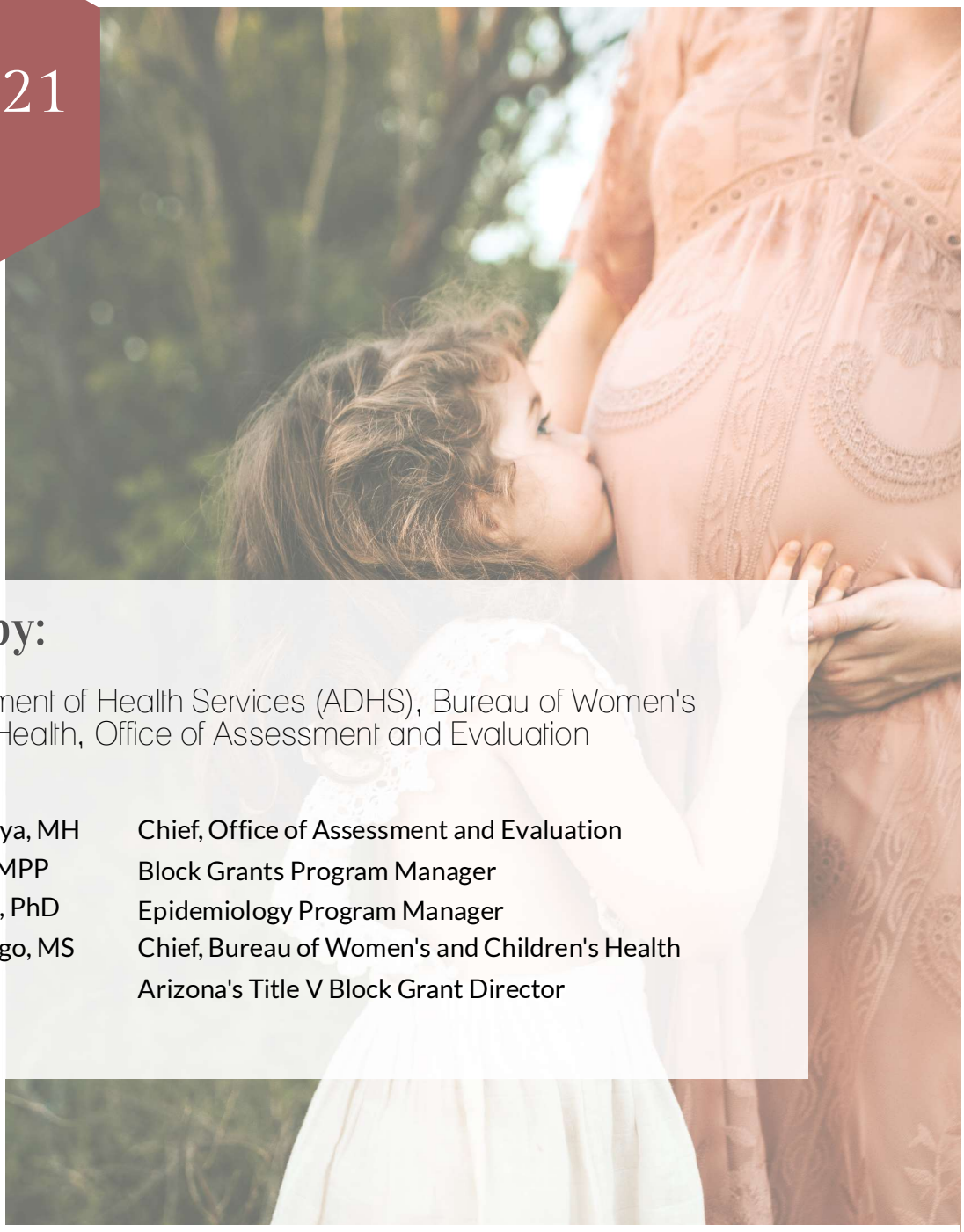
2020

ARIZONA STATEWIDE MATERNAL AND CHILD HEALTH NEEDS ASSESSMENT REPORT

ARIZONA DEPARTMENT OF HEALTH SERVICES

Arizona's Statewide Maternal and Child Health Needs Report 2020

July 2021



Prepared by:

