to profound stresses and abrupt shocks – even in the face of long-term stressors such as stagnant wages, aging infrastructure, chronic hunger, substance abuse, demographic changes, and workforce challenges. That shock might be a climate disaster (fire, drought, excessive heat, flood), or an economic/civic event (market “crash,” housing bubble, racial crisis). In 2020, as Arizona works to understand and address COVID-19, that shock – no longer hypothetical – is a pandemic.

Two effects tend to consistently rise to the forefront during unanticipated shocks:

1. Collective vulnerability increases because shocks expose the interdependencies of work, education, childcare, economic stability, housing, food, and other elements of a healthy community.
2. Shocks disproportionately impact the state’s most vulnerable communities – people disadvantaged by geographic bias (e.g. tribal, rural vs. urban), policies and systems (e.g. zoning, redlining, lack of political power), a history of under- or dis-investment (at municipal, state, and federal levels), and discrimination based on race, gender identity, status, or ethnicity. All these factors together contribute to Arizonans who present as vulnerable at very young or very old ages, at low- and moderate-incomes, or when experiencing a disability. Unfortunately, vulnerable communities tend to lack the social, economic, or physical capacity to withstand stresses and shocks.

A striking example of how these two effects have played out during the present COVID-19 pandemic is the public health crisis’ disproportionate impact on the Navajo Nation. The Navajo people are among the most resilient communities in Arizona, having withstood a long history of systematic oppression impacting traditional lands, culture, heritage and natural resources for more than 250 years. The shock of the pandemic exacerbated and exposed multiple elements of vulnerability that led to one of the highest per capita COVID-19 infection rates in the country.⁶⁹ Similarly, in other contexts across the state, infection rates among marginalized groups are consistently higher as well.⁷⁰

As COVID-19 makes evident, resiliency is an important lens for developing and maintaining vibrant communities.

69 Sedgwick, J. (19 May 2020). *Navajo Nation Reports Highest Per-Capita COVID-19 Infection Rate in U.S.* Retrieved from: <https://www.fox10phoenix.com/news/navajo-nation-reports-highest-per-capita-covid-19-infection-rate-in-us>. Access date: 5/29/2020.

70 Golden, S. H. (20 Apr 2020). *Coronavirus in African Americans and Other People of Color.* Retrieved from: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid19-racial-disparities>. Access date: 5/29/2020.

Ingredients and Actions for Resilience

Judith Rodin, recent President of the Rockefeller Foundation, has identified that resilient communities are developed by becoming increasingly more:⁷¹

- **AWARE:** possessing knowledge of strengths and assets, liabilities and vulnerabilities, and threats and risks
- **DIVERSE:** leveraging different sources of capacity so the community can successfully operate even when elements of that capacity are challenged, drawing upon a range of capabilities, ideas, information sources, technical elements, people, or groups
- **INTEGRATED:** coordinating functions and actions across systems – including the abilities to bring together disparate ideas and elements, work collaboratively across elements, develop cohesive solutions, and coordinate actions
- **SELF-REGULATING:** operating in a way that it is “safe to fail,” where cascading disruptions do not result when the entity suffers a severe dysfunction
- **ADAPTIVE:** adjusting to changing circumstances and applying existing resources to new purposes or for one element to take on multiple roles

Aiming toward these characteristics creates a trajectory toward collective ability to bounce back quickly and effectively. When community resilience is done well, community dividends result. Dividends are the unanticipated positive benefits associated with a community response to a potential system shock. For example, a flood control system designed to also function as a community park (as opposed to restricted concrete infrastructure) creates community dividends of community gatherings, recreation, urban cooling, and natural habitats. Scottsdale’s Indian Bend Wash is such a project.

Actions that can advance community resilience include:

1. Identifying vulnerabilities, assets, and current response mechanisms proactively.
2. Collecting, analyzing, visualizing, and communicating knowledge using diverse data inputs.
3. Mobilizing a multi-sector network of collaborators capable of investing and responding.
4. Allocating human and financial resources for systemic/systematic impact and transformation.

These actions may help anticipate and prepare for both the expected and the unexpected across *all* communities. It is important to buffer against the threats to which Arizona is most susceptible, with responses that can improve collective well-being, make communities stronger, and generate more prosperity, even in times of relative normalcy.

Residents and organizations may benefit from working together across regional organizations, municipalities, and agencies to share, discover, and respond to shocks and stresses. This collaboration can lead to ways that help to collectively “bounce forward” and transform challenges into solutions.

71 Rodin, J. (2014). *The Resilience Dividend: Being Strong in a World Where Things go Wrong*.

How Resilient is Arizona?

In Arizona, economic and social data analysis reveals the need to increase community vibrancy and resilience:

- GDP has grown but at a rate lower than the national average.⁷²
- Per capita income has *decreased*.⁷³
- Arizona has the 10th highest poverty rate in the U.S.⁷⁴
- Arizona currently has a high school graduation rate of 78.02%, one of the lowest in the country.⁷⁵
- 45% of Arizona renters and 22% of homeowners pay more than 30% of their income toward housing.⁷⁶
- Between 2010 to 2015, the number of Arizonans with low access to a food store increased from 34.56% to 36.37%.⁷⁷
- Already, significant inequities and disparities are increasing, as evidenced by the cumulative effect on life expectancy by zip code.⁷⁸

This means that when health, environmental, social, or economic crises like those we face today inevitably occur, Arizona as a whole is more economically and socially vulnerable. Therefore, resilience is crucial.

Interdependent Elements Case: Excessive Heat, Income, and Housing in Maricopa County

Arizonans are at risk for drier, longer, and hotter conditions with implications to interrelated systems including health, economic opportunity, transportation, and housing. These are often referred to as cascading effects or threat multipliers.

The number of heat-related deaths reported in Arizona has risen dramatically in recent years. In Maricopa County, the 2017–2019 annual average number of heat-related deaths was more than twice as high as during the period 2013–2015, even after accounting for population growth. Arizona State University researchers did not find any strong evidence that 2017–2019 should have been more threatening based on outdoor weather conditions. Instead, they suggest that the trend must be driven by a deterioration of some key social systems and processes that represent the Elements of a Vibrant Community and community resilience. Contributing factors to the recent rise in heat-related deaths may be related to changing dynamics about the adequacy of shelter that vulnerable people may lack: indicators such as homelessness, less affordable housing, increased rent and utility prices, and growing eviction.

72 Bureau of Economic Analysis. (2020). Retrieved from: <https://www.bea.gov/>. Access date: 5/29/2020.

73 Ibid.

74 World Population Review. (2020). *Poverty Rate by State 2020*. Retrieved from: <https://worldpopulationreview.com/states/poverty-rate-by-state/>. Access date: 5/29/2020.

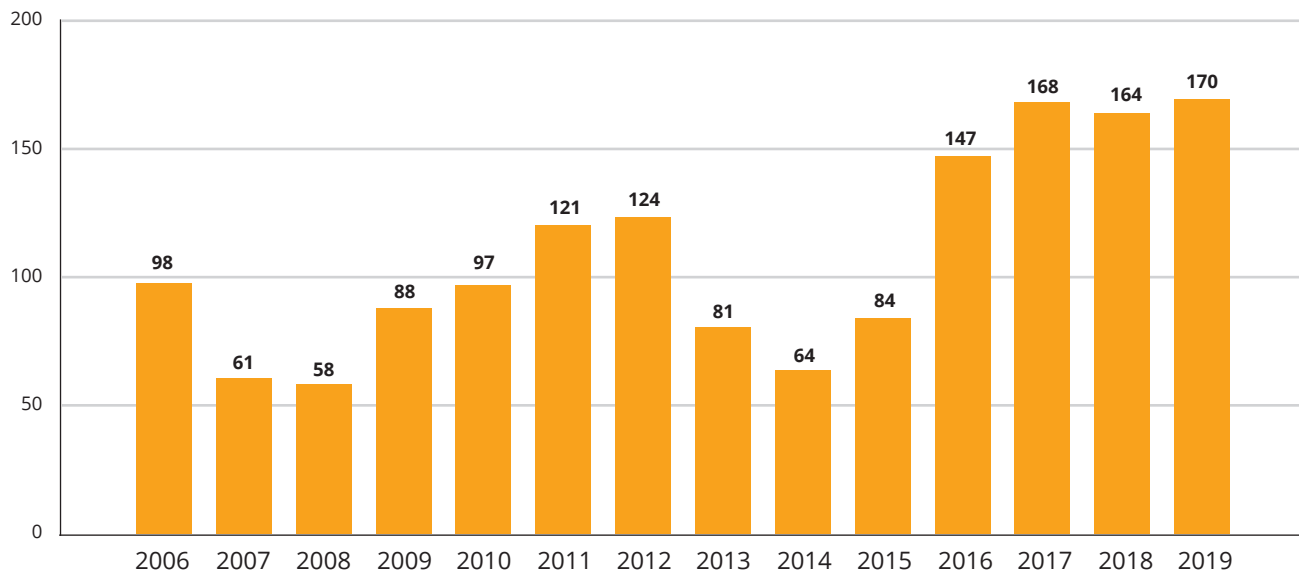
75 Arizona Department of Education (n.d.) AZ school report cards. Retrieved from: <https://azreportcards.azed.gov/state-reports>. Access date: 5/29/2020.

76 U.S. Census. (2018). *ACS 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 5/30/2020.

77 USDA ERS. (updated 27 Aug 2019). *Food Environment Atlas*. Retrieved from: <https://www.ers.usda.gov/data-products/food-environment-atlas/>. Access date: 5/29/2020.

78 National Center for Health Statistics. U.S. Small-Area Life Expectancy Estimates Project. (2018). Retrieved from: <https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html>. Access date: 5/29/2020.

HEAT-RELATED DEATHS IN MARICOPA COUNTY, 2006-2019



Source: Maricopa County Department of Public Health.

Socio-economic and built-environment issues also add to the challenge. Average Phoenix rents recorded an 8% rise from 2019,⁷⁹ while electricity costs for one of the major utilities are expected to rise 5.4% in 2020.⁸⁰ Families are at risk of eviction when unable to pay both rent and utilities, and people of color suffer evictions at higher rates. Nationally, 11.9% of African American households had faced eviction, as compared to 5.4% of White households.⁸¹ In 2017, more than 25,000 evictions moved through the Maricopa County Justice Courts, registering as the 5th highest total in county history and a 12% jump from the year before.⁸² Home-owning people of color typically suffer foreclosures disproportionately, too. An estimated 44% of African-American and Latino families lost homes to foreclosure at disproportionately higher numbers relative to their share of mortgage originations during 2007-2009 during the housing crisis.⁸³ Nearly 8% of both African Americans and Latinos have lost their homes to foreclosures, compared to 4.5% of Whites. Still recovering, Latinos were hit hardest by the 2008 housing crisis.⁸⁴

79 Dean, E. (6 Jan 2020). *The Hidden Homeless: Growing Number of Older People Living on the Streets*. Retrieved from: <https://cronkitenews.azpbs.org/2020/01/06/hidden-homeless/>. Access date: 5/29/2020.

80 Randazzo, R. (31 Oct 2019). *APS Seeks Electricity Rate Hike. See how Much it May Cost You*. Retrieved from: <https://www.azcentral.com/story/money/business/energy/2019/10/31/aps-seeks-another-rate-hike-following-report-it-is-overearning/2489249001/>. Access date: 5/29/2020.

81 Holder, S. (30 Oct 2017). *Where Evictions Hurt the Most*. Retrieved from: <https://www.citylab.com/equity/2017/10/where-evictions-hurt-the-most/544238/>. Access date: 5/29/2020.

82 Arizona Housing Coalition. (n.d.). *Addressing the Eviction Epidemic in Arizona*. Retrieved from: https://www.azhousingcoalition.org/uploads/1/2/4/9/124924903/addressing_the_eviction_epidemic.pdf. Access date: 5/29/2020.

83 Bocian, D., Li, W. & Ernst K. (18 Jun 2010). *Foreclosures by Race and Ethnicity: The Demographics of a Crisis*. Retrieved from: <https://www.responsiblelending.org/mortgage-lending/research-analysis/foreclosures-by-race-and-ethnicity.pdf>. Access date: 5/29/2020.

84 Rugh, J. (4 Nov 2014). *Double Jeopardy: Why Latinos Were Hit Hardest by the U.S. Foreclosure Crisis*. Retrieved from: <https://academic.oup.com/sf/article-abstract/93/3/1139/2332222?redirectedFrom=fulltext>. Access date: 5/29/2020.

For those experiencing homelessness, summertime heat exposure due to lack of shelter has devastating effects. In 2018, heat took the lives of 182 people in the Phoenix metro area with 42 of those cases being individuals experiencing homelessness.⁸⁵ This is combined with the challenge of potential mental illness, and the 40% spike in homelessness among individuals over age 62 in the last three years,⁸⁶ where approximately half of them were homeless for the first time. Additionally, data shows that African Americans are significantly less likely to be homeowners (one of the most common forms of permanent housing) than their White counterparts (34.02% for African Americans vs 66.9% for Whites).⁸⁷

In Arizona, clear disparities relating to heat, income, and housing can be seen when examining the effects of excessive heat. Visitors to Arizona represent only a small fraction of heat-related deaths recorded in the state; most cases occur among individuals that have lived in Arizona for a long period of time. Older individuals are at the highest risk, but people across the age spectrum have died from heat in Arizona in recent years. Men account for more than twice as many heat-related deaths as women. The heat-related death rate is higher among African American and Native Americans than White residents in Maricopa County, while the heat-related death rate is typically much lower among individuals who identify as Hispanic. Both outdoor and indoor heat pose risks to health and well-being. In Maricopa County, upwards of 40% of cases of heat-related death are associated with indoor exposure, and nearly all of those cases occur in homes with air conditioning units that are off, not functioning properly, or in a state of disrepair. People who live in older mobile homes in Maricopa County are particularly susceptible: they are 8 times more likely to die than residents in other types of housing.⁸⁸

Beyond heat-related illnesses and deaths that are registered in official administrative records, heat has far-reaching effects on people's sense of well-being and quality of life.

COVID-19

While there is still much to learn about the coronavirus pandemic, emerging data suggest that COVID-19 has a similar but exponentially faster capacity to exploit community vulnerabilities. How does one stay-at-home and isolate if one does not have a home? How does an individual experiencing homelessness shelter from excessive heat if the shelter itself presents risk of novel coronavirus infection? How does a family struggling to balance rent payments and utility payments avoid eviction (once the statewide temporary eviction moratorium ends) when the employment rate rapidly sinks to lows not seen in decades?⁸⁹ Resilience practices are not specifically designed for the effects of a community shock, but they are formulated to address Elements of a Healthy Community that can enable communities to potentially "bounce forward."

85 Totiyapungprasert, P. (7 May 2019). *Heat Deaths in Phoenix Reached a Record High in 2018*. Retrieved from: <https://www.azcentral.com/story/news/local/phoenix/2019/05/07/heat-deaths-phoenix-arizona-reached-record-high-2018/2539975002/>. Access date: 5/29/2020.

86 Gilger, L. (13 Jan 2020). *"Humanitarian Crisis": Arizona Shelters See Spike in Homeless Seniors*. Retrieved from: <https://kjjz.org/content/1392536/humanitarian-crisis-arizona-shelters-see-spike-homeless-seniors>. Access date: 5/29/2020.

87 U.S. Census. (2018). *ACS 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 6/1/2020.

88 Maricopa County Public Health Department. (2019).

89 For more information on the intersection between COVID-19 and heat, see the following: *Arizona Republic*, "Self-isolating from COVID-19 in a mobile home? That could be deadly in Arizona." OpEd with Mark Kear, Patricia Solís, Margaret Wilder, David Hondula, and Mark Bernstein. <https://bit.ly/2WsytkN>; *Arizona Mirror*, "Experts fear COVID-19 pandemic will lead to more summer heat deaths," Allison Stevens. <https://bit.ly/3ga1Fia>; *Los Angeles Times*, "Coronavirus could worsen death toll of summer heat waves, health officials warn," Anna M. Phillips and Tony Barboza. <https://lat.ms/2YFTtAd>; *National Geographic*, "As summer arrives, how will the most vulnerable escape deadly heat and COVID-19?" Stephen Leahy. <https://on.natgeo.com/2YISFdX>.

Fostering Increased Resilience

To catalyze the work of building community resilience, 100 cities⁹⁰ across the globe joined to change the state of community challenges such as aging infrastructure, political ineffectiveness, climate events, and social inequality. Known today as the Global Resilient Cities Network, member cities define community resilience as “the capacity for communities, institutions, and individuals to respond and adapt to shocks and long-term stresses.”⁹¹ The Virginia G. Piper Charitable Trust partnered with the Institute for Sustainable Communities, an international non-profit organization, to interact with more than 200 leaders in Maricopa County to explore what community resilience means. Published in 2016, the takeaways of this exercise identified assets and vulnerabilities of the human and natural capital of the region.⁹² Working now as ASU’s Knowledge Exchange for Resilience (KER), the resilience dividend drives decision-making because it cuts across energy, economic security, health, and shelter themes. For example, cooling homes and businesses more efficiently and reducing personal heat exposure not only provides relief from high temperatures, but also saves the wallets of residents and employers by reducing expenses and increasing residential and commercial assets.

Focusing on the resilience dividend exemplifies the way that private individuals, commercial entities, non-profit organizations, and governmental agencies could converge to offer innovative, data-driven solutions to not only to solve specific carefully defined risks, but also to transform community resilience broadly. In the community resilience framework developed by ASU KER, actions, and policies are:

1. **Data-driven:** Entities need to reflect on the knowledge they possess and “liberate” the data, making it available and converging across many organizations to give meaning and situational awareness of risks that may otherwise be hidden in plain sight. Married to official data, this kind of data from within organizations can help provide robust evidence for targeting threats to well-being that have greater impact than “shotgun” approaches.
2. **Collaborative, multi-sector:** Proposed solutions, co-developed and put into place with the lived experiences of community members most affected, should leverage partnerships across a diverse set of actors to integrate solutions across the built environment, and landscape of economic and social capital. This essential perspective helps to guide community resilience building to be more equitable.
3. **Dividend-bearing:** By exchanging our distinct sources of knowledge into spaces of our county, we aim to break the cycle of cascading effects to create self-regulated solutions that can be implemented towards the resilience dividends of community health solutions, and to adequately adapt to a changing demography and climate.

The frameworks, ingredients, actions, and developing collaborations noted in this chapter are – while Maricopa County-centric – emerging pathways and resources for building resilient communities globally. Rodin’s resilience characteristics framework, the goal of creating resilience dividends, the actions to develop community resilience,

90 100 Resilient Cities. (2020). Selected Cities. Retrieved from: <https://www.100resilientcities.org/cities/>. Access date: 5/29/2020.

91 Rodin, J. (2014). The Resilience Dividend: Being Strong in a World Where Things Go Wrong.

92 Virginia G. Piper Charitable Trust. (2020). Advancing Community Resilience. Retrieved from: <https://pipertrust.org/nonprofit-support/advancing-community-resilience/>. Access date: 5/29/2020.

and local analysis of key community challenges (like Maricopa County's excessive heat events) are all tools to be considered so that vibrant communities can sustain shocks and "bounce forward." While developing resilience within specific communities is crucial, it is also necessary to work toward resilience in a way that strives for systemic transformation.

As Arizona makes its way through the novel coronavirus pandemic, the integrative lens of resilience presents a strong alternative to currently dominant debates between seemingly conflicting priorities of public health and economic activity.

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Dr. Patricia Solís, PhD, is Executive Director of the Knowledge Exchange for Resilience at Arizona State University, a campus-wide effort to link multi-sector community needs with research innovations in building community resilience. The effort is funded by a generous grant from the Virginia G. Piper Trust, and engages a multi-disciplinary team of 20 community and academic fellows, 5 cross cutting design scholars, a team of 5 research professors, and a crew of 20 or so full time staff and graduate student assistants. She is Associate Research Professor of Geography in the School of Geographical Sciences and Urban Planning.

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The Role of State, County, and Local Governments in Creating Vibrant Communities

Will Humble, Arizona Public Health Association

Bob England, Former Health Director, Pima and Maricopa Counties

Vitalyst Staff

This topic intersects and explores these elements of a vibrant community:



The structure of our communities – and their capacity for vibrancy – is shaped by the rules, policies, and systems by which we live together in neighborhoods, towns, cities, counties, and states. In other words, governance significantly shapes and influences community vibrancy, whether the lens is close-up or zoomed out.

The precondition for vibrancy is life itself. Since the mid-19th century, average life expectancy in the U.S. boomed from 38 years to 79, more than doubling time on earth.⁹³ Most of that improvement resulted from governments formulating and instituting public health measures that reduced deaths early in life.⁹⁴

A person who made it to age 70 in the mid-19th century could expect to live another 11 years to 81 years of age. Now, a person who makes it to age 70 can expect to live another 15 years, which is only four years longer than people more than 150 years ago, despite the increasing use of healthcare, especially in later years.⁹⁵ In other words, life expectancy only marginally increased due to enormous healthcare expenditure. The rest of the increase resulted from evidence-based policy, systems, and environmental improvements implemented by local, state, and federal government agencies.⁹⁶

Water and sewer sanitation dramatically decreased intestinal disease; little more than a century ago, one in ten died from a waterborne disease. Meanwhile, food safety greatly reduced other dangerous intestinal illnesses. Improvements in housing and working conditions decreased overcrowding, which resulted in plummeting rates of tuberculosis and other infectious diseases long before medical treatment for such illnesses existed.

93 Hoyert DL, Kochanek KD, Murphy SL. (1999). Deaths: Final Data for 1997.

94 Bunker JP, Frazier HS, Mosteller F. (1994). Improving Health: Measuring Effects of Medical Care.

95 National Center for Health Statistics. (8 Oct 2019). Death Rates and Life Expectancy at Birth. Retrieved from: <https://data.cdc.gov/NCHS/NCHS-Death-rates-and-life-expectancy-at-birth/w9j2-ggv5>. Access date: 5/31/2020.

96 Lindsay, G., Merrill, R., & Hedin, R. (31 Oct 2014). The Contribution of Public Health and Improved Social Conditions to Increased Life Expectancy: An Analysis of Public Awareness.

Perhaps nowhere are these lessons more applicable than with COVID-19. Historically, universal vaccination programs and resulting “herd immunity” made once widespread infectious diseases rare. Likewise, workplace and other safety standards set by governments dramatically cut deaths from accidents.⁹⁷ The unique properties of coronavirus (high transmissibility, long asymptomatic incubation, no known medical treatment beyond oxygen therapy, high death rate) constitute a mix of threats that requires communal agreement facilitated by science and government. Policy interventions like stay-at-home orders and other social distancing recommendations require a coordinated and collaborative response through governance at the federal, state, and local level.

Historically, progress like sanitation and automotive safety laws has been achieved through various policies, laws, and regulations. One consistent commonality between these improvements is that those public policies were informed by scientific evidence and implemented in ways that dramatically benefited everyone. Despite the controversy and debates that surrounded many of those policy decisions at the time, evidence-driven policies were eventually enacted, resulting in greater longevity and well-being for all.

The circumstances of COVID-19 are analogous:

1. The bacterial threat of poor sanitation in the 19th century was “invisible” and as potentially capable of “superspreading” outbreaks as coronavirus is today.
2. The communal agreement to develop and abide by “rules of the road” (such as speed limits, traffic signs/signal, traffic laws, seat belt laws) when it came to automotive safety in the 20th century compares favorably with the opportunity to develop and abide by new communal “rules of COVID-19” today (like frequent handwashing, social distancing, public mask-wearing).

Federal, state, and local agencies have already come a long way and have the potential to go even further to ensure community vibrancy. Opportunity is high for improvements, as data shows significant gaps by race, ethnicity, and socioeconomic status. Residents from a zip code two miles from Arizona’s state capitol building die an average of 14 years earlier than those in another zip code 20 miles away.⁹⁸

Some of these differences are the result of varying access to health care, but most of it has been found to be due to the social determinants of health, or differences in physical and social environment. These determinants took the form of overcrowding and poor sanitation a century ago. Today they look more like economic status, educational opportunity, and other factors.⁹⁹

COVID-19 death disparities based on race, income, and place provide another statistical confirmation that the social determinants of health are key to community vibrancy. The cumulative generational effect of inequitable policies and systems is resulting in higher percentages of people of color dying. COVID-19 hotspots include lower-income factory settings (i.e. meat packing plants) and senior congregate living facilities that are under-resourced and populated by residents often suffering cumulative effects of “co-morbidities” – conditions connected to social determinants of health.

97 Lindsay, G., Merrill, R., & Hedin, R. (31 Oct 2014). *The Contribution of Public Health and Improved Social Conditions to Increased Life Expectancy: An Analysis of Public Awareness.*

98 Chiang, CL. (1968). *The Life Table and its Construction. In: Introduction to Stochastic Processes in Biostatistics.*

99 Marmot, M. (8 Nov 2008). *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health.*

There have been many advancements in Arizonans' health. Yet, even prior to COVID-19, it was clear that there was still much work to be done. Now, the need for governance focused on community vibrancy and public health is more pressing, yet:

- Arizona's public health funding is almost 50% below the national average, ranking 47th in the country.
- Per person, the U.S. dedicates \$86 from state and federal funding to public health while Arizona only delegates \$50.¹⁰⁰
- 22.1% of Arizonans report being physically inactive and 29.5% experience obesity,¹⁰¹ which often leads to diabetes – a condition highly susceptible to COVID-19 complications.
- 25.2% of adults with less than high school education report having a health high status while 62.7% of college graduates report having a high health status.¹⁰²

Today, the benefits of public policy measures like food safety, clean water, and disease control have been mostly, though not completely, realized. New tools and strategies are most likely to be necessary to continue improving community vibrancy. Without question, public health resources are key to the fight against coronavirus; but government agencies can support our communities over the long-term by concurrently addressing underlying issues like affordable housing, economic opportunities, affordable child-care, transportation options, access to affordable healthy foods, safe and secure neighborhoods, access to safe areas to recreate, minimum wage laws (particularly as hourly service workers suffer the greatest coronavirus impacts economically), and environments that are more walkable and bikeable.

The new model for public well-being is moving beyond core historic services and into inter-sectoral collaboration with private, non-profit, and public sector partners who can influence the policy elements that influence the social determinants of health. Public health can best succeed through the collaborative support of its governmental partners. Functionally, this means that directors of local health departments are choosing to collaborate with and educate local government partners to influence policy in other sectors, while also taking action to influence elected officials in order to pass policies that improve these social determinants.¹⁰³

This type of work is called the "Health in All Policies" approach. In the near term, this includes "the battle," including specific steps like more robust health surveillance infrastructure (testing and contact tracing in the case of COVID-19). At the same time, Health in All Policies strategies can focus on winning "the war" by addressing root causes of community vulnerability such as the significant issues of inequity, economic challenges, housing/homelessness, and food insecurity that have become evident during the coronavirus pandemic.

100 Arizona Department of Health Services. (2019). *Arizona State Health Assessment*. Retrieved from: <https://www.azdhs.gov/documents/operations/managing-excellence/2019-state-health-assessment.pdf>. Access date: 5/31/2020.

101 America's Health Rankings: United Health Foundation. (2019). *Public Health Impact: Public Health Funding*. Retrieved from: https://www.americashealthrankings.org/explore/annual/measure/PH_funding/state/AZ. Access date: 5/31/2020.

102 America's Health Rankings: United Health Foundation. (2019). *Public Health Impact: Disparity in Health Status*. Retrieved from: https://www.americashealthrankings.org/explore/annual/measure/healthstatus_disparity/state/AZ. Access date: 5/31/2020.

103 Brennan-Ramirez LK, Baker EA, Metzler M. (2008). *Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health*.

Health in All Policies: Coffelt-Lamoreaux Public Housing Redevelopment

Government agencies struggled with what to do about Phoenix's oldest public housing project. Built in 1953 in what was then an agricultural area, the Coffelt-Lamoreaux site with 296 housing units is now surrounded by a highway and industry. As such, demolition and relocation of residents was considered. Residents, however, wanted to remain and make Coffelt better. Prior to redevelopment, a collaboration between residents, government agencies, a developer, and several nonprofits took a Health in All Policies approach by first conducting a Health Impact Assessment (HIA).

HIAs are data-driven, place-based analyses that are used to shape and assess the impact of pending or future decisions – in this case, to inform how Coffelt-Lamoreaux might be redeveloped to support community vibrancy. During an HIA, public and private sector partners come together to understand health consequences, discuss possible solutions for these potential consequences, and to ensure the voice of the community is recognized throughout the HIA process.

The Coffelt-Lamoreaux HIA was completed in 2013. Many of its recommendations and insights were implemented. Here is a sampling of key community solutions with significant "return on investment": (1) improving housing units with additional bathrooms, climate control to better mitigate heat, and pollution and noise mitigation to lessen negative effects of the neighboring industry and highway, (2) redesigning the streetscape for safety and to promote pedestrian connectivity (specifically including a crucial safe crosswalk for bus access to work, school, and food), (3) multiple community changes to improve healthy food access (a new on-site small grocery store, local store incentives to expand healthy foods, free community shuttle bus service to larger supermarkets, a community garden, and a school gardening program), and (4) improved lighting, tree and shade canopy, and landscaping to activate open space for community interaction and physical activity. Today, Coffelt-Lamoreaux is a significantly more attractive, supportive, and vibrant community through a Health in All Policies approach.

Health in All Policies can flip the script on traditional approaches to community health and has been proven to create cross-sector collaboration that produces more vibrant communities. Coffelt is not unique. Health Impact Assessments have been performed statewide in Arizona, in rural and suburban settings. County government agencies – notably, Maricopa County, Cochise County, Pima County, and Yavapai County – have produced Community Health Improvement Plans focused on the social determinants of health. Cities and towns ranging from Flagstaff to Yuma and Payson to Bisbee are employing a social determinants lens to address root causes of vibrancy and enhance governmental decision making. Arizona's state health department¹⁰⁴ is also working with the Department of Corrections to help improve its prison release plans. When inmates are released they are: (1) already enrolled in their state's Medicaid plan, (2) linked to substance abuse treatment agencies, and (3) connected with job training and placement organizations.

¹⁰⁴ Arizona Health Care Cost Containment System. (2020). *Support for Individuals Transitioning out of the Criminal Justice System*. Retrieved from: <https://www.azahcccs.gov/AHCCCS/Initiatives/CareCoordination/justiceinitiatives.html>. Access date: 5/31/2020.

Today's state and local government agencies are becoming increasingly more aware that they need to move beyond core 20th Century public health services and into inter-sectoral relationships with all manner of state and county government agencies to continue to make progress. They also recognize the need to help elected officials at all levels understand these new approaches to community vibrancy, so that public policy takes into consideration its influence on the social determinants of health.

About the Authors

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Will Humble is a long-time public health enthusiast and is currently the Executive Director for the Arizona Public Health Association (AzPHA). His 30 years in public health include more than 2 decades at the Arizona Department of Health Services, where he served in various roles including as the Director from 2009 to 2015. He continues to be involved in health policy in his role as the Executive Director for the Arizona Public Health Association. He has a BS in Marketing from NAU, a BS in Microbiology from ASU, and an MPH from the University of California at Berkeley. He was awarded an Honorary Doctorate of Science from the U of A for engaging partnerships between academic and executive public health. Will is a believer in using evidence-based health policy to improve health outcomes and in leading and managing with emotional intelligence.

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The Role of Built Environment in Creating Vibrant Communities

Vitalyst Staff

Leslie Dornfeld, PLAN*et

This topic intersects and explores these elements of a vibrant community:



TRANSPORTATION OPTIONS



FOOD ACCESS



COMMUNITY DESIGN



PARKS AND RECREATION



SOCIAL/CULTURAL COHESION

Building Vibrant Communities

Thoughtful attention to our built environment enables vibrant communities because Arizona communities become more vibrant when healthy choices are easily accessible for all residents. The built environment is defined as the way in which environments are designed and constructed, which includes the arrangement of buildings where people live, shop, and work. This includes recreation sites like parks and trails, places people visit like hospitals and schools, and transportation systems. The built environment within a community has tremendous impact on the well-being of its members, either increasing or decreasing the availability of vibrancy options. This chapter, and subsequent chapters focused on housing, transportation, and food systems, examines the current built environment of Arizona's communities as well as explores opportunities for improvement.

Arizona's Built Environment is Influencing Vibrancy

Transportation Systems

Walkability – or having the option to walk to places where we can shop, recreate, work, and socialize – is an important facet of healthy community design that supports active lifestyle and social cohesion. It is well known that an active lifestyle is positively associated with better health outcomes while inactivity is linked to many leading causes of death in the United States.

In 2017, Arizona's leading cause of death was heart disease, with other top causes including stroke (#6), diabetes (#7), suicide (#8), and hypertension (#10).¹⁰⁵ The death rate from hypertension in Arizona is the fourth highest in the nation, and the state is nationally ranked 16th highest for diabetes-related deaths.¹⁰⁶ The United States Centers for Disease Control and Prevention (CDC) states physical activity helps

¹⁰⁵ Center for Disease Control and Prevention. (13 Apr 2018). *Stats for the State of Arizona*. Retrieved from: <https://www.cdc.gov/nchs/pressroom/states/arizona/arizona.htm>. Access date: 5/29/2020.

¹⁰⁶ Ibid.

control the body's sugar levels and lowers the risk of heart disease and nerve damage.¹⁰⁷ It also contributes to preventing hypertension.¹⁰⁸

Vibrantly designed communities not only increase physical activity but also increase social interaction and improve overall community cohesion, which serve as mitigating factors for feelings of isolation. Social isolation, or a lack of contact with individuals and society, is statistically significant and potentially twice as harmful to physical and mental health as obesity.¹⁰⁹

When assessing community walkability, Arizona scores poorly, with the top 46 largest cities in the state scoring an average of a 23 out of 100 Walk Score.¹¹⁰ Arizona's car-dependent suburbs and rural areas do not offer many options for people to choose to walk or bike to their regular destinations, including work, school, and other daily errands. This means that Arizonans tend to be heavily dependent on auto or public transit options to get around. Studies show that in addition to the well-documented negative health impacts of auto emissions, individuals with obesity who commute by car have a 32% higher risk of death from any cause compared to those of a normal weight who commute by cycling and walking.¹¹¹

A 2018 Benchmarking Report by the League of American Bicyclists¹¹² shows that Phoenix experienced an almost 26% increase in the percent of obese people and has one of the lowest percentages of people who walk or bike to work. The report also found that from 2010–2016, in Phoenix, there was a more than 47% increase in adults with diabetes and an almost 11% increase in adults with high blood pressure from 2011–2015.¹¹³ Both of these chronic conditions can often be effectively managed with diet and physical activity, which are two outcomes of a built environment focused on health. For Arizonans who rely on alternate transportation, either by choice or because they have no other options, the outlook is not much better. The current reality of poorly designed, car-centric streets may put people who walk or bike in unsafe situations. For example, Phoenix, a city of 1.6 million people, had only 15 fewer pedestrian deaths in 2017 than New York City (population 8.5 million).¹¹⁴

Housing Options

A 2016 Regional Plan Association report found that 56% of Millennials and 46% of Baby Boomers prefer to live in more walkable, mixed-use neighborhoods.¹¹⁵ This demand is further evidenced by sharp increases in rents in

107 Center for Disease Control and Prevention. (24 Apr 2018). *Get Active!* Retrieved from: <https://www.cdc.gov/diabetes/managing/active.html>. Access date: 5/29/2020.

108 Diaz, K.M., & Shimbo, D. (2013). *Physical Activity and the Prevention of Hypertension*. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3901083/>. Access date: 5/29/2020.

109 American Psychological Association. (May 2019). *Social Isolation: It Could Kill You*. Retrieved from: <https://www.apa.org/monitor/2019/05/ce-corner-isolation>. Access date: 5/29/2020.

110 Walk Score. (2020). *Cities in Arizona*. Retrieved from: <https://www.walkscore.com/AZ/>. Access date: 5/29/2020.

111 European Association for the Study of Obesity. (27 Apr 2019). *Being a Car Commuter with Obesity Linked to a 32% Increased Early Death Risk*. Retrieved from: <https://www.sciencedaily.com/releases/2019/04/190427201946.htm>. Access date: 5/29/2020.

112 The League of American Bicyclists. (3 Sep 2019). *Bicycling & Walking in the United States*. https://bikeleague.org/sites/default/files/Benchmarking_Report-Sept_03_2019_Web.pdf. Access date: 5/29/2020.

113 Ibid.

114 Schmitt, A. (24 Apr 2019). *Phoenix Will Continue to Let People to Die in the Streets*. Retrieved from: <https://usa.streetsblog.org/2019/04/24/phoenix-council-votes-to-continue-letting-people-to-die-in-the-streets/>. Access date: 5/29/2020.

115 Regional Plan Association. (Feb 2016). *The Unintended Consequences of Housing Finance*. Retrieved from: https://static1.squarespace.com/static/53dd6676e4b0fedfbc26ea91/t/56c4e43cab48de9641559379/1455744066769/rpa-the-unintended-consequences-of-housing-finance__final.pdf. Access date: 5/29/2020.

recent years. Providing mixed-use, transit-accessible neighborhoods that reduce auto-reliance is a growing trend in suburban developments, as these types of developments free up income that would be used for housing and maintaining a second car.¹¹⁶ Reduced transportation costs enable people to spend more on housing and healthcare, which may have positive health impacts. The National Low-Income Housing Coalition found that in 2017, 78% of extremely low-income, 38% of very low-income, and 7% of low-income Arizona households spent more than half their income on housing.¹¹⁷ The Robert Wood Johnson Foundation states, “high housing-related costs place a particular economic burden on low-income families, forcing trade-offs between food, heating, and other basic needs.¹¹⁸ One study found that low-income people with difficulty paying rent, mortgage, or utility bills were less likely to have a traditional source of medical care and more likely to postpone treatment and use the emergency room for treatment.¹¹⁹ Another study showed that children in areas with higher rates of unaffordable housing tended to have worse health, more behavioral problems, and lower school performance.”¹²⁰

Access to Food

The built environment of a community either supports or impedes people’s ability to access quality, affordable food. In many areas across Arizona, individuals must travel more than ten miles to access healthy food. In urban areas, there are many places where people must travel over a mile to access healthy food. Research shows that, while not the only factor, these “low food access” conditions (sometimes called “food deserts”) are associated with high rates of obesity and chronic diet-related diseases.¹²¹ Food deserts can be a result of a combination of income and land use policies, which discourage walkable, mixed-use communities. Typically, a food desert is defined as: (1) low-income, urban-area census tracts where at least one third of the population is more than one mile, and (2) low-income rural-area census tracts where at least one third of the population is 20 miles, from a supermarket that offers fresh food. A study found that one in ten Arizonans have limited access to healthy foods, and Maricopa County, Arizona’s most urbanized area, contains 55 food deserts.¹²²

Building Communities that Enhance Vibrancy

The built environment results from intersections of many economic, regulatory, social, and cultural factors. With few exceptions, Arizona’s current land use is guided by designs that reduce traffic congestion, minimize mixed-use (residential and retail, for example), and keep population densities consistently low outside the

116 Florida, R. (8 Jun 2014). *The Financial Benefits of Living in Transit-Friendly, Walkable Areas*. Retrieved from: <https://www.theatlantic.com/business/archive/2011/06/the-financial-benefits-of-living-in-transit-friendly-walkable-areas/240075/>. Access date: 5/29/2020.

117 National Low-Income Housing Coalition. (2018). *Arizona State Data Overview*. Retrieved from: <https://nlihc.org/housing-needs-by-state/arizona>. Access date: 5/29/2020.

118 Robert Wood Johnson Foundation. (1 May 2011). *How Does Housing Affect Health?* Retrieved from: <https://www.rwjf.org/en/library/research/2011/05/housing-and-health.html>. Access date: 5/29/2020.

119 Harkness, J. & Newman, S. (31 Mar 2010). *Housing Affordability and children’s well-being: Evidence from the national survey of America’s families*. Retrieved from: <https://www.tandfonline.com/doi/abs/10.1080/10511482.2005.9521542>. Access date: 5/29/2020.

120 Robert Wood Johnson Foundation. (1 May 2011). *How Does Housing Affect Health?* Retrieved from: <https://www.rwjf.org/en/library/research/2011/05/housing-and-health.html>. Access date: 2/29/2020.

121 National Research Council. (2009). *The Public Health Effects of Food Deserts: Workshop Summary*. Retrieved from: <https://www.ncbi.nlm.nih.gov/books/NBK208018/>. Access date: 5/29/2020.

122 Blue Cross Blue Shield of Arizona. (30 Oct 2017). *Nourishing Arizona Week Brings Focus to Food Deserts*. Retrieved from: <https://www.azcentral.com/story/sponsor-story/livingwell/2017/10/30/nourishing-arizona-week-brings-focus/107181010/>. Access date: 5/29/2020.

light rail line and certain areas within the metropolitan area. Change in the built environment begins with a shift in evaluating new development opportunities. Consider how new development approaches can positively contribute to a healthier community, such as providing at least two viable transportation options that offer access to parks and open spaces, services, and employment. A 2017 study found that healthy design components, including sidewalks, trees, parks, and bike lanes in neighborhoods, resulted in more physical activity within that neighborhood.¹²³ In areas that are already developed, opportunities can be found through activation of vacant lots, reimagining private open space that may currently be used as concrete passive plazas, and integrating art and other amenities into sidewalks and public spaces that could encourage walking and physical activity.

Many regulations affect the built environment, however, there are some large-scale policy responses that may promote healthier design and increase walkability. One approach to change might be to examine regulations that direct the design of the built environment, such as zoning regulations, street standards, park/recreation plans, and general plans.

Zoning regulations direct the types of uses and their placement on a site. Setbacks, curb cuts, height regulations, front, back, and side yards, as well as parking, are all regulated on a site-by-site basis by zoning. Traditional (Euclidian) zoning is based on separating uses. Other types of zoning, including Form Based, Performance, and Flexible zoning can allow for development on a single site and within blocks that mix use, reduce the need for vehicle storage (parking and driveways), and provide more open space. Phoenix's adoption of the Walkable Urban Code (WUCODE) along the light rail line and Tempe's downtown code reflect many of the principles of these alternative zoning approaches. While a bus system is a viable means of public transportation, a light rail system is an investment that has long-term return on investment (ROI) and encourages investors to build property near the area. Tempe also recently approved "Culdesac," a new development that is sited next to the light rail and will have no parking for residents. Culdesac is under construction now and is located in an area that provides a range of other mobility options including light rail, sidewalks, scooters, and bike lanes. The developers of the project are also considering sites in Dallas, Denver, and Raleigh-Durham, North Carolina.¹²⁴ Additionally, to help support a more transit-friendly, diverse, and mixed set of land uses within the urbanizing city, Flagstaff adopted a Form Based code for downtown in 2016. The code stresses the built form and how it provides for a better built environment above the particular use in any given building.¹²⁵

General Plans are another land use tool that can encourage vibrant communities. In Arizona, state law requires cities, towns, and counties to update or re-adopt their General Plans every ten years.¹²⁶ Each updated or readopted plan must include a land use map that identifies densities and intensities of land uses throughout

123 McCormack, GR. (Jun 2017). *Neighbourhood Built Environment Characteristics Associated with Different Types of Physical Activity in Canadian Adults*. Retrieved from: <https://www.ncbi.nlm.nih.gov/pubmed/28614045>. Access date: 5/29/2020.

124 Richardson, B. (25 Nov 2019). *Developer Breaks Ground on a Neighborhood in Tempe, Arizona, for People- And No Cars*. Retrieved from: <https://www.forbes.com/sites/brendarichardson/2019/11/25/developer-breaks-ground-on-a-neighborhood-in-tempe-arizona-for-people-not-cars/#2f8e24637f0d>. Access date: 5/29/2020.

125 Flagstaff City Council. (Updated Feb 2016). Retrieved from: http://cityweb.flagstaffaz.gov/docs/2016/CCMTG/20160216_432/2061_CC_Transect_FBC_Tutorial2016Feb16PDF.pdf. Access date: 5/29/2020.

126 Arizona State Legislature. (n.d.). *Adoption and Amendment of General Plan; Expiration and Readoption*. Retrieved from: <https://www.azleg.gov/ars/9/00461-06.htm>. Access date: 5/29/2020.

the jurisdiction as well as a transportation map. State law requires that zoning conform to the General Plan Land Use Map. This provides an opportunity for communities to encourage land uses that result in mixed use that supports a variety of housing types, broad access, and accessible parks. Depending on the size and growth rate of the community, General Plans must also address other areas that affect community health including parks and recreation, the environment, and housing. This provides an opportunity for communities to consider new policies that can encourage the design of vibrant communities. Over the past five years, many Arizona communities have considered health, vibrancy, and valuing community character in their General Plans. Some communities dedicate a chapter of the plan to health, while others have integrated well-being considerations throughout their General Plan.

Providing a range of mobility options may encourage physical activity and enhance access to places that can support vibrant lifestyles including parks, health care facilities, and healthy food stores. This may also enhance community members' ability to participate in social activities like community events. Enhancing mobility could be addressed in multiple ways, some of which are outlined below:

Complete Streets and Vision Zero are two solutions that are outlined in detail in the chapter, "The Role of Transportation and Safe Streets in Creating Vibrant Communities".

Active Transportation is any self-propelled, human-powered mode of transportation, such as: walking, skateboarding, or bicycling. Many Americans view walking and bicycling within their communities as unsafe due to heavy traffic and a scarcity of sidewalks, crosswalks, and bicycle facilities. Improving these elements has internationally been shown to encourage active transportation, such as children biking to school or employees walking to work. Safe and convenient opportunities for physically active travel also expand access to transportation networks for people without cars while spurring investment in infrastructure that improves the on-road experience of active modes to all people.