Arizona Department of Health Services (ADHS), Bureau of Women's and Children's Health, Office of Assessment and Evaluation

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- Patricia Tarango, MS — Chief, Bureau of Women's and Children's Health; Arizona's Title V Block Grant Director

TABLE OF CONTENTS

Acronyms

ACA	Affordable Care Act
ACC	AHCCCS Complete Care
ADHS	Arizona Department of Health Services
AHCCCS	Arizona Health Care Cost Containment System (Arizona's Medicaid Program)
BWCH	Bureau of Women's and Children's Health (with the Arizona Department of Health Services)
CAST-V	Capacity Assessment for State Title V (a set of assessment and planning tools designed to assist state Title V programs in examining their organizational capacity to carry out core maternal and child health functions)
CDC	Centers for Disease Control
CHIP	Children's Health Insurance Program
CHR	Community Health Representatives
CRS	Children's Rehabilitative Services
CSHCN	Children with special health care needs
CYSHCN	Children and youth with special health care needs
FG	Focus group
FPL	Federal Poverty Level
HPSA	Health Professional Shortage Area
HPV	Human papillomavirus
HRSA	Human Resources & Services Administration (under Department of Health and Human Services)
IGA	Intergovernmental Agreement
IHS	Indian Health Services
IRC	International Rescue Committee
ITCA	Inter Tribal Council of Arizona
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (inclusive of other groups that are not heterosexual or cisgender and their allies)
MCH	Maternal and child health
MCHB	HRSA's Maternal and Child Health Bureau
MIECHV	Maternal, Infant, and Early Childhood Home Visiting Program (HRSA funded)
MMR	Measles, Mumps, Rubella
MMRC	Maternal Mortality Review Committee
MMRP	Maternal Mortality Review Program
NAEP	National Assessment of Educational Progress
NAS	Neonatal Abstinence Syndrome
NPM	National Performance Measure (part of HRSA's evaluation framework for the Title V Program)
NSCH	National Survey of Children's Health

PRAMS	Pregnancy Risk Assessment Monitoring System
SDOH	Social Determinants of Health
S/EAHEC	South Eastern Area Health Education Center/Eastern Area Health Education Center
SHA	State Health Assessment
SIDS	Sudden Infant Death Syndrome
SMM	Severe Maternal Morbidity
SNAP	Supplemental Nutrition Assistance Program (formerly food stamps)
SOBRA	Sixth Omnibus Budget Reconciliation Act
SPM	State Performance Measure (part of HRSA's evaluation framework for the Title V Program)
SSDI	State Systems Development Initiative
SWOT	Strengths, Weaknesses, Opportunities and Threats
TVIS	HRSA's Title V Information System
USDA	United States Department of Agriculture
VA	Veterans Affairs
WIC	Women, Infants and Children Program
YRBS/YRBSS	Youth Risk Behavior Survey/Youth Risk Behavior Surveillance System

ACKNOWLEDGEMENTS

Any assessment and report of this size is very much a team effort. First and foremost, we would like to acknowledge our incredible partners in the implementation of this assessment: the University of Arizona, Diné College of the Navajo Nation, and the Inter Tribal Council of Arizona (ITCA). We would so fortunate to work alongside dedicated colleagues at each of these institutions to better understand maternal and child needs in different communities across Arizona. We would also like to recognize our dedicated colleagues within the Arizona Department of Health Services:

- Celia Nabor, former Chief, Bureau of Nutrition and Physical Activity and WIC Director;
- Marlene Hernandez, current Bureau Chief for the Bureau of Nutrition and Physical Activity and WIC Director;
- Wayne Tormala, former Chief, Bureau of Chronic Disease and Health Promotion;
- Teresa Aseret-Manygoats, Bureau Chief for the Bureau of Chronic Disease and Health Promotion;
- Dawn Bailey, Family Engagement Specialist;
- Laura Luna Bellucci, Chief, Office of Children's Health;
- Angie Lorenzo, Chief, Office of Women's Health;
- Ana Roscetti, former Chief, Primary Care Office (and currently Director of Workforce at the Arizona Alliance for Community Health Centers);
- Julia Wacloff, Chief, Office of Oral Health;
- Tracy Lenartz; Dave Nakashima; and Gerilene Haskon along with our team of maternal and child epidemiologists (Aline Indatwa, Kate Lewandowski, Enid Quintana Torres, Stephanie Brenhoffer, Kristen Lovett, Marguerite Sagna-Kemp, Erin Ogram, Gina Herrera, Alexis Griffin, and Steven "Rob" Bailey), and our Assistant Director for Division of Public Health Prevention, and many, many others.