The Last Mile connection encourages the location of mixed-use developments, free/rental bicycles and scooters, and enhanced pedestrian connections to reduce the difficulty of using transit for access and egress to destinations. A 2018 study of New Delhi commuters found that the overall walkability environment offered to transit commuters is crucial in the share of walk trips for the last mile commute and the distance commuters are willing to walk.¹²⁷

Additional implementation strategies include:

- implementing Safe Routes to School and Safe Routes to Parks programs that enable children to walk and bike to school or local parks safely
- connecting shared-use trail networks
- separating motor-vehicle traffic from non-motorized traffic with physical barriers, such as the construction of bicycle boulevards
- prioritizing infrastructure improvements near transit stops and public transportation stations

¹²⁷ Urban Studies and Public Administration. (2018). *Effect of Walkability on Users Choice of "Walking" the Last Mile to Transit Stations: A Case of Delhi Metro*. Retrieved from: <http://www.scholink.org/ojs/index.php/uspa/article/view/1257/1444>. Access date: 5/29/2020.

- providing safe and convenient bicycle and pedestrian connections to public parks and recreation areas
- promoting safe roadway crossings through use of small block sizes, pedestrian refuge islands, and crosswalks
- providing streetscape amenities such as benches, landscaping, lighting, and public art
- encouraging wayfinding with signs, maps, and landscape cues to direct people who walk or bike to the most direct route
- building bicycle parking at workplaces and transit stops
- designing and building street-level activity along pedestrian and bicycle routes
- educating people who walk or bike on state and local laws, as well as on safe practices¹²⁸

"Think of an 8-year-old and an 80-year-old that you love; build the city for them. "If an 8-year-old cannot safely do something as simple as get an ice cream down the street, by themselves, then our city is failing them. If an 80-year-old has to be on the defense to get across the street safely, our city is failing them. If we are keeping them in mind as we develop and build our city, they, and everyone else (of all ages) will benefit."

- Gil Penalosa

About the Author

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Leslie Dornfeld, FAICP, CSBA is the owner of PLAN*et, a community planning, policy, and design firm. Her career highlights include national, regional and local award-winning projects including the American Planning Association National Planning Achievement Award for the Greening Lower Grand Avenue Plan, and Arizona Planning Association award-winning Queen Creek General Plan, Casa Grande General Plan, Goodyear City Center Specific Master Plan; Phoenix Indian School Plan; Desert Spaces Plan, and Pedestrian Area Policies and Design Guidelines for the Maricopa Association of Governments. Leslie is an active member of the Urban Land Institute Technical Assistance Panel. She also guest lectures at the University of Pennsylvania School of City and Regional Planning.

¹²⁸ Center for Disease Control and Prevention. (2011). Transportation Health Impact Assessment Toolkit. Retrieved from: https://www.cdc.gov/healthyplaces/transportation/promote_strategy.htm. Access date: 5/29/2020.

The Intersection of Housing and Vibrant Communities

C.J. Eisenbarth Hager, Vitalyst Health Foundation

This topic intersects and explores these elements of a vibrant community:



Introduction

The health impacts of housing are broad and complex. Housing can have immediate impacts on health, lingering for generations. The “better housed” one is, the more benefits for health. Moreover, the forces are bi-directional; not only does housing impact health, but health also impacts what housing is available.

How Housing Impacts Health

One framework of connecting health and housing considers the inter-relationship of three dimensions: quality, affordability, and neighborhood context.

Quality

Shelter is one of the most basic of human needs, providing safety, security, and stability. The physical condition of the home influences the extent to which basic human needs are met. Those experiencing homelessness are exposed to a host of threats to health and well-being, from increased exposure to violence, to lack of a safe place to store medicine or recover from a medical procedure.¹²⁹ Toxic environmental materials, such as lead paint and asbestos, poor maintenance, and aging housing stock can result in a dangerous living environment. Unintentional injury, communicable and chronic disease, mental illness, and poor childhood development can result from, and be compounded by, poor housing conditions.¹³⁰

Illustrative Data Points

- 32.82% of buildings in Arizona were built before 1979, thereby increasing the risk of lead paint exposure.¹³¹
- 58 out of every 1,000 Native American households lack plumbing in comparison to 3 out of every 1,000 White households.¹³²

129 Medline Plus. (27 Apr 2020). *Homeless Health Concerns*. Retrieved from: <https://medlineplus.gov/homelesshealthconcerns.html>. Access date: 5/29/2020.

130 Krieger, J. & Higgins, D. L. (May 2002). *Housing and Health: Time Again for Public Health Action*. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447157/>. Access date: 5/29/2020.

131 U.S. Census. (2018). *ACS 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 5/30/2020.

132 U.S. Water Alliance. (2019). *Closing the Water Access Gap in the United States: A National Action Plan*. Retrieved from: http://closethewatergap.org/wp-content/uploads/2020/03/Dig-Deep_Closing-the-Water-Access-Gap-in-the-United-States_DIGITAL_compressed.pdf. Access date: 5/31/2020.

Affordability

Affordability is a straightforward calculation, defined as paying no more than 30% of a family's income on total housing costs.¹³³ This formula reflects a more complicated connection, though: the relationship between prevailing housing costs and prevailing incomes.

Financial burden associated with housing can result in tough trade-offs, such as foregoing or delaying healthy food, preventative healthcare, or essential medications to manage chronic conditions. This trade-off is felt most frequently by lower-income renters and those experiencing homelessness. Extreme financial burden can strain social and mental health as well. Non-payment of rent is the most common cause of eviction; non-payment of rent is also closely tied to a family's income.¹³⁴ Not surprisingly, prevailing rents that are out of proportion with prevailing wages create a complex mix that can lead to evictions and ultimately homelessness.¹³⁵ Evictions and homelessness can be devastating to health with both immediate and lasting impacts.

Additionally, affordability impacts the other housing dimensions of quality and neighborhood context. A family may sacrifice housing quality for the sake of its affordability or pay higher rent to live in a neighborhood with good schools.

Illustrative Data Points

- 45% of Arizona renters and 22% of homeowners pay more than 30% of their income toward housing.¹³⁶
- In some census tracts, (such as tract 04013116733 west of Phoenix) nearly all renter households pay more than 30% of their income on housing costs.¹³⁷
- In Arizona, to afford a modest one-bedroom rental, one would have to work 57 hours a week when making minimum wage.¹³⁸

Neighborhood Context

Where we live, or the neighborhood or community context, also impacts health. Neighborhood context describes how housing interacts with the other elements highlighted in *Creating Vibrant Communities*.

Residing in a home in close proximity to community assets, such as schools, open or green spaces, and healthy food retailers, encourages interaction with these health-promoting resources.¹³⁹ Neighborhood context and social dynamics can either reinforce health or undermine it.

133 Schwartz, M. & Wilson, E. (n.d.). *Who Can Afford to Live in a Home?: A Look at Data from the 2006 American Community Survey*. Retrieved from: <https://www.census.gov/housing/census/publications/who-can-afford.pdf>. Access date: 5/29/2020.

134 Badger, E. (12 Dec 2019). *Many Renters Who Face Eviction Owe Less Than \$600*. Retrieved from: <https://www.nytimes.com/2019/12/12/upshot/eviction-prevention-solutions-government.html>. Access date: 5/29/2020.

135 Desmond, M. (Mar 2015). *Unaffordable America: Poverty, Housing, and Eviction*. Retrieved from: <https://www.irp.wisc.edu/publications/fastfocus/pdfs/FF22-2015.pdf>. Access date: 5/29/2020.

136 U.S. Census. (2018). *ACS 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 5/30/2020.

137 Ibid.

138 National Low-Income Housing Coalition. (2019). *Out of Reach 2019: Arizona*. Retrieved from: <https://reports.nlihc.org/oor/arizona#>. Access date: 5/29/2020.

139 Robert Wood Johnson Foundation: Commission to Build a Healthier America. (Sep 2008). *Where We Live Matters for Our Health: Neighborhoods and Health*. Retrieved from: <http://www.commissiononhealth.org/PDF/888f4a18-eb90-45be-a2f8-159e84a55a4c/Issue%20Brief%203%20Sept%2008%20-%20Neighborhoods%20and%20Health.pdf>. Access date: 5/29/2020.

Communities Most At-Risk

People of Color

America has a tragic history of housing policies purposely designed to harm or exclude people of color.¹⁴⁰ Exclusionary zoning regulations, loan risk assessment guidelines, and urban renewal programs are just a few examples of how people of color have been harmed by government housing policies. Although many of these practices are now illegal, the health impacts continue to be felt decades later. For example, because people of color faced additional barriers or outright exclusion from favorable mortgage products, homeownership rates are lower for most people of color.¹⁴¹ Homeownership is a common strategy for families to accumulate wealth. In turn, low homeownership rates impact wealth accumulation for families of color.

Some researchers cite housing segregation as a leading cause of racial health disparities.¹⁴² Segregation impacts housing quality, affordability, neighborhood context, and ultimately access to community assets that support health like education and jobs.

Illustrative Data Points

- While the White homeownership rate in Arizona is 66.9%, the rate for American Indians is 53.41%, 52.46% for Hispanics, and 34.02% for Blacks.¹⁴³
- Similarly, the percentage of Whites in Arizona experiencing renter cost burden is 43.5%, for Hispanics this increases to 48.8%, and for Blacks this increases even more to 52.2%.¹⁴⁴

Low-Income

As a family's income falls, so do housing choices that fit its budget. For every 100 Arizona families who earn the median income, 104 rental homes would fit their budget.¹⁴⁵ In contrast, for 100 extremely low-income families, the number drops to just 26 rental homes.¹⁴⁶ Demand outstrips supply. Families with fixed incomes likewise face challenges. For example, Arizona's Supplemental Security Income monthly payment is \$771, which would allow for just \$231 per month for housing costs; however, market rate for a studio apartment is \$702.¹⁴⁷ Homeownership is seen as a strategy to stabilize housing costs, which is especially important to families with limited incomes. Yet, the most common barriers to ownership trace back to income constraints, including saving for a down payment, credit scores, and home prices.¹⁴⁸

140 Maxwell, C. & Solomon, D. (7 Aug 2019). *Systemic Inequality: Displacement, Exclusion, and Segregation*. Retrieved from: <https://www.americanprogress.org/issues/race/reports/2019/08/07/472617/systemic-inequality-displacement-exclusion-segregation/>. Access date: 5/29/2020.

141 Vox. (5 Dec 2019). *The Sordid History of Housing Discrimination in America*. Retrieved from: <https://aas.princeton.edu/news/sordid-history-housing-discrimination-america>. Access date: 8/13/2020.

142 Williams, D. R. & Collins, C. (Sep 2001). *Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health*. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1497358/>. Access date: 5/29/2020.

143 U.S. Census. (2018). *ACS 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 5/30/2020.

144 Joint Center for Housing Studies of Harvard University. (2016). *Renter Cost Burdens by Race and Ethnicity (1B)*. Retrieved from: https://www.jchs.harvard.edu/ARH_2017_cost_burdens_by_race. Access date: 5/29/2020.

145 National Low-Income Housing Coalition. (2018). *Arizona*. Retrieved from: <https://reports.nlihc.org/gap/2018/az>. Access date: 5/29/2020.

146 Ibid.

147 National Low-Income Housing Coalition. (2019). *Out of Reach 2019: Arizona*. Retrieved from: <https://reports.nlihc.org/or/arizona>. Access date: 5/29/2020.

148 Goodman, L., McCargo, A., Golding, E., Bai, B., & Stochak, S. (Sep 2018). *Barriers to Accessing Homeownership: Down Payment, Credit, and Affordability*. Retrieved from: https://www.urban.org/sites/default/files/publication/99028/barriers_to_accessing_homeownership_2018_4.pdf. Access date: 5/29/2020.

Illustrative Data Points

- 87% of the extremely low-income families (\$21,650 per year for a family of 4)¹⁴⁹ in Arizona pay more than 30% of their income toward housing costs; 73% pay more than half of their income.¹⁵⁰
- During 2016, the average White family had about 10 times the wealth of the average Black family (\$163,000 vs \$16,000);¹⁵¹ Similarly, the typical White family held over 7 times the wealth of the average Hispanic family (\$163,000 vs \$22,000).¹⁵²

Other Historically Marginalized People

In addition to people of color and those with low incomes, other groups face bias, exclusion, and systemic barriers in meeting their basic housing needs. These groups include:¹⁵³

- rural communities
- tribal communities
- people with disabilities
- people who were formerly incarcerated
- people who are LGBTQ
- families with children
- people who receive government assistance
- foreign-born or immigrant

Emerging Issues and Trends

- Federal funding for housing affordability has been falling;¹⁵⁴ increasingly, states and cities are asked to take a more prominent role.¹⁵⁵
- Currently, the most impactful and productive public investment in housing affordability is a federal tax credit.¹⁵⁶ In Arizona, the Low-Income Housing Tax Credit (LIHTC) has produced about 16,000 housing units since 1987¹⁵⁷ and relies heavily on private sector investors and developers. While an important asset to the state, the affordability parameters are limited. Even when receiving LIHTC assistance, some families may still be cost-burdened or need additional public assistance to achieve affordability, like Housing Choice Vouchers (formerly known as Section 8).¹⁵⁸

149 HUD User. (2020). *FY2020 Income Limits Summary*. Retrieved from: https://www.huduser.gov/portal/datasets/il/il2020/2020summary.odn?inputname=STTLT*0499999999%2BArizona&selection_type=county&stname=Arizona&statefp=04.0&year=2020. Access date: 5/29/2020.

150 National Low-Income Housing Coalition. (2018). *Arizona*. Retrieved from: <https://reports.nlihc.org/gap/2018/az>. Access date: 5/29/2020.

151 Asset Funders Network. (2016). *The Wealth Gap*. Retrieved from: <https://assetfunders.org/the-issue/the-wealth-gap/>. Access date: 5/29/2020.

152 Ibid.

153 Urban Institute. (n.d.). *Exposing Housing Discrimination*. Retrieved from: <https://www.urban.org/features/exposing-housing-discrimination>. Access date: 5/29/2020.

154 Sard, B. & Rice, D. (25 Feb 2009). *Decade of Neglect Has Weakened Federal Low-Income Housing Programs*. Retrieved from: <https://www.cbpp.org/research/decade-of-neglect-has-weakened-federal-low-income-housing-programs>. Access date: 5/29/2020.

155 National Low-Income Housing Coalition. (2019). *State and City Funded Rental Housing Programs*. Retrieved from: <https://nlihc.org/state-and-city-funded-rental-housing-programs>. Access date: 5/29/2020.

156 National Housing Law Project. (2017). *Low-Income Housing Tax Credits*. Retrieved from: <https://www.nhlp.org/resource-center/low-income-housing-tax-credits/>. Access date: 5/29/2020.

157 Arizona Capitol Times. (15 Jan 2020). *State LIHTC Can Help Meet Rental Housing Market's Spiking Demand*. Retrieved from: <https://azcapitoltimes.com/news/2020/01/15/state-lihtc-can-help-meet-rental-housing-markets-spiking-demand/>. Access date: 5/29/2020.

158 Arizona Department of Housing. (n.d.). *Arizona Public Housing Authority – Section 8*. Retrieved from: <https://housing.az.gov/general-public/arizona-public-housing-authority-section-8-0>. Access date: 5/29/2020.

- Rental units continue to be built but do little to address the affordability crisis. Average apartment rents in the Metro Phoenix area climbed 8% during 2018, which is almost triple the U.S. rate.¹⁵⁹ Luxury apartments now make up about 87% of new rental construction in metro Phoenix.¹⁶⁰
- Hospitals and healthcare insurers see the impact of poor housing conditions on their patients, as well as their balance sheets. As a result, the healthcare sector is experimenting with how it can support good quality, affordable housing.¹⁶¹ One closely watched pilot is in Phoenix, where UnitedHealthcare provided financing for Chicanos Por La Causa to rehabilitate and operate rental housing.¹⁶²
- Homelessness is up throughout the state. After declining for a number of years, the number of people experiencing homelessness started to increase in 2017.¹⁶³ Maricopa County's rates have been increasing since 2015, with the sharpest increase among those who are unsheltered and literally living on the streets.¹⁶⁴

What barriers need to be addressed?

- **Arizona provides little state funding to support housing affordability and supply.** Historically, the Arizona Housing Trust Fund has been the key state-funded program that supports housing affordability. During the Great Recession, the Legislature depleted the Fund and capped its annual allocation at \$2.5 million, which is down from a high of \$40 million.¹⁶⁵ Since then, the Legislature made a one-time additional investment of \$15 million in 2019 for projects that were largely preselected.¹⁶⁶
- **Not In My Backyard (NIMBY) sentiments** have always slowed development processes, but have picked up new acolytes, including renters and those living in urban centers.¹⁶⁷ Additionally, fervent NIMBY sentiments are often directed at the residents of the housing built for these populations: families with low incomes, those experiencing homelessness, and people who were formerly incarcerated.

What are possible community and policy responses?

- **Establish a state housing tax credit.** Seventeen states have developed a state housing tax credit to leverage the impact of the national Low-Income Housing Tax Credit.¹⁶⁸

159 Reagor, C. (6 Sep 2019). *For \$25, Arizona Home Buyers Can Help Solve the State's Affordable Housing Problem*. Retrieved from: <https://www.azcentral.com/restricted/?return=https%3A%2F%2Fwww.azcentral.com%2Fstory%2Fmoney%2Freal-estate%2Fcatherine-reagor%2F2019%2F09%2F06%2F25-arizona-home-buyers-can-help-solve-states-affordable-housing-problem%2F2211944001%2F>. Access date: 8/12/2020.

160 Reagor, C. (7 Oct 2018). *Almost 90% of New Metro Phoenix Apartments Requiring Hefty Rents*. Retrieved from: <https://www.azcentral.com/story/money/real-estate/catherine-reagor/2018/10/07/most-new-metro-phoenix-apartments-luxury-requiring-heft-rents-survey-rentcafe-apartmentlist/1501030002/>. Access date: 8/12/2020.

161 Bailey, P. (17 Jan 2020). *Housing and Health Partners Can Work Together to Close the Housing Affordability Gap*. Retrieved from: <https://www.cbpp.org/research/housing/housing-and-health-partners-can-work-together-to-close-the-housing-affordability>. Access date: 5/29/2020.

162 Simon, H. (21 Aug 2019). *A Health Insurer and a CDC Collaborate to Move the Needle on Housing and Health*. Retrieved from: <https://shelterforce.org/2019/08/21/a-health-insurer-and-a-cdc-collaborate-to-move-the-needle-on-housing-and-health/>. Access date: 5/29/2020.

163 National Alliance to End Homelessness. (2020). *Arizona*. Retrieved from: <https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-report/arizona/>. Access date: 5/29/2020.

164 Maricopa Association of Governments. (2020). *Point-In-Time Homeless Count*. Retrieved from: <https://www.azmag.gov/Programs/Homelessness/Point-In-Time-Homeless-Count>. Access date: 5/29/2020.

165 National Low-Income Housing Coalition. (15 Jul 2019). *From the Field: State Commits \$15 Million to the Arizona Housing Trust Fund*. Retrieved from: <https://nlihc.org/resource/field-state-commits-15-million-arizona-housing-trust-fund>. Access date: 5/29/2020.

166 Ibid.

167 NYU Furman Center. (30 Aug 2018). *The Stoop*. Retrieved from: <https://furmancenter.org/thestoop/entry/city-nimbys>. Access date: 5/29/2020.

168 NOVOGRADAC. (2020). *Affordable Housing Resource Center: State LIHTC Program Descriptions*. Retrieved from: <https://www.novoco.com/resource-centers/affordable-housing-tax-credits/application-allocation/state-lihtc-program-descriptions>. Access date: 5/29/2020.

- **Encourage private and philanthropic efforts.** Recognizing the potentially devastating impacts of a poorly developed housing ecosystem, private and philanthropic partners are pitching in. For example, the recently established Arizona Housing Fund uses a unique source of funding to support the increase in housing affordability and supply – voluntary donations triggered by real estate transactions, such as when buying, selling, or renting a house.¹⁶⁹
- **Address a key driver of housing development costs: land.** Since 2012, increasing land prices have led to higher development costs; by one estimate, land costs increased by over 80% in Maricopa County and over 43% in Coconino County.¹⁷⁰ Community land trusts maintain permanent ownership, stewardship, and control over land, while offering affordable homeownership options for housing structures situated on the land.¹⁷¹ Arizona has several successful examples, including City of Flagstaff’s program,¹⁷² Pima County Community Land Trust¹⁷³ and Newtown Community Development Corporation.¹⁷⁴
- **Preserve what we have.** Affordable housing is disappearing at a notable rate. One study estimates that over a six year period in the 2010s, Flagstaff lost almost 43% of units renting for less than \$800 per month, while the Phoenix-Mesa-Scottsdale area lost over 36%, and Tucson lost over 21% of similarly priced rentals.¹⁷⁵ Because of the costly and time-consuming nature of new construction, maintaining the existing affordable housing supply and quality – both for rent and for purchase – is a strategy embraced by many communities.¹⁷⁶ Preservation can be supported in a number of ways, including grants, financing options and policies.

“Eviction is a cause, not just a condition, of poverty.”

– Matthew Desmond, *Evicted: Poverty and Profit in the American City*

About the Author

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169 Arizona Housing Fund. (2019). AZ is at a Tipping Point. Retrieved from: <https://arizonahousingfund.org/>. Access date: 5/29/2020.

170 Hermann, A. (22 Jul 2019). Increasing Land Prices Make Housing Less Affordable. Retrieved from: <https://www.jchs.harvard.edu/blog/increasing-land-prices-make-housing-less-affordable/>. Access date: 5/29/2020.

171 Community-Wealth.org. (n.d.). Overview: Community Land Trusts (CLTs). Retrieved from: <https://community-wealth.org/strategies/panel/clts/index.html>. Access date: 5/29/2020.

172 The City of Flagstaff Arizona. (n.d.). Land Trust Program. Retrieved from: <https://www.flagstaff.az.gov/928/Community-Land-Trust-Program>. Access date: 5/29/2020.

173 Pima County Community Land Trust. (n.d.). Community Land Trust. Retrieved from: <https://www.pcclt.org/>. Access date: 5/29/2020.

174 Newtown CDC. (2020). What We Do: Community Land Trust. Retrieved from: <https://newtowncdc.org/what-we-do/community-land-trust.html>. Access date: 5/29/2020.

175 Joint Center for Housing Studies of Harvard University. (2020). The Low-Rent Stock in Most Metros Has Declined Substantially Since 2011. Retrieved from: <https://www.jchs.harvard.edu/son-2019-low-rent-units-map>. Access date: 5/29/2020.

176 Treskon, M., McTarnaghan, S. (25 Aug 2016). Preserving Affordable Housing: What Works. Retrieved from: <https://www.urban.org/urban-wire/preserving-affordable-housing-what-works>. Access date: 5/29/2020.

The Role of Transportation and Safe Streets in Creating Vibrant Communities

Emily Yetman, Living Streets Alliance

This topic intersects and explores these elements of a vibrant community:



TRANSPORTATION



ENVIRONMENTAL QUALITY



ACCESS TO CARE



PARKS AND RECREATION



COMMUNITY DESIGN



COMMUNITY SAFETY



HEALTH EQUITY

Introduction

There are many opportunities to improve vibrancy by re-examining and re-imagining how our communities interact with streets and transportation. This is because Arizona was largely developed in the era of, and to accommodate the movement of, the personal automobile. During much of the past century, the economy boomed, and cities grew and spread out across open space. Now, data points to unintended consequences of rapid growth. Traffic deaths and injuries are at an all-time high, chronic diseases linked to inactivity are becoming more common, and poor air quality is damaging people's physical health, especially among the youngest and oldest community members. Arizona cities and towns alike struggle to keep up with the financial burden of maintaining current transportation infrastructure, and any sort of upgrade competes with other essential programs and services, such as emergency response systems, parks and libraries, and job training. More recently, small towns are losing their brightest youth to big cities with more opportunities to live car-free or car-lite, while cities struggle to manage congestion and the sheer volume of people needing to move around on a daily basis.

Re-imagining how transportation can improve community vibrancy begins with two key points:

1. In most municipalities, streets are the largest form of public space, greater than parks and open space combined.
2. While many think of streets as just spaces to move through, they are packed with potential to become environments that foster community engagement with art, connection, socialization, and safety for families and multiple generations.

Traditionally, transportation in Arizona has been straightforward: build roads to move cars to get to places. Yet communities are learning that improved social, health, and economic outcomes are seen over time in communities that have gone beyond using streets for a singular purpose. Now is an important opportunity for Arizonans to consider what kind of future they want and to consider acting based on this data to forge a new path forward. While transportation is crucial for allowing Arizonans to get to and from work, healthcare appointments, grocery stores, and many other important aspects of life, it may also be beneficial for Arizonans to make a fundamental shift in the way communities view, utilize, and manage one of their greatest assets: their streets.

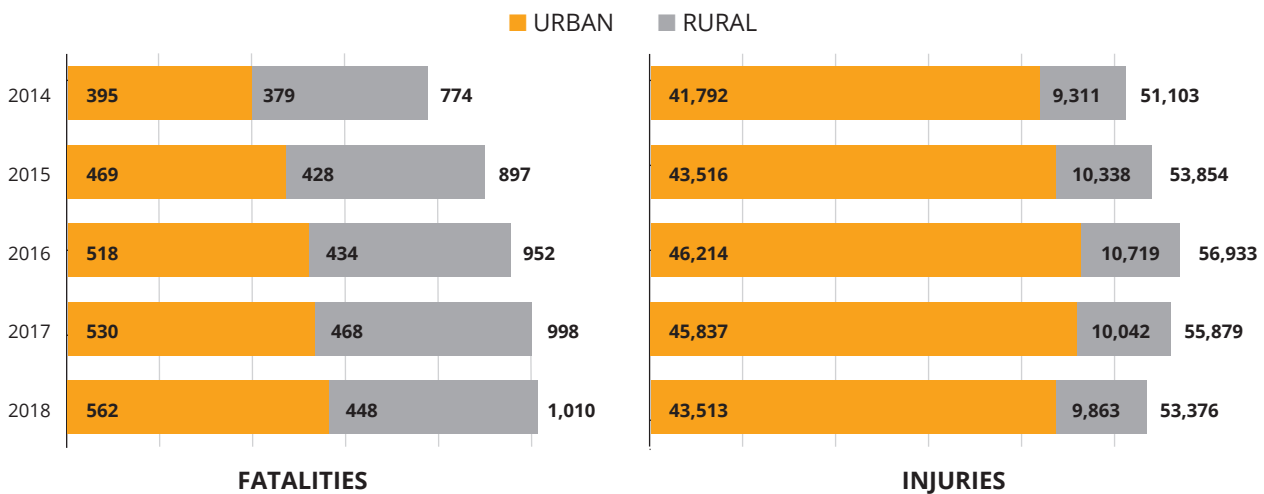
Unsafe Streets Limit Vibrancy

Currently, many areas and corridors within Arizona are unsafe for both people who drive and walk. Data increasingly reveals that streets are built in such a way that makes it more likely for individuals to do something that will result in a crash. Over a thousand people are killed in traffic crashes in Arizona every year, and tens-of-thousands more are injured. It is the leading cause of death from injury for people between the ages of 5 and 24 in Arizona.¹⁷⁷ These statistics are staggering, and even though most people have either been in a crash themselves, or are closely connected to someone who has, the deeper toll that traffic violence takes on communities largely goes unnoticed. When added up, external costs like missed productivity at work, emergency response, medical bills, legal costs, damage to personal property, and life impact create a major cost for individuals, families, and municipalities. For a financially stable family, it can be a huge inconvenience or setback. For a family struggling to get by, it can be devastating, creating a debt cycle that becomes extremely difficult to escape, which impacts all aspects of family well-being.

Outside of crash injuries, other negative physical health outcomes can result from the way streets are built. Inactive lifestyles can result in several chronic diseases, including obesity. Poor air quality also contributes to adverse health outcomes, including asthma and other respiratory disease development in younger children.

While crash and traffic injuries and fatalities are high in metro and urban areas, rural areas make up a significant amount of injuries and fatalities, as seen in the figure below. As shown, it is estimated that in 2018, rural traffic fatalities made up 44.3% of all Arizona traffic fatalities.

ARIZONA TRAFFIC FATALITIES AND INJURIES¹⁷⁸



Source: Arizona Department of Health Services.

¹⁷⁷ Arizona Department of Health Services. (n.d.). *Arizona Injury Prevention Plan, 2012-2016*. Retrieved from: <https://www.azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/injury-prevention/az-injury-surveillance-prevention-plan-2012-2016.pdf>. Access date: 5/29/2020.

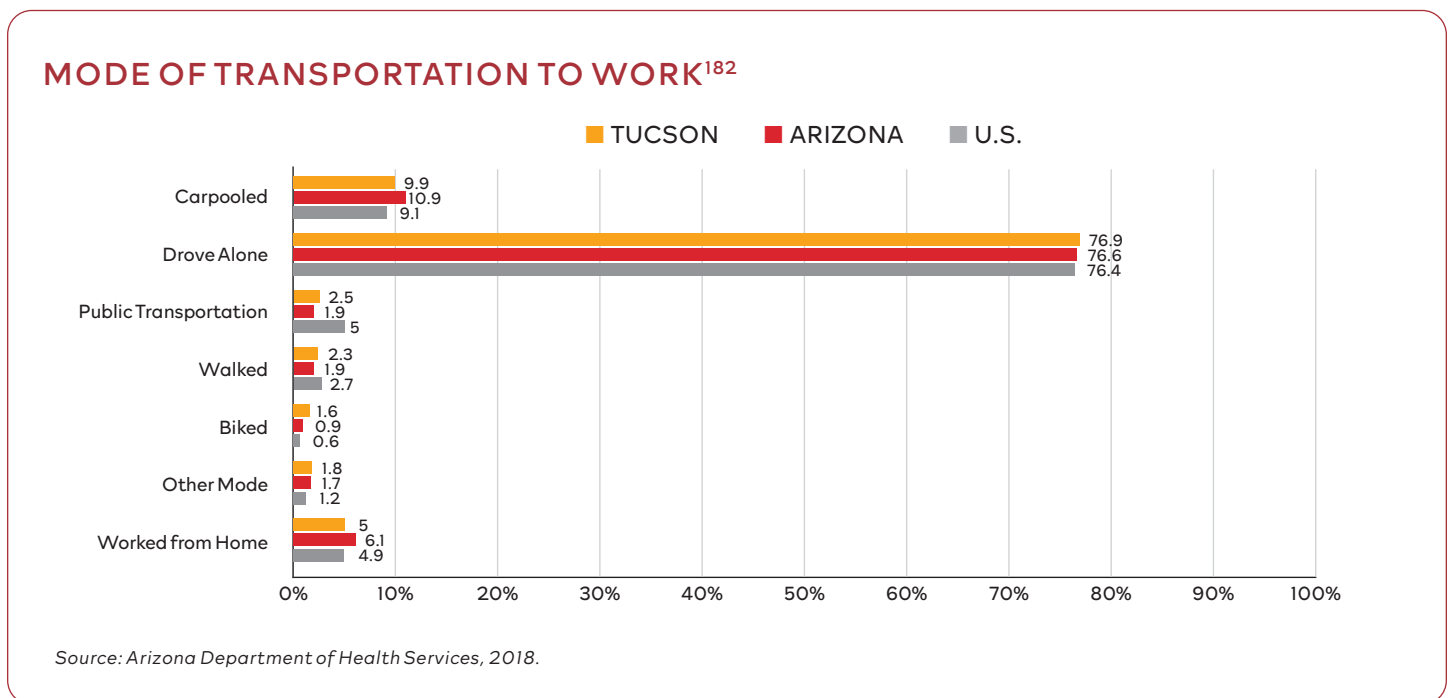
¹⁷⁸ The Arizona Department of Transportation. (18 Jun 2019). *2018 Motor Vehicle Crash Facts for the State of Arizona*. Retrieved from: <https://azdot.gov/sites/default/files/news/2018-Crash-Facts.pdf>. Access date: 5/29/2020.

Additionally, the current built environment around transportation serves as a well-being and vibrancy barrier in communities. Freeways and major thoroughfares have divided many communities over the years, resulting in social fragmentation, isolation, and loneliness. This lack of social interaction is occurring in so many communities that in a survey conducted by Cigna, in 2019, 61% of Americans reported being lonely.¹⁷⁹

Furthermore, Arizona is ranked as the 9th most dangerous state for people walking in the U.S.¹⁸⁰ This means that people of low socioeconomic status are disproportionately put at risk, as they are more likely to rely on biking, walking, and transit while also living in disinvested parts of town that force them into unsafe conditions.

The Need for Safe Streets and Community Spaces

While the majority of Arizonans choose to drive alone to work (as seen in the figure below), people with disabilities are twice as likely to have inadequate transportation options.¹⁸¹ Without reliable, connected, and multi-modal transportation options, they miss out on opportunities to thrive and stay connected to their communities.



Despite existing barriers, cities and towns all over the world are experiencing success with improving outcomes and overall quality of life by making a firm commitment to streets designed with *people* in mind. This includes people of all ages, abilities, and socioeconomic statuses; people on foot, on bike, using transit, *and* in cars.

179 Cigna. (2020). *Loneliness and the Workplace*. Retrieved from: <https://www.cigna.com/static/www-cigna-com/docs/about-us/newsroom/studies-and-reports/combating-loneliness/cigna-2020-loneliness-infographic.pdf>. Access date: 5/29/2020.

180 Smart Growth America. (2019). *Dangerous by Design 2019*. Retrieved from: <https://smartgrowthamerica.org/dangerous-by-design/>. Access date: 5/29/2020.

181 Making Action Possible for Southern Arizona. (2018). *Transportation to Work*. Retrieved from: <https://mapazdashboard.arizona.edu/infrastructure/transportation-work>. Access date: 5/29/2020.

182 American Association of People with Disabilities. (n.d.). *Equity in Transportation for People with Disabilities*. Retrieved from: <http://www.civilrightsdocs.info/pdf/transportation/final-transportation-equity-disability.pdf>. Access date: 5/29/2020.

The Availability and Consequences of Arizona Transportation Systems

While the current transportation system in Arizona has weaknesses, many Arizonans do not even have reliable access to the system. For instance, in a poll distributed to over 400 Arizona residents in 2012, nearly 70% are unsatisfied with the state's transportation system, and almost one-third of participants reported there being a lack of public transit.¹⁸³ In addition to this, the high volume of those traveling by motor vehicle has severely impacted Arizona's air quality. In 2019, while Tucson's air quality was rated to be good 61.6% of the time, this was only true of 13.7% of days in the Phoenix area.¹⁸⁴

Even when reliable transportation is available, it can be expensive. For example, it is expensive to own a car and drive, as it comes along with additional expenses like car insurance, gas, and basic maintenance. If the need to use a car is eliminated or decreased, it would likely lead to extensive economic and health benefits overtime. With Arizona's current infrastructure, there are several major transportation-related costs, such as:

- Maintenance of streets and highways: Currently, there is \$50 million budgeted for FY23 for just improvement of the I-10 freeway, and \$78 Million to replace and expand a *single* bridge across the Gila river in the FY21 budget.¹⁸⁵
- Cost of crashes: In 2018, it is estimated that motor vehicle crashes were responsible for \$19.349 billion worth of economic losses in Arizona.¹⁸⁶
 - Medical bills: In 2013, the medical costs relating to crash deaths in Arizona were estimated to be about \$11 million.¹⁸⁷
 - Police and Emergency Medical Services (EMS) response associated time and costs.
 - Property damage costs due to motor vehicle crashes, which totaled close to \$972 million in 2018.¹⁸⁸
- Health costs resulting from lack of physical activity.¹⁸⁹
- Annual congestion cost: In 2017, the total annual value of travel delay and excess fuel consumption for each auto commuter in the Phoenix-Mesa area was \$3.3 billion.¹⁹⁰

183 Arizona Forward. (Oct 2012). *Are We There Yet? The Role of Transportation in Driving Arizona's Global Economy*. Retrieved from: https://www.arizonaforward.org/resources/Pictures/ARE_WE_THERE_YET.pdf. Access date: 5/29/2020.

184 Making Action Possible for Southern Arizona. (2019). *Air Quality*. Retrieved from: <https://mapazdashboard.arizona.edu/quality-place/air-quality>. Access date: 5/29/2020.

185 Ducey, D. (Jan 2020). *State of Arizona Executive Budget*. Retrieved from: https://azgovernor.gov/sites/default/files/related-docs/budget_summary.pdf. Access date: 6/1/2020.

186 The Arizona Department of Transportation. (18 Jun 2019). *2018 Motor Vehicle Crash Facts for the State of Arizona*. Retrieved from: <https://azdot.gov/sites/default/files/news/2018-Crash-Facts.pdf>. Access date: 5/29/2020.

187 Center for Disease Control and Prevention. (2015). *Motor Vehicle Crash Deaths: Costly but Preventable*. Retrieved from: <https://www.cdc.gov/motorvehiclesafety/pdf/statecosts/AZ-2015CostofCrashDeaths-a.pdf>. Access date: 5/29/2020.

188 Arizona Department of Transportation. (2018). *2018 Motor Vehicle Crash Facts for the State of Arizona*. Retrieved from: <https://azdot.gov/sites/default/files/news/2018-Crash-Facts.pdf>. Access date: 5/29/2020.

189 American Public Health Association. (Mar 2010). *Backgrounder: The Hidden Health Costs of Transportation*. Retrieved from: https://www.apha.org/~media/files/pdf/topics/transport/hidden_health_costs_of_transportation_backgrounder.ashx. Access date: 5/29/2020.

190 Texas A&M Transportation Institute. (2019). *Urban-Mobility Report: Phoenix-Mesa, AZ*. Retrieved from: <https://mobility.tamu.edu/umr/congestion-data/>. Access date: 5/29/2020.

While improving streets and sidewalks may incur costs, there is potential for positive return on investment (ROI). By providing more options to travel than driving or taking the bus, the wear and tear on the transit network would likely decrease significantly. In addition to this, the costs of improving streets often can be less than expected. For example, changing signal timing at intersections to allow more time for pedestrian crossing costs nothing, while adding countdown clocks can be as little as \$2,000 per intersection.¹⁹¹ While larger, more costly changes can result in significant positive health outcomes, making small, little to no cost changes can also see significant ROI and increase community safety.

New Approaches and Potential Solutions

There are currently many approaches being explored and adopted in Arizona communities, as well as in other states and internationally, that work to address issues outlined in this chapter. These solutions often require change at the level of policies, systems, and environments, which makes collaboration imperative. The Arizona Department of Transportation (ADOT) is responsible for planning, building, and maintaining the highway system in the state so collaboration with ADOT to implement changes within Arizona's transportation system is critical in creating systemic change. Such collaboration includes providing input on ADOT's Five-Year Plan, which provides guidance on how ADOT funds get allocated over a five-year period.¹⁹² Coordination and partnership with ADOT is particularly important for rural and tribal communities, as national best practices around land use and active transportation are typically more focused around urban or suburban areas. This further illuminates the importance of incorporating community input in the planning process.

A couple of specific, notable approaches that have proven to be successful in improving health outcomes through systemic changes within transportation include Vision Zero and Complete Streets:

- **Vision Zero:** Vision Zero is a data-driven approach to the goal of eliminating crashes and fatalities related to roadways. This is done by exploring different ways of modifying and redesigning streets and roadways to minimize the number of crashes that happen in that area. This framework originated in the Netherlands and in Oslo, the Norwegian capital; their success with Vision Zero has resulted in zero pedestrian and cyclist fatalities in 2019.¹⁹³ Tucson is working on implementing this approach¹⁹⁴ and the City of Tempe also adopted a Vision Zero policy approach in 2019.¹⁹⁵

191 Smart Growth America & National Complete Streets Coalition. *Costs of Complete Streets*. Retrieved from: <https://www.smartgrowthamerica.org/app/legacy/documents/cs/factsheets/cs-costs.pdf>. Access date: 5/29/2020.

192 Arizona Department of Transportation. (2020). *Tentative Five-Year Program*. Retrieved from: <https://azdot.gov/planning/transportation-programming/tentative-five-year-program>. Access date: 5/29/2020.

193 Coulon, J. (7 Jan 2020). *Oslo Just Proved Vision Zero Is Possible*. Retrieved from: <https://www.bicycling.com/news/a30433288/oslo-vision-zero-goal-2019/>. Access date: 5/29/2020.

194 City of Tucson. (n.d.). *Mayors' Challenge for Safer People, Safer Streets*. Retrieved from: https://www.tucsonaz.gov/files/transportation/Mayors_Challenge_Assessment_Final_for_Web_0.pdf. Access date: 5/29/2020.

195 City of Tempe. (2020). *Vision Zero*. Retrieved from: <https://www.tempe.gov/government/engineering-and-transportation/transportation/vision-zero>. Access date: 5/29/2020.

- **Complete Streets:** The premise of Complete Streets emphasizes the importance of changing a street based on the context around it. This approach identifies safety as a key consideration when designing spaces and streets for people of all ages and abilities, regardless of whether they drive, walk, bike, or use public transportation. Complete Streets policies are set at the state, regional, and local levels and are frequently supported by roadway design guidelines.¹⁹⁶ In Arizona, eight entities including Metropolitan Planning Organizations (federally funded and mandated transportation policy-making organizations) have adopted some type of Complete Street policy, resolution, or guideline.¹⁹⁷

Building physical activity into the way communities get around is not only about modifying means of transportation, but also about reconsidering land use. People are more likely to walk or bike to places if they are nearby, so it may be important to consider orienting places, like coffee shops and grocery stores, so that they are more accessible to other modes of transportation. Such a shift in thinking about community design could greatly benefit the vibrancy of a community.¹⁹⁸ This is especially true in rural communities, where people live 10-20 miles or more away from the nearest grocery store.

For many individuals, a barrier to exploring other means of transportation is the mindset that if they are trying to change how they get around, they need to do this for all their trips. A few changes can make a big impact. For example, walking or biking to the grocery store but continuing to drive or take the bus to work is still going to have an overall positive impact. A similar barrier is present when exploring the topic of changing street design. As previously mentioned, small changes can have a large impact; not every street needs to be “complete.” Not every corridor has to be walkable and bikeable. Instead, communities may benefit from context-relevant changes that encourage complementary multi-modal transportation options in parallel corridors that take land use variation into account.

Vibrant Communities and Transportation

Reliable transportation, whether it be by foot, bike, bus, or car, is necessary for the daily life of almost all Arizonans. How people and communities get to and from where they are going drastically affects their well-being, environment, and community. Even if an individual has full healthcare coverage, money for food, can qualify to attend an educational institution, and is employed at a steady job, they are unable to access any of those things without adequate transportation. In addition to this, environments that do not allow for multi-modal means of transport often force community members to use cars and feel unsafe or unable to walk or bike outside their place of residence. This greatly impacts the physical and mental health and wellness of many Arizona communities. Transportation is an important piece of what enables or inhibits community vibrancy.

196 U.S. Department of Transportation. (24 Aug 2015). *Complete Streets*. Retrieved from: <https://www.transportation.gov/mission/health/complete-streets>. Access date: 5/29/2020.

197 Smart Growth America. (2020). *Complete Streets Policies Nationwide*. Retrieved from: <https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/policy-development/policy-atlas/>. Access date: 5/29/2020.

198 For more information on Community Design and Built Environment see chapter titled: “The Role of Built Environment in Creating Healthy Communities”.

To Learn more

- <https://www.strongtowns.org>
- <https://www.880cities.org/>
- *The Pop-up Placemaking Toolkit* recently released by AARP Livable Communities. Download at: https://cp.email.aarp.org/LC_Downloadhttps://nacto.org/

"When you say "no" to something, you say "yes" to something else. This is especially important because there are so many hidden costs to decisions. We need to make sure that if we are saying "no" to housing density, we are saying "yes" to sprawl, or that if we say "no" to a bike lane on our street, we are saying "yes" to air pollution."

- Gil Penalosa

About the Author

Emily Yetman, Founder, Living Streets Alliance

Emily Yetman is founder and Executive Director of Living Streets Alliance (LSA), a non-profit organization that advocates for a thriving Tucson by creating streets for everyone. With a vision of streets as living public spaces that connect people and places, LSA has played a key role in advocating for the recently adopted Tucson Complete Streets policy as well as Proposition 407, the 2018 voter-approved \$225M bond to improve parks and create biking and walking connections within the city of Tucson.

The Role of Food Systems in Vibrant Communities

Adrienne Udarbe, Pinnacle Prevention

This topic intersects and explores these elements of a vibrant community:



For many Arizonans, healthful food is out of reach. Bringing food from the farm to the table involves a resilient, high-functioning system of growing, harvesting, production, processing, distribution, waste, and all the many layers in between. A vibrant and resilient food system addresses access to quality food with consideration for history, place, culture, and policy. Food is a fundamental aspect of life, and as such, intentional community design around access to quality, affordable food is a vital consideration for overall health outcomes in Arizona.

The Food Systems Landscape Amid COVID-19

COVID-19 has resulted in greater awareness of how critical food systems are in our everyday lives. In some cases, we have seen declining farm income due to business closures and in other cases we have seen increased demand for local foods resulting from supply chain interruptions and distribution restrictions. We are seeing increased demand for local food delivery services without the infrastructure to meet the demand. While food is often what brings people together, we have had to explore what this looks like in a different way. We have seen increased isolation and increased food insecurity resulting from income losses and increased unemployment which puts a greater demand on the emergency food system. We have also seen amazing resilience and innovation in response to changing needs. Farmers Markets have quickly adopted and implemented online pre-ordering systems and drive-thru markets. Farmers have increased availability of and accessibility to pre-ordered fruit and veggie boxes. Tribal nations have increased distribution of food, water, and included native foods in new delivery models. Now more than ever, there is an opportunity to imagine a new system.