This report was prepared by Arizona's Title V Program. This work is funded through a federal-state partnership with the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau to promote and improve the health and well-being of the Arizona's mothers and children, including children with special needs, and their families.

For more information on the work of the Arizona Department of Health Services and its Bureau of Women's and Children's Health, please visit www.azhealth.gov.

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Dear Reader,

We are pleased to share our findings from the 2020 Title V Needs Assessment with you. The mission of the Arizona Department of Health Services (ADHS) is to promote, protect, and improve the health and wellness of individuals and communities across Arizona. ADHS, through the Bureau of Women's and Children's Health (BWCH), is honored to receive and implement the Maternal and Child Health Services Block Grant, through Title V of the Social Security Act, to promote and improve the health and well-being of the Arizona's mothers, infants, children and adolescents, including children with special needs and their families.

As a condition of this funding, the federal government requires states to complete a needs assessment every five years to gain a better understanding of Arizona's public health system and service provision for the populations listed above. The findings from the needs assessment are then used to guide program planning, strategy, and resource allocation over the next five years and are shared with partners, external stakeholders, and the public for their use.

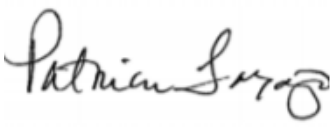
For the 2020 Title V Needs Assessment, we took special care to ensure that we incorporated community voice into the assessment, particularly from those individuals and groups whose voices are not always well heard. In addition to collecting and analyzing quantitative maternal, infant, and child data from national and state data sources, the assessment was designed to engage families and the public through a public survey, focus groups, and community forums to solicit qualitative and quantitative data that draws on the experience and knowledge of the communities we serve. We partnered with Diné College and the Inter Tribal Council of Arizona (ITCA) so that they could assist us in determining the maternal and child health needs and priorities among Arizona's 22 federally recognized tribes; a first for Arizona's Title V Needs Assessment.

We were fortunate as well to be guided by our Steering Committee, whose membership is drawn from those organizations and individuals that are critical to addressing the needs and supporting the priorities identified through this assessment. Throughout this process, they provided feedback on data collection approaches and tools, leveraged existing partnerships for participation in assessment activities, and generously shared their wisdom and insights.

We hope that the findings presented here shed light on critical challenges and needs faced by Arizona's families, inform your understanding of these issues, and help guide your work in service to these populations, as they guide ours.

Happy reading!

Kind regards,



Patricia Tarango
Chief, Bureau of Women's and Children's Health
Arizona Department of Health Services

ADHS

INTRODUCTION

Title V of the Social Security Act provides for programs to improve the health of all mothers, children, children with special health care needs (CSHCN), and adolescents through a mechanism called the Title V Maternal and Child Health Block Grant. Implementation of Title V programs is a federal-state partnership and is administered by the federal Maternal and Child Health (MCH) Bureau, Health Resources and Services Administration (HRSA). In Arizona, the Arizona Department of Health Services' Bureau of Women's and Children's Health is the administrative unit of this block grant. As a condition of the block grant, HRSA requires each state's Title V Program to complete a needs assessment every five years.

As a condition of the block grant, HRSA requires each state's Title V Program to complete a needs assessment every five years. For the 2020 Needs Assessment, the Arizona Department of Health Services (ADHS) partnered with the University of Arizona, Diné College of the Navajo Nation, and the Inter Tribal Council of Arizona (ITCA) to conduct the statewide Title V Maternal and Child Health Needs Assessment.