The Consequences of Food Insecurity

When individuals lack access to quality, affordable foods, they are vulnerable to experiencing both physical and mental health issues, which may evolve into chronic diseases like heart disease, diabetes, and obesity. Poor food access may also impact other social determinants of health in a person's life, such as educational outcomes, economic opportunity, and housing. The tolls of hunger and malnutrition are vast. Feeding America¹⁹⁹ released national data that indicated over 58% of households they serve have a member that suffers from high blood

199 For more information on Feeding America, visit this website: <https://www.feedingamerica.org/>.

pressure and 33% of households they serve contain an individual suffering from diabetes.²⁰⁰ In addition to this, children who are at risk for hunger are proven to be more likely to struggle in school.²⁰¹ This interconnectivity reveals the importance of addressing the need for increased access to quality, affordable food in Arizona communities. Discussion about food insecurity is most productive when considering: “What is needed to establish a healthy environment and support a healthy relationship with food?”

In Arizona, one in eight people struggle with hunger and one in five children experience hunger. In total, this accounts for about 979,000 individuals.²⁰² Furthermore, there are clear disparities seen when examining populations that experience the highest rates of food insecurity. Tribal and rural communities are greatly burdened by food insecurity, which results from stagnating wages, insecure work, and minimal social protections. Older adults also face food insecurity disproportionate to other populations. It is estimated that in order to meet the food needs of those facing hunger in Arizona, it would cost over \$450 million per year.²⁰³

Roadblocks to a Healthy Food System and How to Overcome Them

Today, conversations around food and health may result in feelings of shame – either about one’s physical appearance or the type of food they eat. This concept of “healthism” is best defined by Dr. Lucy Aphramor, PhD, RD as “a belief system that sees health as the property and responsibility of an individual and ranks the personal pursuit of health above everything else, like world peace or being kind. It ignores the impact of poverty, oppression, war, violence, luck, historical atrocities, abuse and the environment from traffic, pollution to clean water and nuclear contamination, and so on. It protects the status quo, leads to victim blaming and privilege, increases health inequities, and fosters internalized oppression. Health-ism judges people’s human worth according to their health.”²⁰⁴ Registered Dietitian, Christy Harrison, goes on to further describe the healthism diet culture as “a system of beliefs that worships thinness and equates it to health and moral virtue; promotes weight loss as a means of attaining higher status; demonizes certain ways of eating while elevating others; and oppresses people who don’t match up with its supposed picture of ‘health’.”²⁰⁵

Nourish – a nutrition movement from Pinnacle Prevention – was born out of conversations with community members who reported often equating shame with food and nutrition work, or health work in general. There is also an underlying political and economic context that relies on individualism, which additionally impacts the work in this space. There are also omnipresent retail food marketing practices that influence Arizona’s food paradigm and buying habits.

200 Feeding America. (2020). *Importance of Nutrition on Health in America*. Retrieved from: <https://www.feedingamerica.org/hunger-in-america/impact-of-hunger/hunger-and-nutrition>. Access date: 5/29/2020.

201 Ibid.

202 Feeding America. (2019). *Hunger in Arizona*. Retrieved from: <https://www.feedingamerica.org/hunger-in-america/arizona>. Access date: 5/29/2020.

203 Ibid.

204 O’Toole, J. (6 Oct 2016). *Healthism*. Kartini Clinic for Children and Families. Retrieved from: <https://benourished.org/what-is-health-ism/>. Access date: 5/29/2020.

205 Harrison, C. (10 Aug 2018). *What is Diet Culture?* Retrieved from: <https://christyharrison.com/blog/what-is-diet-culture>. Access date: 5/29/2020.

This leads into the policy work. A good portion of conversations with public officials involves dispelling myths and perceptions about those who are 'unhealthy' or are participating in public assistance programs. Furthermore, many organizations working to reduce food insecurity and foster food system change face a lack of federal, state, and local funding. Despite this lack of funding, there are still many examples of successful initiatives within Arizona that work to deliver fresh, healthy, and affordable food to underserved populations.

One example is the Double up Food Bucks program.²⁰⁶ This program gives SNAP (The U.S. Department of Agriculture's Supplemental Nutrition Assistance Program) eligible people incentive to buy more Arizona-grown fruits and vegetables. For every \$1 spent on SNAP eligible food items, participants receive \$1 to spend on fresh fruits and vegetables for up to \$20 per day. Another successful program is the Sun Produce Cooperative initiative,²⁰⁷ which assists with the economic development of local food sources. This initiative has been successful, as it has increased consumption of local food within the state.

In addition to the barriers addressed previously, many Arizonans struggle to gain access to healthy food due to socio-economic status. In 2018, almost 29.1% of low-income households (households with incomes below 185% of the poverty threshold) were defined as food insecure compared to the 11.1% national average.²⁰⁸ Poverty and income can greatly affect a person's ability to access healthy, affordable food for a multitude of reasons including: lack of transportation, lack of funds, lack of time (due to holding multiple jobs), and distance from local grocery stores or farmers markets.

Responses at the Federal and State Level

While there is much that needs to be addressed in the Arizona food system, there are programs and cooperatives working to mitigate many of these issues. For example, the coordinated Hunger Relief Program run through the Arizona Department of Economic Security is a partnership among many hunger relief organizations such as food banks and action alliances working to help communities apply for nutrition assistance benefits.²⁰⁹ In addition to this, the Arizona Hunger Advisory Council released an "Arizonans Preventing Hunger Action Plan" in 2017 that contains goals and suggestions that may be effective in preventing hunger in Arizona.²¹⁰

At the federal level, there are three potential actions that might enhance food systems: (1) protect and strengthen SNAP funding and continue to incentivize healthy food options for SNAP families, (2) protect and strengthen beginner farmer and rancher programs, streamline farmer and rancher regulations to reduce burden, and consider farmer student loan forgiveness programs, (3) increase funding and culturally relevant options in Child Nutrition Reauthorization.

206 Double Up Food Bucks Arizona. (n.d.). *Double Up Food Bucks Arizona*. Retrieved from: <https://www.doubleupaz.org>. Access date: 5/29/2020.

207 Sun Produce Cooperative Initiative. (n.d.). *About*. Retrieved from: <https://sunproducecoop.com/pages/about>. Access date 5/29/2020.

208 United States Department of Agriculture Economic Research Service (USDA-ERS). (2018). *Food Security Status of U.S. Households in 2018*. Retrieved from: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>. Access date: 5/29/2020.

209 Arizona Department of Economic Security. (2020). *Coordinated Hunger Relief Program Community Partners*. Retrieved from: <https://des.az.gov/services/basic-needs/food-assistance/coordinated-hunger-relief-program-community-partners>. Access date: 5/29/2020.

210 The Arizona Hunger Advisory Council. (2017). *Arizonans Preventing Hunger Action Plan 2017*. Retrieved from: <https://des.az.gov/sites/default/files/media/Arizonans-Preventing-Hunger-Action-Plan-July-2017.pdf>. Access date: 5/29/2020.

At the state level, there are many opportunities and actions that could strengthen food systems:

1. Support economic development within the food system, including advancing farming as a pathway to entrepreneurship and source of security for Arizona communities. Another example might include directing funding to regional food supply chain infrastructure development and healthy food business investments in underserved communities through financing and grants.
2. Establish targets for state-funded institutions to procure Arizona-grown products.
3. Leverage federal funding opportunities for state-led/state pass-through-programs that develop healthy regional food systems.²¹¹
4. Implement working lands conservation programs for small food producer land access.
5. Increase cross-sector collaboration, as seen with the Arizona Food Systems Network.²¹²

In the 2020 Legislative Session, SB1221 (Recurring Appropriation for AZ SNAP Fruit and Veg Incentive Bill) was proposed, and would reinstate the appropriation from 2018, and SB1206 (AZ Agriculture Workforce Development bill Appropriation) would provide incentive to food producing agricultural organizations to hire interns and partially reimburse their costs.²¹³ Both bills ultimately did not pass due to the early closure of the session due to COVID-19; however, the AZ SNAP Fruit and Veg Incentive did receive one-time COVID relief funding from the Governor's office in response to the pandemic. These food system bills are projected to be revisited in the next regular session.

Responses from Other States

Collaboration is key to systems change and establishing productive coalitions has been proven to effectively foster systems change and catalyze community involvement. An example of a coalition that did exactly this is the Native Farm Bill Coalition. The goal of this coalition was to campaign for indigenous nutrition that advocated for and protected Native American interests during the curation of the 2018 farm bill. This effort resulted in 63 different provisions within the farm bill that benefited Indian Country across the United States.²¹⁴

211 Examples of this include but are not limited to: CDC's Chronic Disease and Health Promotion: Food Access and Regional Food System Development, USDA AMS Specialty Crop Block Grants, USDA Farmers Market Equipment Grants that provide SNAP processing equipment and state-led technical assistance, HUD Downtown and Community Economic Development funding and technical assistance to support healthy food businesses, farmers markets and food supply chain infrastructure. HUD CDBG funding to support infrastructure for healthy regional food supply chains and healthy food businesses; USDA Rural Development funding and technical assistance to support small and medium-sized farmers, minority farmers, new and beginning farmers, healthy food businesses, farmers markets and food supply chain infrastructure.

212 Arizona Food Systems Network. (2018). About the Arizona Food Systems Network. Retrieved from: <https://www.azfsn.org>. Access date: 5/29/2020.

213 Arizona Legislature. (2020). SB1206. Retrieved from: <https://www.azleg.gov/legtext/54leg/2r/bills/sb1206p.pdf>. Access date: 5/29/2020.

214 Seeds of Native Health: A Campaign for Indigenous Nutrition. (2019). *Native Farm Bill Coalition*. Retrieved from: <https://seedsofnativehealth.org/native-farm-bill-coalition/>. Access date: 5/29/2020.

To Learn More

- Talk Poverty: <https://talkpoverty.org/>
- Civil Eats: <https://civileats.com/>
- The Counter (Formerly The New Food Economy): <https://thecounter.org/>
- National Sustainable Agriculture Coalition: <https://sustainableagriculture.net/>
- Fair Food Network: <https://fairfoodnetwork.org/>
- Food Tank: <https://foodtank.com/>
- Change Lab Solutions: <https://www.changelabsolutions.org/>
- Center for Good Food Purchasing: <https://goodfoodpurchasing.org/>
- Food Policy Action: <https://foodpolicyaction.org/>
- Food and Environment Reporting Network: <https://thefern.org/>
- National Farm to School Network: <http://www.farmentoschool.org/>
- UConn Rudd Center for Food Policy and Obesity: <http://www.uconnruddcenter.org/>
- Berkeley Media Studies Group (BMSG): <http://www.bmsg.org/>
- Seeds of Native Health: <https://seedsofnativehealth.org/native-farm-bill-coalition/>

"People try to make healthy choices under radically different conditions, depending on their income, employment status, educational level, and access to resources – all of which are shaped by entrenched racial, class, and gender inequalities. The prevalence of cheap unhealthy food, low-wage labor, and exclusionary welfare policies conflicts with the real health needs of a low-income population that cannot afford to self-regulate in the way that more affluent Americans do."

– Maggie Dickinson, Author of Feeding the Crisis

About the Author

Adrienne Udarbe, Founding Director, Pinnacle Prevention

Adrienne Udarbe is founding Director of Pinnacle Prevention where she leads innovative efforts in food systems, active living, health policy, and research. With more than a decade of experience in public sector settings, Adrienne is a passionate advocate inspired by good causes, good people, and good food.

The Intersection of Education and Vibrant Communities

Vitalyst Staff

This topic intersects and explores these elements of a vibrant community:



Education plays an essential role in creating vibrant communities. In fact, education may be considered “the single most important modifiable social determinant of health.”²¹⁵ Educational attainment, or the highest level of education completed, has been positively associated with income level, access to resources, overall health outcomes, and even life expectancy.²¹⁶ In other words, the higher the level of education that a person completes, the more likely they are to live a healthier, wealthier, and longer life. Educational opportunity similarly influences social cohesion, and community safety, while tending to reduce criminal justice involvement. Education systems have a unique opportunity to increase connectivity between children, families, and the communities they serve.²¹⁷ Importantly, there are intergenerational impacts of education, as the parents’ educational attainment impacts their own children’s education experiences.²¹⁸ This chapter provides a snapshot of current education data with a focus on highlighting opportunities.

[Note: as previously discussed in “Funding Pre-K-12 Education” (110th Arizona Town Hall report), many sources publish Arizona education data, oftentimes inconsistently.²¹⁹ Data used here are reconciled within this report and include source citations.]

An Arizona Report Card: Failing

Arizona is ranked 49th for public education in the United States (including Washington D.C.).²²⁰ An inadequate educational system has deeply negative consequences for overall well-being and Arizona’s future vibrancy. The state’s youngest students are ground zero. Early childhood education plays a critical role in brain development and prepares children for primary education. In Arizona, only 22% of three- and four-year-olds are enrolled in high quality preschool settings.²²¹ Early childhood development and enrollment in high quality education are

215 McGill, N. (2016). *Education Attainment Linked to Health Throughout Lifespan: Exploring Social Determinants of Health*. The Nation’s Health. Retrieved from: <http://thenationshealth.aphapublications.org/content/46/6/1.3>. Access date: 5/29/2020.

216 Zajacova, A. and Lawrence, E.M. (2018). *The Relationship Between Education and Health: Reducing Disparities Through a Contextual Approach*. Retrieved from: <https://www.annualreviews.org/doi/pdf/10.1146/annurev-publhealth-031816-044628>. Access date: 5/29/2020.

217 Oder, Elizabeth. (2005). “The social cohesion role of educational organizations: Primary and secondary schools.” *Peabody Journal of Education* 80(4), 78-88. doi:10.2307/3497053.

218 McGill, N. (2016). *Education Attainment Linked to Health Throughout Lifespan: Exploring Social Determinants of Health*. The Nation’s Health. Retrieved from: <http://thenationshealth.aphapublications.org/content/46/6/1.3>. Access date: 5/29/2020.

219 Arizona Town Hall. (2017). *Funding Pre-K-12 Education*. 110th Arizona Town Hall background report. Retrieved from: <https://aztownhall.org/resources/Documents/110%20Funding%20preK-12%20Education%20Background%20Report%20web.pdf>. Access date: 5/29/2020.

220 McCann, A. (29 Jul 2019). *States with the Best & Worst School Systems*. Retrieved from: <https://wallethub.com/edu/e/states-with-the-best-schools/5335/>. Access date: 5/29/2020.

221 Arizona Early Childhood Funders Collaborative. (2020). *Born to Learn AZ*. Retrieved from: <http://borntolearnaz.com/the-facts/>. Access date: 5/29/2020.

associated with positive, long-term education outcomes, including increased high school graduation rates – which is a crucial milestone for vibrant communities. In 2018, Arizona’s overall four-year high school graduation rate was 78.02%,²²² one of the lowest in the country.²²³ According to the Arizona Education Progress Meter, the majority of jobs require post-high school education, yet only slightly over half of students enroll in higher education or advanced training after high school.²²⁴ Meanwhile, 13% of Arizonans ages 16–24 who are neither enrolled in school nor working are categorized as “Opportunity Youth.” Data analysis suggests a correlation between the Opportunity Youth designation and negative individual outcomes, as well as community-level economic and social consequences.²²⁵ Finally, conversations around the education system cannot be held without considering Arizona’s teachers. According to a 2017 report, Arizona elementary teacher pay is ranked last in the country while high school teacher pay is ranked 49th (adjusted for cost of living).²²⁶

Educational attainment is a useful predictor of short- and long-term outcomes, but a focus on quality education is paramount to vibrant communities. Quality education goes beyond test scores and graduation rates to focus on the growth of the whole child –intellectually, emotionally, and socially. Quality education recognizes the critical need to apply an equity lens, acknowledging that education is not currently created equally for all children.²²⁷

Inequities within Arizona’s School System

For students of color, those living in rural areas, and students experiencing poverty, available data reveals significant differences in education outcomes. For example, when comparing graduation rates, White students’ four-year graduation rate was higher (82.87%) than African American students (73.85%), Latino students (74.56%), and Native American students (66.97%).²²⁸ Students considered to be of low socioeconomic status also experienced a lower graduation rate (72.34%).²²⁹

Additional examples of systemic disparities, which have a significant impact on student success, include the following:

- In Arizona, schools that serve mostly non-White students get 46% fewer dollars than mostly White schools. This is a \$7,613 difference per student. High poverty White school districts have \$10,964 more per student compared to high poverty non-White school districts.²³⁰

222 Arizona Department of Education (n.d.) *AZ School Report Cards*. Retrieved from: <https://azreportcards.azed.gov/state-reports>. Access date: 5/29/2020.

223 Kerr, E. and Shin, M. (2020). *See High School Graduation Rates by State*. U.S. News. Retrieved from: <https://www.usnews.com/education/best-high-schools/articles/see-high-school-graduation-rates-by-state>. Access date: 5/29/2020.

224 Expect More Arizona. (2020). *Arizona Education Progress Meter*. Retrieved from: <https://www.expectmorearizona.org/progress/?location=State::Arizona>. Access date: 5/29/2020.

225 Ibid.

226 Expect More Arizona. (2020). *Teacher pay*. Retrieved from: https://www.expectmorearizona.org/progress/teacher_pay/. Access date: 5/29/2020.

227 Slade, S. (2016). *What Do we Mean by a Quality Education?* Retrieved from: https://www.huffpost.com/entry/what-do-we-mean-by-a-qual_b_9284130. Access date: 5/29/2020.

228 Arizona Department of Education (n.d.) *AZ school report cards*. Retrieved from: <https://azreportcards.azed.gov/state-reports>. Access date: 5/29/2020.

229 Ibid.

230 Dale, M. & Kuhn, C. (27 Feb 2019). *Study: White Arizona School Districts Get More Funding Than Non- White Districts*. Retrieved from: <https://kjjz.org/content/782391/study-white-arizona-school-districts-get-more-funding-non-white-districts>. Access date: 5/29/2020.

- Latino students now comprise 45% of the student population while only 12% of Arizona teachers are Latino.²³¹
- While 5% of the state's students are African American, they accounted for 13% of all out-of-school suspensions. Native American students accounted for 9% in the 2015–2016 school year.²³²
- While the Native American student population is 5%, from 2008–2014, Native American students accounted for the highest rates of drop-outs at 7%, compared to Latino (4%), African American (4%), White (2%), and Asian students (1%).²³³
- Compared to their White and Asian counterparts (55% and 70%, respectively), in 2014, lower percentages of African American (37%), Native American (34%), and Latino students (34%) met the Arizona Board of Regents' eligibility requirements to attend one of Arizona's three public universities.
- Latino students represent almost half of the student population, yet three of the combined 30 members of Arizona's State Board of Education, Board of Regents, and State Board of Charter Schools are Latino.²³⁴
- Some rural counties have higher rates of third graders who read below grade level compared to other counties.²³⁵

Without increased access to quality education, the chances for students who experience the most educational disparities to obtain better wages, good working conditions, health insurance, and access to resources that promote better health outcomes and longer life expectancies are lower. Approaching these barriers with an equity lens, while utilizing community-driven solutions that allow those most impacted to define and lead the efforts with decision-making ability, may result in lasting change within Arizona's education system. Two possible community and policy responses to addressing this very complex and multifaceted issue are: (1) eliminate systems and policy barriers for Latino, African American, Native American, rural, and low-income student achievement, and (2) achieve equitable representation in education leadership at all levels.

Opportunities for Systemic Change in Arizona's Educational Systems

Education systems are vast and complex, and this report does not cover every possible area of improvement. The following examples highlight just a few of many considerations in creating an Arizona education system that enhances vibrant communities:

231 Welch, D. (29 Aug 2019). *DISPARITY: Hispanics Make up Almost Half of Arizona Students but Only 12% of Teachers*. Retrieved from: https://www.azfamily.com/news/arizona_schools/disparity-hispanics-make-up-almost-half-of-arizona-students-but/article_5ff2e394-cacf-11e9-8fe2-9fa4d9486723.html. Access date: 5/29/2020.

232 Altavena, L. (15 Apr 2019). *Black Students are Suspended at the Highest Rate from Arizona Schools, Data Shows*. Retrieved from: <https://www.azcentral.com/story/news/local/arizona-education/2019/04/15/nonwhite-students-arizona-suspended-higher-rates-data-shows/3205724002/>. Access date: 5/29/2020.

233 Arizona Department of Education. (28 Aug 2018). *Arizona 2018 Indian Education Annual Report*. Retrieved from: <https://www.azed.gov/oie/files/2019/11/8.28.19-AZ-2018-Indian-Education-Annual-Report.pdf>. Access date: 5/29/2020.

234 Welch, D. (29 Aug 2019). *DISPARITY: Hispanics make up almost half of Arizona students but only 12% of teachers*. Retrieved from: https://www.azfamily.com/news/arizona_schools/disparity-hispanics-make-up-almost-half-of-arizona-students-but-only-12-of-teachers/article_5ff2e394-cacf-11e9-8fe2-9fa4d9486723.html. Also see <https://azsbe.az.gov/>, <https://www.azregents.edu/>, and <https://asbcs.az.gov/>. Access date 8/21/2020.

235 Edwards, M. (2014). *Preparing Rural Students for Economic Success*. Retrieved from: <https://www.expectmorearizona.org/blog/2014/07/22/preparing-rural-students-economic-success/>. Access date: 5/29/2020.

Improving Data: It is important to have a clear understanding of the problem at hand as well as data from efforts that currently exist. Fragmented education data presents a barrier; there is no single education data clearinghouse in Arizona. Consistent standards for collection and reporting do not exist for data like 2-year and 4-year certificates and school discipline data, making developing an understanding and responsive solutions difficult. It may be beneficial for Arizona to create a hub that could house this valuable information so that it is more accessible; in doing so, solutions could be data-driven, which may lead to more equitable and unified efforts.

Addressing Inequity in School Policies: Policies that appear to promote equality in their formulation may result in inequity in practice. For example, Arizona has operated on a system of school choices since the 1980's, meaning that parents have the option to choose what school their child attends regardless of attendance boundaries that typically drive public school enrollment. While this provides a variety of options for some parents, not all students live in an area that affords them any selection other than the local public school.

Evaluating Arizona's Education Financing Model: As discussed in the 110th Arizona Town Hall background report, "Funding Pre-K-12 Education," financing the education system in Arizona is complex, with intricate formulas that work to take into account the diverse school system.²³⁶ While Arizona ranked 11th in the nation in 2017 for general fund²³⁷ dollars spent on K-12 education, but 49th in educational outcomes.²³⁸ In 2017, the state Legislature voted to establish the Results-Based Funding Fund, which puts emphasis on student AzMerit test scores.²³⁹

Creating Trauma-Informed School Districts: As will be covered in the Adverse Childhood Experiences (ACEs) chapter, ACEs are quite common and can drastically impact a child's development. ACEs are also inversely linked to education outcomes; that means that adults reporting higher ACE scores are more likely to report less educational success.²⁴⁰ Notably, education is considered among the most important mitigating factors for the negative effects of ACEs.²⁴¹ Trauma-Informed principles, according to the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA), include: safety, trust, peer support, collaboration, empowerment, and cultural sensitivity. Trauma-Informed schools create a safer, more successful learning environment that benefits all students, with benefits extending to staff as well as into the larger community.²⁴² Currently in Arizona, there are a few examples of schools and school systems that are implementing Trauma-Informed practice including Holiday Park Elementary School and the South Mountain W.O.R.K.S. Coalition Community Health and Resiliency Program.²⁴³

236 Arizona Town Hall. (2017). *Funding Pre-K-12 Education. 110th Arizona Town Hall Background Report*. Retrieved from: <https://aztownhall.org/resources/Documents/110%20Funding%20PreK-12%20Education%20Background%20Report%20web.pdf>. Access date: 5/29/2020.

237 The state's general fund is the primary state fund from which ongoing expenses of state government (like education) are paid.

238 National Association of State Budget Officers. (2016). *State Expenditure Report*.

239 Arizona Town Hall. (2017). *Funding Pre-K-12 Education. 110th Arizona Town Hall background report*. Retrieved from: <https://aztownhall.org/resources/Documents/110%20Funding%20PreK-12%20Education%20Background%20Report%20web.pdf>. Access date: 5/29/2020.

240 Childhood Domestic Violence Association. (2018). *The Circular Impact of ACEs, Education, and Long-Term Health*. Retrieved from: <https://cdv.org/2018/11/the-circular-impact-of-aces-education-and-long-term-health/>. Access date: 5/29/2020.

241 Ibid.

242 Eilers, E. (n.d.) *How Trauma-Informed Schools Help Every Student Succeed*. Retrieved from: <https://www.crisisprevention.com/Blog/Trauma-Informed-Schools>. Access date: 5/29/2020.

243 Please see ACEs chapter for more information on holiday park and the South Mountain W.O.R.K.S. Coalition Community Health and Resiliency Program.

A Case Study: Isaac School District

In 2016, the Isaac School District (ISD) partnered with the community to address the social determinants of health in ways that would improve learning outcomes and community vibrancy.

The challenge was great. ISD serves approximately 6,500 students across 11 schools in Maryvale and Central City South. It is a 100% Title I school district, providing free and reduced lunch to all students. The median household income is \$30,760, and the population is approximately 98% Hispanic.²⁴⁴ ISD is a community that experiences above-average poverty rates, and high unmet health and social service needs. Residents also face language and cultural barriers, as well as fear for their families when attempting to access resources and navigate community systems.²⁴⁵ Due to the enormous inequities inherent in the community it creates the conditions where most would identify the ISD neighborhood as "at-risk". Although these statistics illustrate a very deficit-based narrative, the ISD community brings a wealth of assets, comprised of the myriad of gifts and talents each resident brings.

Recognizing the various strengths of the community, ISD partnered with parents and staff using a "community driven" approach to strengthen community and educational outcomes. A strengths and needs assessment was developed at all 11 school sites in collaboration with principals, school site leaders, counselors, and parents. 30 parent leaders and 40 community stakeholders were engaged to develop the Family Resource Center Steering Committee. This cross-sector, inclusive collaboration transformed an old, vacant, dilapidated house (donated to ISD many years ago) from an uninhabitable storage site to a vibrant community point of pride and opportunity. The community had little cash capital on hand in the beginning so, for months, the majority of the work was offered as resident and business "sweat equity" in masonry, painting, roofing, plumbing, deep cleaning, carpentry, landscaping, and support activities, such as cooking and childcare. The momentum became contagious; it inspired the Arizona Chapter of the Interior Design Association (IDA) to select the center for a badly-needed, \$500,000 "extreme makeover" of architectural design, construction, interior design, and furnishings.

The Heart of Isaac Community Center opened in November 2017. Named in recognition of the people who made it possible at the heart of the Isaac community, the house today provides a place where community members can access health and social services through organizational partners that regularly offer clinics, workshops, information, and other resources. Services include dental care, primary care, legal services, and health insurance support, as well as educational opportunities such as English as a Second Language (ESL) classes, General Educational Development (GED) workshops, and computer classes.

Heart of Isaac is the first community-driven Family Resource Center implemented within an educational setting in Arizona. In partnership with First Things First, it is also one of the highest performing/serving Family Resource Centers in the South Phoenix Region. Most importantly, Heart of Isaac is sustainable because it is led and owned by the community and supported by unique collaborations with cross-sector organizations, including the Isaac School District itself.

244 Zipatlas. (2020). *Median Household Income in Phoenix, AZ by Zip Code*. Retrieved from: <http://zipatlas.com/us/az/phenix/zip-code-comparison/median-household-income.htm>. Access date: 8/21/2020 & Isaac School District.

245 First Things First. (2014). *2014 Needs and Assets Report Central Phoenix Regional Partnership Council*. Retrieved from: <https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202014%20-%20Central%20PHX.pdf>. Access date: 5/29/2020.

The Heart of Isaac serves as a community-inspired, community-driven, “community hub” where the Isaac community can offer support to help overcome challenges, create healthy connections, and participate in opportunities that promote leadership and giving back. It is a model for the power and success that comes from working through an equity lens and centering the strengths and capabilities of those most impacted in defining and driving solutions. When this approach is taken, solutions are more often positive, effective, and sustainable.²⁴⁶

[For additional reading on the Education System in Arizona, particularly related to Funding, please refer to the 110th Arizona Town Hall Report.]

²⁴⁶ Isaac School District #5. (2020). *Heart of Isaac Community Center*. Retrieved from: <https://www.isaacschools.org/domain/272>. Access date: 5/29/2020.

Adverse Childhood Experiences in Arizona Communities

Kelly Eckhoff, Kominote Community Consulting

Shomari Jackson and Sanghoon Yoo, South Mountain Prevention W.O.R.K.S.

This topic intersects and explores these elements of a vibrant community:

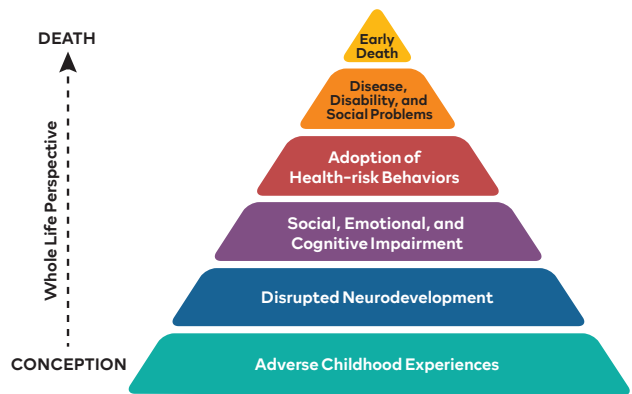


Introduction

Adverse childhood experiences (ACEs) are defined as stressful and traumatic events that occur before the age of 18.²⁴⁷ ACEs often result in toxic stress, which can disrupt brain development and impair a child's ability to cope, function, focus, form healthy relationships, make positive choices, and lead a stable life.²⁴⁸ Arizona's percentage of children birth to 17 years old who have experienced two or more ACEs is the highest in the nation.²⁴⁹ In 2019, 27.3% of children in the state had experienced two or more ACEs; this is significantly higher than the national average of 20.5%.²⁵⁰

This is problematic as ACEs can have serious and long-lasting negative implications on physical and mental health. Ample research documents health disparities among adults who experienced ACEs. These include higher rates of heart disease, cancer, substance misuse, depression, and suicide, and health outcomes worsen as the number of ACEs experienced increases.²⁵¹ ACEs also

HOW ADVERSE CHILDHOOD EXPERIENCES CAN INFLUENCE HEALTH THROUGHOUT LIFE



247 Arizona Town Hall. (2019). *Strong Families Thriving Children*. Retrieved from <https://aztownhall.org/resources/Documents/112%20Strong%20Families%20Thriving%20Children/112%20Stong%20Families%20Thriving%20Children%20Background%20Report%20web.pdf>. Access date: 5/29/2020.

248 Centers for Disease Control and Prevention. *Violence Prevention*. (April 2020). Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/aces/fastfact.html>. Access date: 5/29/2020.

249 Arizona Town Hall. (2019). *Strong Families Thriving Children*. Retrieved from <https://aztownhall.org/resources/Documents/112%20Strong%20Families%20Thriving%20Children/112%20Stong%20Families%20Thriving%20Children%20Background%20Report%20web.pdf>. Access date: 5/29/2020.

250 United Health Foundations' America's Health Ratings. (2020). *Health of Women and Children Report 2019*. Retrieved from <https://www.americashealthrankings.org/learn/reports/2019-health-of-women-and-children-report>. Access date: 5/29/2020.

251 National Advisory Committee on Rural Health and Human Services. (Aug 2018). *Exploring the Rural Context for Adverse Childhood Experiences (ACEs)*. Retrieved from <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/rural/publications/2018-Exploring-the-Rural-Context-for-ACEs.pdf>. Access date: 5/29/2020.

result in elevated involvement in criminal and juvenile justice systems, social services, public housing, health care, and behavioral health systems. Therefore, the cost of failing to address the impact of ACEs is profound. According to a study published in 2019, the total annual costs attributable to ACEs in North America were estimated to be \$748 billion.²⁵²

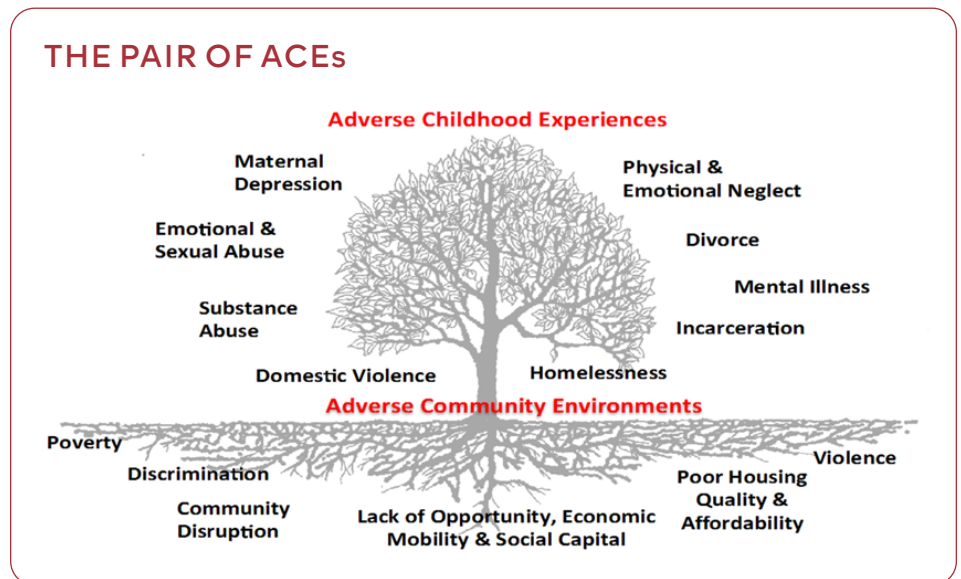
Preventing ACEs

The ideal solution is to prevent children’s exposure to adverse conditions and experiences by creating systemic, environmental changes that effectively address the root causes of ACEs. *The Pair of ACEs* graphic to the right shows the landscape of ACEs causes and effects. The roots represent systemic, adverse community environments, and the branches represent the resulting ACEs.²⁵³ By addressing pervasive, adverse community environments, childhood trauma can be reduced.

Even without sweeping, systemic changes, there are promising strategies for preventing youth from experiencing ACEs, many of which are active around the state and yielding positive results. According to Arizona Adverse Childhood Experiences Consortium,²⁵⁴ these strategies include the following:

- home visiting programs for pregnant women and families with newborns
- parent education and social support programs
- domestic violence prevention
- teen pregnancy prevention
- treatment for mental illness and substance misuse
- high-quality, affordable childcare
- sufficient income support for lower-income families

These strategies yield dividends in improving the health and well-being of individuals and communities.²⁵⁵



252 Bellis, MA., Hughes, K., Ford, K., Ramos Rodriguez, G., Sethi, D. & Passmore, J. (Oct 2019). *Life Course Health Consequences and Associated Annual Costs of Adverse Childhood Experiences Across Europe and North America: A Systematic Review and Meta-Analysis*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/31492648>. Access date: 5/29/2020.

253 Building Community Resilience. (n.d.). *Pair of ACEs Tree*. Retrieved from https://publichealth.gwu.edu/sites/default/files/downloads/Redstone-Center/Resource%20Description_Pair%20of%20ACEs%20Tree.pdf. Access date: 5/29/2020.

254 United Health Foundations' America's Health Ratings. (2020). *Health of Women and Children Report 2019*. Retrieved from <https://www.americashealthrankings.org/learn/reports/2019-health-of-women-and-children-report>.

255 Arizona Town Hall. (2019). *Strong Families Thriving Children*. Retrieved from <https://aztownhall.org/resources/Documents/112%20Strong%20Families%20Thriving%20Children/112%20Strong%20Families%20Thriving%20Children%20Background%20Report%20web.pdf> Access date: 5/29/2020.

Overcoming ACEs

Although the negative impacts of ACEs can last a lifetime, they do not have to. Research has found preventative factors – such as safe, supportive relationships with caring adults – can help prevent or reverse the damaging effects of ACEs by building resilience. Healthy adult relationships are one of the most promising, well-documented ways to mitigate the effects of ACEs. These relationships can be with a family member, caregiver, teacher, or other safe adult. These crucial, supportive relationships are one reason mentoring programs are an effective intervention for youth who have experienced early adversity. Research repeatedly demonstrates that just one safe and supportive relationship with a caring adult can buffer children from the long-term, harmful effects of ACEs.²⁵⁶

The Need for Implementing Trauma-Informed Approaches

The collective understanding of experts, researchers, and direct service providers in the fields of child welfare, youth development, and trauma is that expanding universal best practices of Trauma-Informed care is a crucial step in mitigating the effects of ACEs. As the Arizona Town Hall's 2019 *Strong Families Thriving Children* background report highlighted, Trauma-Informed care "integrates core principles of neurodevelopment, trauma and attachment with mindful healing to support a comprehensive approach".²⁵⁷ The Trauma-Informed approach seeks to prevent re-traumatization and promote recovery and resilience by being sensitive to the impact of trauma, understanding and employing tools to regulate emotions during stressful times, and identifying and supporting systemic changes needed to reduce re-traumatization.²⁵⁸ By investing in training for existing school staff, healthcare workers, mentors, youth serving organizations, and other adults in children's lives, the negative impacts of ACEs can be effectively mitigated.

This is particularly true in the academic setting because "schools are the single point of connection between home life and community dynamics, and the responsibility of educators to prepare young people to function successfully in the world as adults can only be bolstered with a trauma-sensitive approach."²⁵⁹ In a Trauma-Informed school, staff are trained to recognize and effectively respond to students who have been impacted by ACEs, thus preventing re-traumatization and promoting healing and resiliency. Implementation of Trauma-Informed practices does not require a new or separate program, but rather a shift in school culture, creating a place where students feel safe, connected, and supported. Often, this means incorporating mindfulness, yoga, gardening, and other self-regulation activities into the existing curriculum.

Numerous schools across the country have transitioned to a Trauma-Informed approach and observed positive results. In Arizona, Holiday Park Elementary School in west Phoenix set out to become more trauma-sensitive

256 National Scientific Council on the Developing Child. (2015). *Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper No. 13*. Retrieved from www.developingchild.harvard.edu. Access date: 6/1/2020.

257 Arizona Town Hall. (2019). *Strong Families Thriving Children*. Retrieved from <https://aztownhall.org/resources/Documents/112%20Strong%20Families%20Thriving%20Children/112%20Strong%20Families%20Thriving%20Children%20Background%20Report%20web.pdf>. Access date: 5/29/2020.

258 Ibid.

259 Crisis Prevention Institute. (n.d.). *How Trauma-Informed Schools Help Every Student Succeed*. Retrieved from <https://www.crisisprevention.com/Blog/Trauma-Informed-Schools>. Access date: 5/29/2020.

and began implementing Trauma-Informed methods in 2016, with support from Phoenix Children's Hospital. The results have been remarkable. The school has achieved seven growth points on AzMerit, going from a C school to a B (the only school in the Cartwright district to improve a letter grade). Additionally, the number of behavioral issues has decreased, staff turnover is almost non-existent, and Holiday Park is now the second highest rated school in its district. Because of positive results like this, Arizona schools are increasingly adopting a Trauma-Informed approach. In the greater Phoenix area, many schools partner with the Kohl's Mindful Me program at Phoenix Children's Hospital to implement Trauma-Informed strategies for combating ACEs. This unique program focuses on building childhood and family resilience by training and educating communities and school staff on ACEs and providing stress management and self-regulation skills.²⁶⁰

In addition to providing Trauma-Informed professional development opportunities for school staff working directly with students, an integral part of developing Trauma-Informed schools is ensuring school and district policies are created using a Trauma-Informed lens rather than a punitive one. School policies, procedures, and protocols that have been found to be helpful in mitigating the impacts of ACEs include strategies like: balancing accountability with an understanding of undesirable behaviors, emphasizing positive behavioral supports and interventions, prohibiting abusive discipline, creating clear and consistent rules and consequences, modeling respectful, nonviolent relationships, and creating open family communication and relationship-building. By developing Trauma-Informed school systems, Arizona can provide the educational and social-emotional supports students need to reach their full potential.

A Case Study: South Mountain W.O.R.K.S.

The South Mountain W.O.R.K.S. Coalition's Community Health and Resiliency Program (CHRP) is developing Arizona's first Trauma-Informed school system, spanning from elementary school to college. The CHRP will provide ongoing, trauma-specific training to teachers, administrators, staff, students, families, and community members to deepen community-wide recognition and response to the behavioral, emotional, relational, and academic impact of traumatic stress. Each school will be paired with a coach and/or trainer who will support the school through steps of:

- building awareness and knowledge of ACEs and personal trauma
- implementing resilient self-care practices to teachers and students with accountable role-modeling structures
- identifying and improving school discipline policies and practices to promote safety, skills-building, health and wellness, and reintegration
- training and developing community members to advocate for local and state Trauma-Informed policies

Each school will develop cross-system, Trauma-Informed approaches for classrooms, health services, administration, discipline, attendance, guidance, and extra-curricular programming that is inclusive of family and community partners.

²⁶⁰ Phoenix Children's Hospital. (n.d.). *Kohl's Mindful Me Program*. Retrieved from <http://www.phoenixchildrens.org/center-family-health-safety/kohls-mindful-me-program>. Access date: 5/29/2020.

The CHRP will also work to develop policy and practice changes with service providers who may be inadvertently creating and/or exposed to secondary trauma. The CHRP will train and engage different sectors of the community including, but not limited to, first responders, law enforcement, businesses, media, youth serving organizations, civic and volunteer groups, health care providers, substance use organizations, faith-based organizations, and agencies at local, state, and tribal nation levels.²⁶¹

Going Forward

With awareness and data on childhood trauma growing, Arizona has a unique opportunity to address ACEs and improve residents' health and well-being. According to the Arizona Adverse Childhood Experiences Consortium, "Through more effective prevention of ACEs, and better intervention with those who have already had adverse experiences, Arizona will enhance the lives of citizens so they can be healthier and more productive while also reducing the burden ACEs have on our economy, health, and public-benefit systems."²⁶²

About the Authors

Kelly Eckhoff, Co-Founder and Principal Consultant, Kominote Community Consulting

Kelly is a committed champion of non-profit organizations working tirelessly to improve communities around the globe. She supports fund development for a variety of health and human services organizations focused on improving housing stability, health outcomes, child and family outcomes, youth development, and refugee resettlement. Kelly holds a Master's in Social Work from Arizona State University and loves using her skills and experience to enhance the quality of life for all.

Shomari Jackson, Project Coordinator, Southwest Behavioral & Health Services

Shomari B. Jackson is an experienced Project Coordinator at Southwest Behavioral & Health Services, where he has developed and facilitates the South Mountain W.O.R.K.S. Coalition, a nationally known youth substance abuse prevention coalition. He graduated from Arizona State University, with a Bachelors of Science in Psychology in 2015 and a Masters in Public Administration in 2017. Shomari is an experienced trainer in topics of Trauma, Harm Reduction, Substance Use Prevention, and Leadership. He is currently leading the Community Health & Resiliency Program, a Trauma-Informed community building project that develops Trauma-Informed Schools in South Mountain and throughout Phoenix.

261 For more information on the South Mountain W.O.R.K.S. Coalition, visit: <http://southmountainworks.org/south-mountain-works/>. Access date: 5/29/2020.

262 Arizona Adverse Childhood Experiences Consortium. (n.d.). *Overcoming Adverse Childhood Experiences: Creating Hope for a Healthier Arizona*. Retrieved from: <https://azaces.org/wp-content/uploads/2019/01/ACEs.pdf>. Access date: 5/29/2020.

Rev. Sanghoon Yoo, Founder, The Faithful City

Rev. Sanghoon Yoo founded The Faithful City (TFC) ministry and Arizona Trauma Informed Faith Community (AZTIFC), serving Arizona State University (ASU) and the Phoenix metropolitan area over two decades. He holds Master's degrees in Social Work and Divinity, offering training and consultation on ACEs, Trauma-Informed care and community (TIC) building. He organizes a statewide trauma-informed care conference and leads TIC movement, collaborating with various sectors of the community. As a board member of Arizona ACEs Consortium, he contributed to the authorship of training modules for opioid and substance use prevention, and the revision of ACEs training of trainers modules. As vice-chair of South Mountain W.O.R.K.S., he leads the CHRP project with Shomari Jackson, training schools and organizations to develop trauma-informed community and culture.