This report presents findings from this comprehensive assessment. This report provides a description of the overall process and methodologies used by Arizona to gather public input on the status of women and children and review the findings from the public process and presents a review of the data on the health status of women, infants, children, children with special healthcare needs, and adolescents. We also discuss the capacity of ADHS to care for women and children, including workforce composition and development and partnerships and collaboration with the larger community. Finally, we present Arizona's 2020-2025 maternal and child health priorities; describing how we arrived at these priority needs and how they are linked to performance measures.

ARIZONA'S TITLE V PROGRAM

The Arizona Department of Health Services (ADHS) is one of the executive agencies that report to the Governor. Arizona Revised Statute (A.R.S. § 36-691) designated ADHS as Arizona's lead state agency for the administration of Title V. The Arizona Department of Health Services is organized into four divisions: Public Health Services, Licensing Services, Operations, and the Arizona State Hospital. The Office of Director includes a Native American Liaison, Local Health Liaison, Border Health, Public Information Office, and Legislative Services. The Bureau of Health Statistics is also part of the Division of Public Health Services. An ADHS organization chart is available on the web page of the Director's Office: https://www.azdhs.gov/director/ - org-chart.

The Arizona Department of Health Services, Division of Public Health Services, is organized into two primary service lines: Public Health Preparedness Services and Public Health Prevention Services. The Bureau of Women's and Children's Health (BWCH) is housed under Public Health Prevention Services along with two other bureaus: Nutrition and Physical Activity (includes the WIC Program) and Chronic Disease and Health Promotion (includes tobacco control and health equity).

BWCH is organized into five (5) offices: Office of Children's Health (includes Infant Health and Children and Youth with Special Health Care Needs), Women's Health (includes Adolescent Health), Office of Oral Health, Primary Care Office, and the Office of Assessment and Evaluation . In 2020, Ms. Patricia Tarango, Bureau Chief, Bureau of Women's and Children's Health (BWCH), served as both the Title V MCH Block Grant Director and Title V Children with Special Health Care Needs (CSHCN) Director.

ARIZONA'S TITLE V PROGRAM, Cont.

Most of the programs funded through Title V are housed within BWCH. Where Title V-funded programs and activities occur outside the BWCH, there is a clear coordination of efforts between BWCH and the outside agencies.

The mission of BWCH is to strengthen the family and the community by promoting and improving the health and safety of women and children. The Bureau uses Title V funds, other federal funds, and state funds to accomplish this mission; thus, increasing accessibility to affordable quality care, promoting best practices, supporting programs and services that continue Arizona's efforts to address priorities by populations. BWCH strives to: 1) reduce mortality and morbidity among women and children, 2) eliminate health disparities in health outcomes and access to services, and 3) increase access to health care; applying our key values of service, partnerships, integrity, teamwork, quality, diversity, accountability, flexibility, and community to the work we do. Below is a summary of BWCH's overarching goals and key values.