Rural Arizona: Challenges, Opportunities, and Options

Jane Pearson, Arizona Partnership for Healthy Communities

This topic intersects and explores these elements of a vibrant community:



SOCIAL JUSTICE



HEALTH EQUITY



ECONOMIC OPPORTUNITY



ACCESS TO CARE



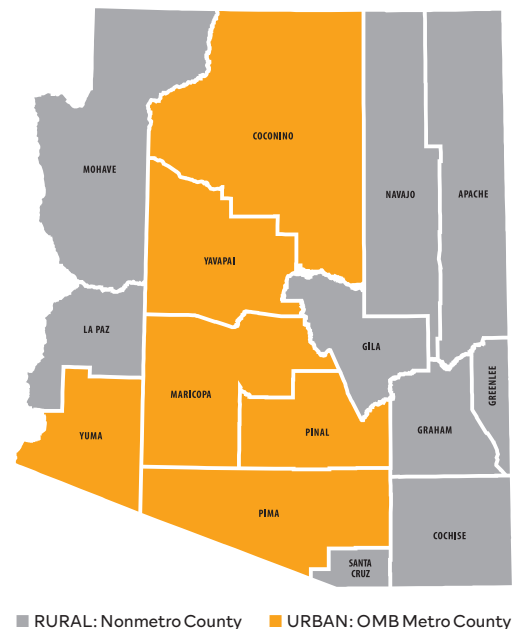
AFFORDABLE QUALITY HOUSING

Introduction

Rural areas are defined by the U.S. Census Bureau as places with fewer than 50,000 residents. In Arizona, there are nine rural counties: La Paz, Mohave, Navajo, Apache, Gila, Graham, Greenlee, Cochise, and Santa Cruz.²⁶³ The following characteristics highlight key differences between rural and urban Arizona:

- There are 74 incorporated towns in Arizona with fewer than 50,000 residents.
- Only six counties have a city with a population greater than 50,000.
- Of 7,171,646 Arizonans, 351,316 (5%) lived in rural or frontier communities.²⁶⁴
- Per capita income is significantly different: \$33,388 in rural Arizona vs. \$42,280 in urban Arizona.²⁶⁵
- The poverty rate in rural Arizona is 26.9%, compared with 13.4% in urban areas of the state.²⁶⁶

ARIZONA'S COUNTIES



While there are statistics and data reflective of rural Arizona in this chapter, it is important to recognize that there is a constant struggle to find and collect comprehensive, reliable, and updated data within rural areas. This is currently a major barrier in improving rural health and wellness.

263 USDA-ERS. (2018). *Arizona-Rural Definitions: State-Level Maps*. Retrieved from: https://www.ers.usda.gov/webdocs/DataFiles/53180/25557_AZ.pdf?v=39329. Access date: 5/29/2020.

264 USDA-ERS. (2018). *Rural*. Retrieved from: <https://www.ers.usda.gov/>. Access date: 5/29/2020.

265 Ibid.

266 USDA-ERS. (2018). *State Fact Sheets: Arizona*. Retrieved from: <https://data.ers.usda.gov/reports.aspx?StateFIPS=04&StateName=Arizona&ID=17854>. Access date: 5/30/2020.

- 18.6% of people living in rural Arizona has not completed high school, vs. 13.2% living in urban Arizona.²⁶⁷
- The unemployment rate in rural Arizona is 7.5%, vs. 4.7% in urban Arizona.²⁶⁸
- In 2018, seven of the nine rural Arizona counties had overall mortality rates higher than the state.²⁶⁹
- The mortality rate for unintentional Injury exceeds that of the state rate in six of nine rural Arizona counties.²⁷⁰
- In contrast to other parts of the country, the opioid induced death rate is lower in all rural counties compared to the state rate.²⁷¹

Despite these statistics, rural places are no different than urban areas when it comes to community well-being and vibrancy. Whether towns are walkable, the water is clean, residents are connected to one another, and the local economy works for everyone – all of this has an impact on individuals' opportunities to be healthy and, in turn, their communities vibrant. So, what more do we know about individuals who live in rural communities?

- **There are higher rates of individuals lacking health insurance** residing in rural or non-metro counties compared to their counterparts in urban or metro counties.²⁷² For example, the uninsured rate in Maricopa County is 11.01% while Apache County has an uninsured rate of 23.22%, almost a full quarter of the population.²⁷³
- **Many rural residents face barriers related to access to housing, transportation, food, and water that is safe, healthy, and affordable.** These barriers are particularly problematic for those already struggling financially.
- **Reliable transportation to care can also be a barrier** for rural residents due to long distances, poor road conditions, and limited public transit availability.
- **Rural communities also face many environmental challenges.** Hazardous materials often end up in remote areas where the land is cheap and fewer people overall are put at risk. Rural industries like mining and farming bring with them their own dangers and environmental impacts. Groundwater pumping is threatening natural water supply.

267 2013–2017 ACS data reported by ERS.

268 USDA-ERS. (2018). *Rural*. Retrieved from: <https://www.ers.usda.gov/>. Access date: 5/29/2020.

269 Arizona Department of Health Services. (2018). *Table 5E-4 Mortality Rates by County of Residence and Year, Arizona, 2008-2018*. Retrieved from: <https://pub.azdhs.gov/health-stats/report/ahs/ahs2018/pdf/5e4.pdf>. Access date: 8/10/2020.

270 Arizona Department of Health Services. (2018). *Table 5E-13 Rates for Selected Leading Causes of Death Statewide and by County of Residence, Arizona, 2018*. Retrieved from: <https://pub.azdhs.gov/health-stats/report/ahs/ahs2018/pdf/5e13.pdf>. Access date: 8/10/2020.

271 Ibid.

272 Center for Disease Control and Prevention. (2019). Table 47. *No Health Insurance Coverage Among Persons Under age 65, by Selected Characteristics: United States, Selected years 1984–2017*. Retrieved from: <https://www.cdc.gov/nchs/data/hus/2018/047.pdf>. Access date: 5/29/2020.

273 U.S. Census Bureau. (2018). *American Community Survey 5-Year Estimates*. Retrieved from: <https://www.census.gov/data.html>. Access date: 5/29/2020.

While the data can present a discouraging picture of life in rural communities, rural residents themselves embrace their communities and have their own sense of the issues they face. In 2018 and again in 2019, the Robert Wood Johnson Foundation funded a poll surveying 1,300 and 1,405 adults living in rural areas to better understand the views and experiences of rural Americans on economic and health issues in their local communities.

In 2018, respondents reported:²⁷⁴

- they were **happy where they were living**, liked their jobs, liked their neighbors, and were optimistic about the future.
- over the past five years, **the economy in the region where they live and work had gotten better (about 33%)**.
- **they were active in solving problems in their local community (52%)**, with younger adults reporting higher levels of participation.
- **concern about the opioid epidemic**, the number of **young people who were leaving** their community, and the **unstable job market**.

In 2019, they found that respondents:²⁷⁵

- felt **safe** in their community.
- said **people like them can make an impact** in their community, with 27% believing they can make a *big* impact and 61% belonging to a health, social, or community service group.
- reported that **homelessness is a problem**, with 22% worrying that their housing conditions were affecting their family's health or safety.
- reported that there has been a time in the past few years when they **needed health care but did not get it (26%)**.
- reported that a small but considerable number of residents **struggled with financial insecurity, internet access, housing problems, and accessing affordable, quality health care**.

The Rural Arizona Dichotomy

Rural Arizona experiences chronic disinvestment, weak infrastructure, and limited financial capital resulting in a lack of good jobs, low wages, scarce or distant services, higher prices for basic goods, poor quality housing, unaffordable health insurance, low access to quality health care, and diminishing opportunity. However, rural Arizona also has valuable assets, from water and natural resources to natural beauty, cultural capital, deep knowledge of place – and committed people with talent, creativity, and resourcefulness. The combination of fewer people, larger geographies, and serious resource constraints motivates collaboration across boundaries.

274 Robert Wood Johnson Foundation. (1 Oct 2018). *Life in Rural America*. Retrieved from: <https://www.rwjf.org/en/library/research/2018/10/life-in-rural-america.html>. Access date: 6/1/2020.

275 Robert Wood Johnson Foundation. (1 May 2019). *Life in Rural America Part II*. Retrieved from: <https://www.rwjf.org/en/library/research/2019/05/life-in-rural-america--part-ii.html>. Access date: 6/1/2020.

Rural Business and Infrastructure

Rural communities in Arizona share many of the same characteristics as those in other parts of the country. There are some specific issues to consider.

Tourism and its consequences

Arizona is a state of amazing natural beauty, varied seasonal temperatures, and rich cultural history, all of which makes it very attractive to domestic and international tourists. Many of these natural or cultural sites are in rural communities. Tourism brings much needed revenue to these areas but presents challenges as well – and often drives community changes that are detrimental to residents. Sedona, Bisbee, Cottonwood, and others struggle for a balance.

- How should a small community meet tourism's high infrastructure demands?
- How should a community build and maintain its workforce – including affordable housing, education, employment during less busy times, etc?

Single legacy industry

Arizona's four "C"s – copper, cattle, cotton, and citrus – reflect industries (of mining and farming for example) – that are still central in many rural communities in Arizona. Industry changes can rock a community to its core.

- What happens to individuals and families employed in an industry that changes?
- What happens to businesses dependent on the revenues from those employees?
- What happens to the tax base?

The last several years there have been major fluctuations in mining, closure of the Navajo Generating Station, and closure of the Happy Jack sawmill.

Lack of reliable Broadband

One in five rural adults say accessing high-speed internet is a problem for their family, meaning rural communities are unable to participate in the digital economy.²⁷⁶ Many rural Arizona places still have unreliable or non-existent internet access. Residents cannot access basic knowledge, online education, commerce, or telemedicine. Businesses miss out on retail e-commerce, remote work, distance consulting, development, and much more.

276 Robert Wood Johnson Foundation. (1 May 2019). *Life in Rural America Part II*. Retrieved from: <https://www.rwjf.org/en/library/research/2019/05/life-in-rural-america--part-ii.html>. Access date: 6/1/2020.

What's Happening in Rural Arizona Today

Residents in rural communities are committed to making their communities better. They not only understand the interrelationship of various sectors (affordable housing, transportation, built environment) they also know the people who work in those sectors. What is lacking is resources – both time and capital. There are several new approaches that may support collaborative efforts.

- Local First Arizona Foundation (LFAF) is bringing multiple initiatives to rural areas:
 - The **Arizona Rural Development Council (AzRDC)** amplifies rural issues and develops solutions. AzRDC focuses on resources and equitable opportunities that support education, health care, economic, and community development.
 - Rural innovation and job creation are being supported with innovative programs like the **Graham County Micro-Loan Fund** to address the commercial loan gap.
 - In partnership with Resolution Copper, LFAF is developing new ways to build a **pipeline of small business providers**.
 - **Youth Retention and Development** work combines science technology, engineering, arts, and mathematics (STEAM) education and entrepreneurship through active and compelling community engagement.
- County health departments produce a **Community Health Improvement Plan (CHIP)**, typically updated every three to five years. Plans include key vibrancy issues such as housing, the built environment, and transportation. For example, Cochise County's latest plan prioritizes "Jobs and the Economy." CHIP working groups are resources.
- Similarly, the Arizona Department of Health Services (ADHS) **State Health Improvement Plan (SHIP)** for 2021-2025 (currently in development) identified Rural Underserved Health as one of its four top priorities.
- Incorporated municipalities are required to adopt a long-range **General Plan** (ARS, Title 9). All plans must include land use and circulation. Populations of 2,500 to 10,000 must also include open space, environmental planning, water resources, cost of development, and growth. Plans often include recreation, preservation, safety, and energy initiatives.
- Organizations like the **Arizona Alliance for Livable Communities (AALC)** have been helping places leverage General Plans for vibrancy. For example, Pinetop-Lakeside innovated a new system of active transportation (school and work) and recreation.
- **Rural Development Hubs** focus on community building that embraces economic development, local institution building, and enhancing cultural, social, and natural wealth. A central function of Hubs is to create collaborative structures, inventive products, services, programs, and tools.²⁷⁷

²⁷⁷ The Aspen Institute. (2020). *Rural Development Hubs: Action Infrastructure for Rural Prosperity*. Retrieved from: <https://www.aspeninstitute.org/events/rural-development-hubs-action-innovators-for-rural-prosperity/>. Access date: 5/29/2020.

- Arizona has begun supporting **high speed internet**.
- Arizona's fiscal year 2020 budget allocated \$3 million match to leverage federal funding that accelerates broadband deployment in underserved areas.
- In 2019 the state dedicated \$11 million to leverage \$110 million in federal funds to connect rural schools and libraries.²⁷⁸

What systems barriers need to be addressed?

More community-aligned funding is needed. The Rural Development section of the U.S. Department of Agriculture (USDA) is the agency responsible for most Federal policies and funding to combat rural poverty and improve rural vibrancy. Federal policy proposals recommend more strategic use of direct services and investments in rural infrastructure, especially broadband. These proposals do little, however, to address structures, systems, and policies that routinely, if inadvertently, disadvantage rural people and places. There is a consistent lack of investment in rural communities by government, private financial institutions, and foundations. Between 2005-2010, only 6-7% of foundation grant dollars went to rural towns.²⁷⁹

- Both philanthropic and government funding may be overly prescriptive programmatically and structurally. Rarely is funding based on a community-driven solution. Requirements often make funding difficult to apply for.
- Private funding is very limited. Rural banks typically lack business loan officers and have a very small CRA (Community Reinvestment Act) responsibility. Rural based CDFIs (Community Development Financial Institutions) are few and limited in scope.
- Technical assistance for rural communities tends to come from urban-experienced consultants. Communities can view this as "outsiders" providing episodic help that lacks understanding of community dynamics, needs, or assets.
- Other federal and state agencies lack the capacity to make investments in smaller communities or projects. State budgets have been cut over recent years leaving limited time and resources to support rural communities.

AN EXAMPLE

Coffee Pot Farms, located on the Navajo Nation in Dilkon, has a mission to increase access to healthy foods for the Navajo people. Coffee Pot's successes include: establishment of the main farm and Teesto Chapter community garden, creation of a "Green Team" co-op of Navajo Nation farmers, distribution at five locations across the Nation, and acceptance of SNAP and Double-Up Food Bucks at all points of sale. But growth is hampered significantly by two issues: water and internet. Lack of consistent internet makes it impossible to process non-cash or SNAP purchases. The farm currently must truck water to its farm because of a broken water pipeline and the lack of a well. Each unique problem threatens Coffee Pot's success and is a window into the basic blockages to rural innovation and success.

278 Arizona Department of Administration. (Feb 2018). *Arizona Statewide Broadband Strategic Plan*. Retrieved from: https://azlibrary.gov/sites/default/files/erate_2018_az_broadbandstrategicplan_final.PDF. Access date: 5/29/2020.

279 Pender, J. L. (Jun 2015). *Foundation Grants to Rural Areas From 2005-2010: Trends and Patterns*. Retrieved from: https://www.ers.usda.gov/webdocs/publications/43991/53165_eib141_summary.pdf?v=42181. Access date: 5/29/2020.

What are possible community and policy responses?

Rural Arizona can benefit from: (1) systemic policy change at federal and state levels, including re-alignment of USDA Rural Development with modern rural realities, (2) a fresh approach to economic and community development, and (3) more people and places that understand and practice it. Some options:

- Federal agencies could provide pre-development grants or infrastructure loans.
- The Arizona Legislature could provide new funding for state technical assistance.
- Federal and state agencies could examine their contract and grant-making activities to identify ways to (1) be more community driven, (2) be less bureaucratic, and (3) prioritize rural.
- State agencies could individually or jointly fund rural cross-sector collaborative efforts.
- Private banks and CDFIs could consider funding regional hubs and rural lending.
- Municipalities could use general plans to address broad cross-cutting issues.
- Foundations could support collaborative practices through technical assistance and grants.
- Communities could formalize already-strong relationships as cross-sector collaborations that guide funding opportunities using community-driven insights and ideas.

What can we learn from new research and best practices?

Step Into Cuba (New Mexico) is a cross-sector collaboration promoting physical activity through development of sidewalks, paths, trails, social support, and opportunities for lifestyle change. The Step Into Cuba Alliance (Village of Cuba, Sandoval County, New Mexico Department of Transportation (DOT), Santa Fe National Forest, Bureau of Land Management, and Continental Divide Trail Coalition) is coordinated by the Nacimiento Community Foundation.²⁸⁰

The Cochise County Community Health Improvement Plan is an example of how a health planning document can stimulate cross-sector partnerships to address core issues in the community. Led by the Cochise Health and Social Services and partially funded by the Legacy foundation, planning in eight towns produced community-driven recommendations for affordable housing, healthy foods, economic development, and mental health/substance abuse.

White Mountain TRACKS Trail System is an example of how rural communities can collaborate to improve their economic health through volunteer work and construction of a 200+ mile major trail system with the goal of preserving the White Mountain non-motorized trails. While this initiative started with no funding, the supporting organizations have raised up to \$100,000, and has seen continued success since 1987.²⁸¹

280 For more information: <https://www.stepintocuba.org/>. Access date: 5/29/2020.

281 For more information: <https://www.trackswitemountains.org/about-contact/our-story/>. Access date: 5/29/2020.

"In a rural place, there aren't enough resources to go it alone...The model for collaboration that is essential to rural America is the church potluck supper. Everyone brings what they can to the table, and you end up with more than you need to get your job done."

– John Molinaro, Appalachian Partnership, Inc.

About the Author

Jane Pearson has had a distinguished career in the public health and non-profit sector. Over a 20-year period, she held many positions within Arizona Department of Health Services including Assistant Director, Community and Family Health. In 1996, she joined St. Luke's Health Initiatives (now Vitalyst Health Foundation) as Director of Programs and retired in 2012. She has served on numerous state and national boards including the American Public Health Association, Arizona Public Health Association, the Governor's Commission on Women's Health, and the National Advisory Committee for the Robert Wood Johnson Foundation Maximizing Enrollment Program. She is a co-founder of Trinity Opportunity Alliance.

Community Safety, Well-Being, and Access to Care

Matt Eckhoff, Kominote Community Consulting

Jesus Rivera, Surprise Fire Medical Department

This topic intersects and explores these elements of a vibrant community:



Introduction

Professionals from fire, emergency medical services, police, and behavioral health crisis response teams and Arizona's 911 dispatchers all play unique, front-line roles at the intersection of public safety, community well-being, and access to care. As such, it is important to understand first responder systems, evolving capacities, and recent transformational work related to building and supporting vibrant communities.

"First responders" include emergency communications, law enforcement, fire and emergency medical services, and behavioral health crisis response professionals tasked with coordinating and responding to many public safety and community needs throughout Arizona, typically initiated by a 911 call or a crisis response call line. In Arizona in 2019, more than 4.3 million 911 systems²⁸² calls for assistance were placed, and in 2018, approximately 47,300 crisis calls were placed in Arizona.²⁸³

Many 911 calls are point-in-time emergencies (e.g. house fire, isolated fall, motor vehicle collision, mental health crisis, robbery, or assault), yet there are a substantial number of calls best served through alternative system resources or interventions (e.g. housing insecurity, chronic disease management, or social isolation).²⁸⁴ Nationally, Medicare data shows that 13-16% of 911 calls resulting in ambulance transport to an emergency room would have been best served via primary care resources.²⁸⁵ In Arizona, about 60% of 911 calls for medical concerns result in an ambulance transport to an emergency department,²⁸⁶ begging the question of how best to deploy resources to serve the needs of many callers.

282 911.gov. (2019). *National 911 Progress Report*. Retrieved from: <https://www.911.gov/pdf/National-911-Program-Profile-Database-Progress-Report-2019.pdf>. Access date: 5/29/2020.

283 National Suicide Prevention Lifeline. (2019). *Arizona Callers in 2018*. Retrieved from: <https://suicidepreventionlifeline.org/wp-content/uploads/2019/10/Arizona-Lifeline-2018-Report.pdf>. Access date: 5/29/2020.

284 Cannuscio CC, Davis AL, Kermis AD, Khan Y, Dupuis R, Taylor JA. (2016). *A Strained 9-1-1 System and Threats to Public Health*. Retrieved from: <https://pubmed.ncbi.nlm.nih.gov/26704911/>. Access date: 5/29/2020.

285 Alpert, A., Morganti, K. G., Margolis, G. S., Wasserman, J., & Kellermann, A. L. (2013). *Giving EMS Flexibility in Transporting Low-Acuity Patients Could Generate Substantial Medicare Savings*. Retrieved from: <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2013.0741>. Access date: 5/29/2020.

286 Arizona Department of Health Services. (2019). *Emergency Medical Services 2019 Annual Report*. Retrieved from: <https://www.azdhs.gov/documents/preparedness/emergency-medical-services-trauma-system/reports/2019-ems-annual-report.pdf>. Access date: 5/29/2020.

Arizona is already an innovator in better responding, and regional efforts within each system to address caller needs continue to evolve. An example of this is regional deployment of unique resources such as specialized crisis intervention teams by law enforcement,²⁸⁷ fire agencies,²⁸⁸ and crisis lines to address callers' behavioral health needs.

Community differences such as socioeconomic status, cultural demographics, rurality, and tribal sovereignty plays significant roles in Arizona's FR/PS (first responders/ public safety) systems. For example, the 911 systems of many sovereign tribal nations are separately operated and administered and rural counties experience significant differences in resources versus urban counties with population and resource centralization.²⁸⁹

Law Enforcement

Arizona has approximately 163 law enforcement agencies spanning state and local entities composed of about 14,500 sworn police officers.²⁹⁰ Agencies include entities at the Federal (10+), State (12), Regional (4), County (17), Municipal (79), School/College (12), and Tribal (17) levels. In 2018, Arizona Uniform Crime Reporting (UCR) data indicated a total 213,784 documented crimes, ranging from 16,644 to 19,710 offenses recorded monthly.²⁹¹ The range of crimes classified include murder, rape, property theft, assault, arson, human trafficking and prostitution, and drug trafficking/solicitation. The 2018 Arizona UCR Report indicates an average of the following reported crimes in every 24-hour period: 372 larceny-thefts, 82 burglaries, 51 aggravated assaults, 49 motor vehicle thefts, 18 robberies, 9 rapes, 4 arsons, and 1 murder.

ARIZONA LAW ENFORCEMENT QUICK NOTE²⁹²:

Law Enforcement Officer Ratios

Arizona Ratio Range	10-20 LE Officers per 100,000 population
National Ratio Range	18-26 LE Officers per 100,000 population

287 Balfour, M. E., Winsky, J. M., & Isely, J. M. (2017). The Tucson Mental Health Investigative Support Team (MHIST) Model: A Preventive Approach to Crisis and Public Safety. Retrieved from: <https://ps.psychiatryonline.org/doi/pdfplus/10.1176/appi.ps.68203>. Access date: 5/29/2020.

288 Beagley, D., Minor, B., & Westmiller, J. (2018). Crisis Support Training: Partnering Firefighters and Police on Crisis Calls. 2018 Crisis Intervention Training International Conference. Retrieved from: <http://www.citinternational.org/resources/Documents/Crisis%20Support%20Training.pdf>. Access date: 5/29/2020.

289 International Association of Chiefs of Police. (2018). *Practices in Modern Policing: Policing in Small, Rural, and Tribal Communities*. Retrieved from: https://www.theiacp.org/sites/default/files/2018-11/IACP_PMP_SmallTribal.pdf. Access date: 5/29/2020.

290 Arizona Secretary of State. (2019). *Arizona Peace Officer Standards and Training (AZPOST) Board*. Retrieved from: https://apps.azsos.gov/public_services/Title_13/13-04.pdf. Access date: 5/29/2020.

291 Arizona Department of Public Safety. (2019). *Crime in Arizona January-December 2018*. Retrieved from: https://www.azdps.gov/sites/default/files/media/Crime%20in%20Arizona%202018_0.pdf. Access date: 5/29/2020.

292 Governing. (2020). *Law Enforcement Officers Per Capita for Cities, Local Departments*. Retrieved from: <https://www.governing.com/gov-data/safety-justice/law-enforcement-police-department-employee-totals-for-cities.html> also see following links: <https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/police-employee-data>; https://icma.org/sites/default/files/305747_Analysis%20of%20Police%20Department%20Staffing%20_%20McCabe.pdf. Access date: 5/29/2020.

Statewide, 14 core training facilities are maintained to provide consistent education to LE (law enforcement) trainees. Funding for these facilities is principally secured through the Criminal Justice Enhancement Fund administered by the Arizona Peace Officer Standards and Training Board.²⁹³ Other sources of funding include state and local tax allocation to municipalities and counties, and (at the state level) addition of the Public Safety Fee in 2018 to fund DPS highway operations. Beyond tax and fee funding mechanisms, LE agencies often generate additional revenue through local administrative fees, the sale of seized property, and the procurement of state, federal, and private grants.²⁹⁴

Fire & Emergency Medical Services (EMS)

Arizona fire and emergency medical services (EMS) are organized at several different levels. Local fire and EMS are delivered by public and private fire departments, fire districts, and private EMS. Arizona's fire service is structured at the state, county, tribal, and municipal levels. There are 63 Municipal Fire Departments, 130 Public Fire Districts, 16 Private Agencies and 42 EMS Agencies (24 Ground, 18 Air).

The National Fire Information Reporting System (NFIRS) notes that 70.6% of reported fire agency incidents in 2018 were related to EMS requests while under three percent were fire related.²⁹⁵ Across the U.S., fire related calls have decreased from 2.9 million in 1980 to about 1.3 million in 2018. Meanwhile, over the same time period, calls for medical aid have increased from about 5 million to over 23 million calls annually,²⁹⁶ credited to community education, prevention, and policy efforts nationally.

Arizona's Emergency Medical Care Technicians (EMCTs) were responsible for about 678,000 911 calls for emergency medical needs in 2018; about 406,000 of those calls resulted in an ambulance transport to an Arizona physical or behavioral health facility.²⁹⁷

While many fire departments/districts have both fire and EMS (ambulance) apparatus, some fire agencies do not maintain ambulance operations and may rely on private EMS response to support this function. Most Arizona fire agencies require fire fighters be certified as an EMCT. Fire apparatus is often outfitted with the same supplies and equipment as an ambulance, enabling emergency medical interventions to take place as quickly as possible for time sensitive emergencies. To be certified, ground and air ambulances are each required to maintain Arizona Department of Health Services (ADHS) inspections with required medications and equipment to serve a wide range of patient medical and trauma needs.²⁹⁸

293 Arizona Joint Legislative Budget Committee. (2019). *Law Enforcement Training*. Retrieved from: <https://www.azleg.gov/ilbc/psdpslawenforcement.pdf>. Access date: 5/29/2020.

294 The current vehicle registration fee of \$32 which contributes to this revenue may be going away in July 2021. Read more here: <https://www.azcentral.com/story/news/politics/arizona/2019/05/22/deal-reached-repeal-32-vehicle-registration-fee-over-two-years-senator-says/1197085001/>. Access date: 8/5/2020.

295 Federal Emergency Management Agency. (2019). *National Fire Incident Reporting System, Arizona Fire Loss/Fire Department Profile*. Retrieved from: <https://www.usfa.fema.gov/data/statistics/states/arizona.html>. Access date: 5/29/2020.

296 National Fire Protection Association. (2019). *Fire Department Calls*. Retrieved from: <https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/Fire-department-calls>. Access date: 5/29/2020.

297 Arizona Department of Health Services. (2019). *Emergency Medical Services 2019 Annual Report*. Retrieved from: <https://www.azdhs.gov/documents/preparedness/emergency-medical-services-trauma-system/reports/2019-ems-annual-report.pdf>. Access date: 5/29/2020.

298 Arizona Department of Health Services. (2020). *Ambulance Programs*. Retrieved from: <https://www.azdhs.gov/preparedness/emergency-medical-services-trauma-system/index.php#ambulance>. Access date: 5/29/2020.

Behavioral Health Crisis Response

Throughout the U.S., mental illness impacts about one in five individuals, while only about 43% of individuals with a mental illness reported receiving treatment in 2018.²⁹⁹ Regionally, several Arizona communities see rates of death by suicide that approach or surpass three times the national rate, including La Paz, Navajo, Apache, and Yavapai Counties.³⁰⁰

ARIZONA BEHAVIORAL HEALTH STATUS QUICK NOTES³⁰¹:

Suicide Deaths Per 100,000 Population	Details Per 100,000 Population
Arizona: 19	Range: 4.3 (Santa Cruz County) – 46.2 (La Paz County)
United States: 14.5	Range: 8.3 (New Jersey/New York) – 25.2 (Wyoming) ³⁰²

Since 2005, considering mental health trends throughout the United States, the National Suicide Prevention Lifeline has led federally funded efforts to create a hub for crisis call services. Of the 47,344 Arizona callers to the National Suicide Prevention Lifeline in 2018, 29,257 calls were directly served by Arizona’s two major behavioral health crisis response systems locally, while 15,032 were served by the Veterans Crisis Line, and 684 elected for the National Lifeline’s Spanish Language Line. Of note, the remaining 2,371 Arizona callers were not able to be answered by Arizona crisis line professionals and were answered by a partner crisis line outside Arizona.³⁰³

Current efforts by Congress and the FCC are underway to support the advancement of 988 as the uniform number for accessing suicide prevention and mental health crisis hotline services nationally.³⁰⁴

The Arizona Health Care Cost Containment System (AHCCCS) is the key funder for crisis services across Arizona. As AHCCCS advances practices to support its Whole Person Care Initiative³⁰⁵ to address the many social components that impact health outcomes, AHCCCS is charging its contracted health plans to advance community outreach, education, and accessibility to Arizona’s crisis services. With Arizona having an increasing rate of deaths by suicide, there is a call to increase the capacity of the state’s crisis services. Despite this, funding for these services has stagnated since 2011.³⁰⁶

299 National Alliance on Mental Illness. (2020). *Mental Health by the Numbers*. Retrieved from: <https://nami.org/mhstats>. Access date: 5/29/2020.

300 Arizona Department of Health Services. (2019). *Suicide and Self-Inflicted Injury: Arizona, 2006-2017*. Retrieved from: <https://pub.azdhs.gov/health-stats/report/suicide/2018/suicide-report-12-2018.pdf>. Access date: 5/29/2020.

301 America’s Health Rankings. (2020). *Trend: Suicide, Arizona, United States*. Retrieved from: <https://www.americashealthrankings.org/explore/annual/measure/Suicide/state/AZ>. Access date: 5/29/2020.

302 Centers for Disease Control and Prevention. (2020). *National Center for Health Statistics Suicide Mortality by State*. Retrieved from: <https://www.cdc.gov/nchs/pressroom/sosmap/suicide-mortality/suicide.htm>. Access date: 5/29/2020.

303 National Suicide Prevention Lifeline. (2019). *Arizona Callers in 2018*. Retrieved from: <https://suicidepreventionlifeline.org/wp-content/uploads/2019/10/Arizona-Lifeline-2018-Report.pdf>. Access date: 5/29/2020.

304 Federal Communications Commission. (2020). *FCC Proposes New 3-Digit Number as Suicide Prevention & Mental Health Crisis Hotline*. Retrieved from: <https://www.fcc.gov/fcc-proposes-new-3-digit-number-suicide-prevention-mental-health-crisis-hotline>. Access date: 5/29/2020.

305 Arizona Health Care Cost Containment System. (2020). *AHCCCS Whole Person Care Initiative*. Retrieved from: <https://www.azahcccs.gov/AHCCCS/Initiatives/AHCCCSWPCI/>. Access date: 5/29/2020.

306 AZ Legislature. (n.d.). *Total Behavioral Health Spending – FY 2008 to FY 2016*. Retrieved from: <https://www.azleg.gov/jlbc/bhspending.pdf>. Access date: 8/17/2020.; For 2019 and 2020 see the following: <https://www.azleg.gov/jlbc/20AR/axs.pdf> & <https://www.azleg.gov/jlbc/21baseline/axs.pdf>. Access date: 8/18/2020.

Arizona's two crisis call centers aligned with the National Suicide Prevention Lifeline are designed to support callers in crisis throughout the state regardless of insurance status.³⁰⁷ Following national best practices, Crisis Response Network and La Frontera EMPACT screen caller concerns related to a crisis such as suicidality, assess needs and risk, and link appropriate mobile crisis resources for crisis stabilization, and/or coordinate follow up care³⁰⁸ in partnership with AHCCCS contracted administrators to integrate these services.³⁰⁹

Public Safety and Vibrant Communities

Many cooperative efforts across Arizona have advanced in recent years, especially in key areas of challenge such as the burden of mental illness within each system. Law enforcement and fire/EMS professionals across Arizona have increased access to training, especially related to Crisis Intervention Team (CIT) training. CIT training was originally developed to increase LE officer awareness of issues related to mental illness, seeking to reduce the risk of death or injury during interactions between LE and individuals with mental illness. This remains relevant, as about a quarter of approximately 1,000 individuals fatally shot by LE in the U.S. in 2018 were individuals with mental illness.³¹⁰ CIT training, as well as other curricula like Mental Health First Aid®, have been adapted to also include fire and EMS professionals who are often called to respond to incidents involving patients with mental illness.

Breakthrough Example: Tucson Behavioral Health

The Tucson Police Department's (TPD) efforts to train its officers in mental health crisis dramatically decreased the department's rate of officer-involved shootings. Instead, officers increased utilization of pathways other than arrest to link individuals experiencing mental health challenges with resources such as substance abuse treatment, housing, and other health/social services.

The National Institute of Mental Health details that, "at least as far back as the deinstitutionalization of mental health care and the profound lack of community-based resources to fill service deficits, the role of police as mental health interventionists has been controversial and complex."³¹¹ In support of aligning policing practices with community need, TPD was named a Mental Health Learning Site by the U.S. Department of Justice, allowing agencies across the country to learn from Tucson's success directly.

307 Arizona Health Care Cost Containment System. (2020). *AHCCCS Complete Care Crisis Services FAQs*. Retrieved from: https://www.azahcccs.gov/AHCCCS/Downloads/ACC/View_Crisis_System_FAQs.pdf. Access date: 5/29/2020.

308 Substance Abuse and Mental Health Services Administration. (2020). *National Guideline for Behavioral Health Crisis Care*. Retrieved from: <https://www.samhsa.gov/sites/default/files/national-guidelines-for-behavioral-health-crisis-care-02242020.pdf>. Access date: 5/29/2020.

309 Arizona Health Care Cost Containment System. (2020). *AHCCCS Complete Care Crisis Services FAQs*. Retrieved from: https://www.azahcccs.gov/AHCCCS/Downloads/ACC/View_Crisis_System_FAQs.pdf. Access date: 5/29/2020.

310 Rogers, M. S., McNeil, D. E., & Binder, R. L. (2019). *Effectiveness of Police Crisis Intervention Training Programs*. Retrieved from: <http://jaapl.org/content/early/2019/09/24/JAAPL.003863-19>. Access date: 5/29/2020.

311 Wood, J. D., & Watson, A. C. (2017). *Improving Police Interventions During Mental Health-Related Encounters: Past, Present and Future*. Retrieved from: <https://www.tandfonline.com/doi/full/10.1080/10439463.2016.1219734>. Access date: 5/29/2020.

Breakthrough Example: Regional Community Paramedicine and Treat & Refer

Historically, fire and EMS agencies were bound to respond and transport a patient to an emergency department when any level of care was necessary. Community paramedicine programs that transform EMS from responders to proactive mobile health providers have grown statewide since 2014 to include more than 30 agencies that address community health and social needs proactively, with the goal to prevent 911 calls, reduce healthcare costs, and improve patient outcomes. Directly in response to a 911 call, Arizona's Treat & Refer Program³¹² creates a pathway for fire and EMS agency leadership and medical directors to go beyond just medical transport – providing an opportunity to reduce costs and improve outcomes more effectively. Since Arizona's adoption of Treat & Refer, the Centers for Medicare and Medicaid Services created the Emergency Triage, Treatment, and Transportation (ET3) Innovation Model to support demonstrating a similar model nationally to support screening 911 callers with low-acuity needs and subsequent linkage to applicable resources.³¹³

Although many additional cross sector collaborations exist to build more vibrant communities across Arizona, these efforts to address the pressing and community wide needs of community members with mental illness align with many other sector efforts such as broader criminal justice system involvement, housing insecurity, higher level access to health care, education, economic, and certainly social justice.

About the Authors

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Matt enjoys working with a broad array of stakeholders to explore and implement sustainable enhancements to improve community health ecosystems. Matt is proud to be a part of work across the U.S. to address root causes of illness and injury through the evolution of Mobile Medicine (Mobile Integrated Healthcare). Matt finds great joy in advocacy planning, stakeholder engagement, and program development to connect what makes a community's health shine. Matt earned a Bachelor of Science degree in Psychology/Biology from Northern Arizona University and a Master of Public Health degree from the University of Arizona Zuckerman College of Public Health.

Jesus Rivera, Paramedic and Division Chief, Surprise Fire-Medical Department

Jesus Rivera has served as a member of the Surprise Fire-Medical Department (SFMD) for over 22 years. Jesus is a Paramedic and Division Chief over Surprise's Medical Services programs which includes Mobile Integrated Healthcare, Community Paramedicine and Emergency Medical Services. Jesus received Surprise's Fire Chief's award in 2016, the AEMS Aces of Hearts award in 2018 and Image Trend Hooley Award for Innovation in 2019. Jesus has an Associate's degree in Paramedicine, a bachelor's degree in Public Safety and is currently pursuing a master's in Public Safety Leadership & Administration (Emergency Medical Services-Mobile Integrated Healthcare).

312 For more information on Treat & Refer see here: <https://www.azdhs.gov/preparedness/emergency-medical-services-trauma-system/index.php#tr-emergency-recognition>.

313 Centers for Medicare and Medicaid Services. (2020). Emergency Triage, Treatment, and Transport (ET3) Model. Retrieved from: <https://innovation.cms.gov/innovation-models/et3> Also see link: https://mfprac.com/web2019/07literature/literature/Misc/EMS-Realignment_Munjaj.pdf. Access date: 6/1/2020.

Pre-Community Engagement

Adapted by Vitalyst Staff from the works of Stephanie Luz Cordel, All Voices Consulting and C.J. Eisenbarth Hager

This topic intersects and explores these elements of a vibrant community:



Effective Community Engagement is a "Make or Break" Skill for Vibrant Communities

Communities are vibrant when supported by responsive and effective public policies and investments. Conversely, they are dysfunctional when those policies and investments are ineffective and unresponsive. In this regard, consider that vibrancy can be developed most effectively through inclusive and respectful community participation.

THE INTERNATIONAL ASSOCIATION FOR PUBLIC PARTICIPATION (IAP2) CONTINUUM

INCREASING IMPACT ON THE DECISION 

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

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Such engagement is distinguished by the International Association for Public Participation (IAP2) Continuum as moving beyond typical actions of “consulting” and “involving” communities and reaching “collaboration” and “empowerment” levels. In other words, effective community engagement actionably delivers on the promise that either “we will incorporate your advice and recommendations” or “we will implement what you decide.”

“Pre-community engagement refers to the preparation needed to develop a community engagement plan and strategies that inspire community participation and connect with residents in an authentic way”

So how do you get public participation right? Nationally, IAP2 sets a high bar for cities and towns. Locally, Vitalyst Health Foundation commissioned a Pre-Community Engagement study and report of methods, underlying values, and lessons learned that provides guidance on how to invest early and often in ways to get there.

Methodology

Pre-Community Engagement Methodology incorporates three core steps to develop an approach that is meaningful, relative, and personalized to a community: (1) seek to understand the layers within a community, (2) understand a range of community member perspectives, and (3) identify engagement strategies that support community preferences. While this is not exhaustive, it does highlight the upfront work that needs to be done.

1. **Seek to Understand the Layers within a Community.** Not all members within a community are the same. Understand the sub-communities, different groups, and various sectors within a particular “community”:
 - a. **Identify Existing Relationships within a Community.** They are key to more nuanced, honest perspectives and are a starting point for connection and trust.
 - b. **Understand Community Networks.** Find resident leaders, find the history, find the connections, and find the community's flow of networks.
 - c. **Understand the History of Place through formal and informal sources.** Articles only tell part of the story; oral histories provide unique and valuable perspective.
 - d. **Understand Previous Engagement Efforts.** Knowing the history and lessons of past and recent engagement is key and can provide informative lessons.
2. **Understand a Range of Community Member Perspectives.** Collaborate with community members on barriers that may prevent engagement. Ask about channels (methods and places) through which a community would engage most readily and easily.
3. **Identify Engagement Strategies that Support Community Perspectives.** Collaborate on strategies to address identified barriers. Practice new habits of collaboration and empowerment.

Underlying Values

Authentic community engagement is effective when using a values-driven approach. The “why” and the “how” matter more than the “what” when building relationships and trust. Below is a set of values to center as community pre-engagement and engagement takes place.

1. **Value Lived Experience.** Treat community members’ inherent knowledge and expertise earned through life experience as importantly as formal project expertise.
2. **Recognize History of Place.** Become familiar with the historical context every community has, because it impacts community dynamics, reactions, and connections.
3. **Promote Power to Influence.** Allow community input to influence project trajectory. Allow community members to hold power in how it develops.
4. **Operate with Transparency.** Be open and transparent always to build trust. Be clear and open about the process and how community members will influence it.
5. **Approach with Humility.** Always come from a place of humility and valuing community members’ lived experiences and expertise. Be a facilitator, not a director.
6. **Center Authenticity.** Do the work beyond transaction. Connect authentically, and value people as people rather than data points. Center relationships and trust so that resident input drives change.
7. **Value People’s Time.** Provide tangible value like participation stipends, meals, and/or childcare to help receive all the community input possible. Do not inequitably expect the community to participate for free when everyone else in the room is paid.

A Cautionary Tale: Lessons Learned in South Phoenix

In 2016, the City of Phoenix voted to fast-track a light rail extension from downtown to South Phoenix. Doing so started a multi-year journey of steps and missteps in terms of fostering collaborative and empowering community engagement – culminating in a ballot measure that forced the taking of sides and a win-lose dynamic. In August of 2019, Phoenix voters defeated a ballot question that would have prohibited any further expansion of the light rail system. Analysis of the events and effects that transpired produced the following series of lessons and recommendations:

1. **Prioritize engagement.** Significant investments and policy changes call for commensurate investment in authentic relationships.
2. **History speaks louder than words.** Any barriers to trust created by past city/town decisions and previous engagement efforts inform public perception.
3. **Trust is key to authentic engagement.** Relationships cultivated over time create authentic feedback.
4. **Transparency is important.** Residents want to not only be heard, but to clearly understand how their participation makes a difference.
5. **Power comes through ownership.** Traditional “informing” and “consulting” takes on an extractive quality; residents naturally want participation and power to oversee how their input is converted to action.
6. **There is no “one” community.** Neighborhoods can encompass hundreds or thousands of unique people. Boiling down one demographic group to a single viewpoint can be dismissive if not dangerous. Anticipate complex and diverse opinions.

MORE LESSONS FROM THE SOUTH PHOENIX LIGHT RAIL EXTENSION EXPERIENCE

1

Build Trust: Ensure Residents Have Clear Ways They Influence the Process

Respondents expressed lack of trust with the City of Phoenix as a whole as a barrier to participation. This level of trust is based on previous experience with government entities.

2

Support Resident Understanding of How They Can Influence the Process

Many respondents shared their interest in understanding how their feedback would influence the process. This includes breaking information down into clear language for a range of experience levels and learning styles.

3

Validate Community Contributions

When respondents were asked how they would know the City has taken their feedback into account, many shared specific ways they could be validated.

4

Create a Feedback Loop

Many respondents shared their desire for feedback regarding their participation and the ability to track their contribution within the larger project.

5

Engage through Existing Relationships

Perhaps the most effective way to build trust is to engage residents through established community relationships. It not only increases the likelihood of more people to participate, but there is a stronger chance to have more candid feedback. It also impacts the level of motivation to be involved. Relationships are the foundation of the South Phoenix community.

6

Meet People Where They Gather

There are several locations within the community that residents frequent, including grocery stores, festivals, gatherings, schools, car shows, etc.

7

Collaborative Engagement Approach

Many respondents preferred the engagement to have more community leadership in order to promote a sense of ownership in the activities.

8

Offer a Variety of Engagement Options and Modes of Communication

Several respondents offered solutions to common barriers by promoting the use of a variety of engagement options, particularly to accommodate people's time and availability. There was not one preferred way of reaching out to residents in the community.

9

Provide Informal Engagement Opportunities

South Phoenix residents expressed their discomfort with formal meeting spaces that often feel too structured and rigid to express themselves without judgment.

10

Address Common Barriers of Participation

Respondents shared what they believed to be the most common barriers to participating and offered some possible solutions to consider. Many respondents shared incentives as motivating people towards participation.

Authors Concur: The Keys to Creating Vibrant Communities in Arizona

Vitalyst Staff

This report's authors come from a breadth of sectors. Their experience in their chosen field averages roughly three decades per author. Some were born here. Some are recent transplants bringing lessons from other cities, towns, and states. Their perspectives have every reason to diverge.

Against this background of diversity, broad themes still emerged consistently:

- Data shows the challenge of healthy, vibrant communities is complex and daunting:
 - The numbers can be overwhelming, particularly in most-impacted communities.
 - Systemic, long-term challenges are on the table.
 - What has taken decades to create will take time to change, but opportunities and "early wins" are evident.
- The path to making a difference starts with three key components:
 - Transforming policies, systems, and environments to align with the goals of well-being and community vibrancy.
 - Emphasizing equity and community-driven solutions that are developed at the speed of trust.
 - Collaborating across sectors to make success more comprehensive and less costly.
- To create breakthrough solutions, consider carefully what we identify as "root causes".
 - The cause and effect equation works toward intended outcomes only when we carefully and collectively identify the cause part of the equation first.

Finally, we are making choices whether we think we are or not. To paraphrase Gil Penalosa, the founder and chair of 880 communities and advocate for vibrant communities, "If we don't choose bikes, we choose pollution." To do nothing is to keep Arizona on its current path, where the breadth and depth of challenges to community vibrancy will only increase.

As last year's report, "Strong Families, Thriving Children," noted in the lead up to 2019's Community and Statewide Town Halls, this is an exciting time to fully engage in this work, because Arizona is learning and beginning to internalize what it means to actualize a multi-sector, collaborative approach to well-being and vibrancy. Such work applies not just to the individual or families. It is critical to how we improve neighborhoods, communities, municipalities, and the tapestry of policies, systems, and environments woven throughout.

Given those levels and that tapestry, we are without question embarking on a compelling "all hands, all voices" 2020 Arizona Town Hall journey to discover insights and recommendations for vibrant communities.

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