Steering Committee Members

- Bonnie Drenth-Maricopa Department of Health
- Breann Westmore-March of Dimes
- Christopher Tiffany-Raising Special Kids
- Crista Johnson-Agbakwu-ValleyWise Health Medical Center-Women's Refugee Health Clinic
- Dawn Bailey-Family Representative
- Dean Coonrod-ValleyWise Health Medical Center
- Deb Christian-Arizona Perinatal Trust
- Erick Tack-Arizona Health Cost Containment System
- Jamie Ritchey-Intertribal Council of Arizona - Epidemiology Center
- John Ehiri-University of Arizona - College of Public Health
- Kelly Murphy-Arizona Early Childhood Alliance
- Leah Myers-Arizona Rural Women's Health Network/ Arizona Alliance for Community Health Centers
- Lisa Rascon-University of Arizona - Pediatric Pulmonary Center
- Maria Manriquez-University of Arizona - College of Medicine
- Mariely Lopez-Chicanos Por La Causa-Head Start
- Mary Ellen Cunningham-Arizona Public Health Association
- Meloney Baty-Maricopa County Department of Public Health – Healthy Start
- Patricia Tarango-Arizona Department of Health Services – Title V Director
- Robert Johnson-SHCR
- Roopa Iyer-First Things First
- Susan Rice-University of Arizona – Department of Pediatrics
- Sheila Sjolander-Arizona Department of Health Services
- Stacey Dawson-Indian Health Services
- Sue Smith-Department of Child Safety
- Velia Leybas Nuño-University of Arizona College of Public Health
- Venod L. Chulani-Phoenix Children's Hospital
- Yara Castro-Mariposa Community Health Center
- Jennifer Min-Arizona Family Health Partnership
- Priscilla Magrath-University of Arizona – College of Public Health
- Maureen Russell-Northern Arizona University- Institute for Human Development
- Tracy Predotti-Arizona Family Health Partnership
- Amber Rose-Waters-Dine College
- Erica Quintana-Arizona State University – Morrison Institute of Policy
- Nicole Yuan-University of Arizona – College of Public Health
- Anne Stafford-American Academy of Pediatrics – Arizona Chapter
- Mark Bauer-Dine College
- Michael Shayne Gallaway-US Public Health Service
- Lorraine Ramirez-Arizona Rural Women's Health Network
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- Alicia Thompson-El Rio Community Health Center
- Nicolette Teufelshone-Northern Arizona University
- Sydney Pettygrove-University of Arizona – College of Public Health
- Cori Daines-University of Arizona – Pediatric Pulmonary Center
- Jeanne Nizigiyimana-Valleywise Health-Refugee Women's Health Clinic
- Tracy Lopes-AZ House of Representatives
- Jennifer Carusetta-Health Systems Alliance of Arizona
- Brenda Thomas-Arizona Family Health Partnership
- Taryn Watson-Indian Health Service
- Kristen Tallis-
- Abidemi Okechukwu-University of Arizona – College of Public Health
- Margaret Perry-Pima County Health Department
- Andrea Ward-Pima County Health Department
- Kristen Tallis-Northern Arizona University
- Purnima Madhivanan-University of Arizona – College of Public Health
- Tiffany Archer-University of Arizona – College of Public Health

Key Values

1 **SERVICE**

We serve people in an environment of respect and understanding. We succeed through mutual participation, communication and cooperation. Our service is timely, accurate and consistent.

2 **PARTNERSHIPS**

We partner in an environment characterized by cooperation and shared knowledge.

3 **INTEGRITY**

Our relationships are based on honesty, respect, and mutual benefits.

4 **TEAMWORK**

Everyone works together to achieve goals that are guided by our vision.

5 **QUALITY**

We continually assess the effectiveness and efficiency or our processes and programs. Accurate documentation and measurement results in information that is factual, understandable, useful, and provides a basis for decision-making.

6 **DIVERSITY**

We recognize and respect the many assets that people of different ethnic, cultural, and social backgrounds contribute to our society. We value this diversity and will develop strategies that build on those assets.

7 **ACCOUNTABILITY**

We take ownership for our successes and our failures, realizing that by taking risks we are bound to fail at times, but it is only by taking risks that we make progress.

8 **FLEXIBILITY**

We anticipate change, adapt, and incorporate new experiences into our expanding base of skills and knowledge.

9 **COMMUNITY**

We value healthy, safe communities, so we fund programs that work, in areas where they are needed, in amounts that make a difference.

Overview of the State

Demographics, Geography and Economy

8th **in the nation for overall population growth**

As of 2019, the U.S. Census reported Arizona's population at an estimated 7,278,717. Arizona is one of the fastest growing and diverse states in the nation—eighth in the nation for overall population growth from 2010 to 2019 (13.9% growth), with an expected additional growth of 30% between 2018 and 2055. Geographically, Arizona is the 6th largest state in the nation with 113,594 square miles total area1, sharing a 389-mile international border with the states of Sonora and Baja California in Mexico.

46% **of the population belongs to a racial/ethnic minority group**

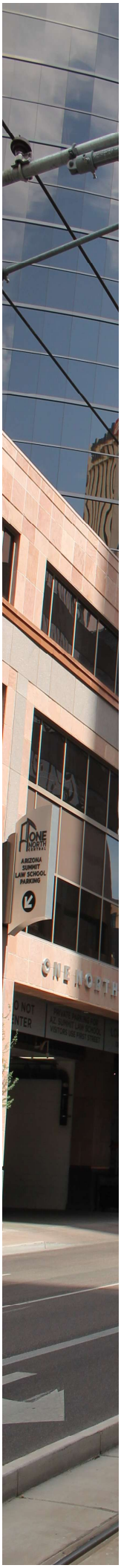
Approximately 46% of Arizona's population belongs to a racial or ethnic minority group. The racial and ethnic makeup of the state is different than the nation. In 2019, the proportion of the population that is Hispanic in Arizona was 31.7 percent compared to 18.5 percent nationally. In addition to having a higher proportion of Hispanics, Arizona's population also has a smaller proportion of African Americans (5.2 percent compared to 13.4 percent nationally) and a higher proportion of Native Americans (5.3 percent compared to 1.3 percent nationally).

>45% **of those younger than 5 are Hispanic**

The racial makeup of Arizona varies by age group. Among older age groups, the population is predominantly white, while the proportion of the population represented by Hispanics is highest among the younger groups. Over 45 percent of those younger than five are Hispanic compared to 11 percent of people 75 and older.

14th **highest poverty rate among children**

Poverty is a social determinant of health and a critical concern in Arizona. According to 2018 Kaiser Family Foundation estimates, Arizona has the country's 14th highest poverty rate overall among children. In a five-year estimate for 2014-2018, 16.1 percent of Arizonans lived in poverty—up from 14 percent in 2000, and higher than the current national poverty rate of 14.1 percent. Poverty varies dramatically by county within Arizona. The highest rates of poverty are in Apache and Navajo Counties with rates of 35.3 and 28.5 percent, respectively. The lowest rates are in Greenlee (11.9 percent), Yavapai (14.0 percent), Pinal (14.2 percent) and Maricopa (14.7 percent) Counties. The U.S. Department of Agriculture, Economic Research Service 2018 estimates show that poverty in rural Arizona (26.9%) far exceeded the rate in urban areas of the state (13.4%).



Demographics, Geography and Economy, Cont.

In addition to rural communities, poverty disproportionately impacts women and children. In Arizona in 2018, 22.8 percent of children under age 18, and 28.3 percent of those without a high school diploma, lived below the poverty line. Nearly 300,000 women live in poverty in Arizona. The Arizona Foundation for Women notes that this rate of poverty is related to women being more likely to be singularly responsible for children. Over a quarter of Arizona's families are single mothers with children under the age of 18 living at home, and 77 percent of these single mothers are eligible for but not receiving child support. Arizona has the seventh highest nonelderly adult female poverty rate in the country.

As children, Arizonans also face challenges. A 2019 America's Health Rankings report placed Arizona as the third worst state in the country for adverse childhood experiences (ACEs). Over 27% of Arizona's children experienced two or more ACEs last year, as compared to 20.5% of children nationally. ACEs include: abuse, such as sexual abuse, physical abuse or verbal abuse, and household dysfunction, such as drug use, violence between adults, and separation/divorce. ACEs are associated with negative impacts in adult life, such as poor health, heavy drinking, smoking, and depression.

The number of children living in foster care in Arizona hit a fifteen year high in 2016, and has been declining since then. The Children's Action Alliance reports that in March 2020, 14,167 children were in foster care.[11] In an independent review of the newly established Department of Child Safety, Chapin Hall reported that the increase in children in foster care was the result of an increase in abuse and neglect reports, especially since 2009; specifically, in a six year period, there was a 44 percent increase in reports. They note that this dramatic increase in abuse and neglect reports, along with a weakening of other safety net supports (such as child care subsidies) during a time of economic recession, put substantial strain on public welfare agencies. The Chapin Hall report also noted that Arizona, compared to other states, places more children in foster care following a substantiated allegation of maltreatment. All these factors place pressure on the foster care system and out-of-home placements have increased dramatically.

>25% **of families are single mothers with children under 18 at home**

7th **highest nonelderly adult female poverty rate**

3rd **worst state in the country for Adverse Childhood Experiences (ACEs)**

44% **increase in child abuse and neglect reports**

Demographics, Geography and Economy

48th **of 50 states in public per pupil spending**

30% **of 8th graders tested below basic skill level compared to 28% nationally**

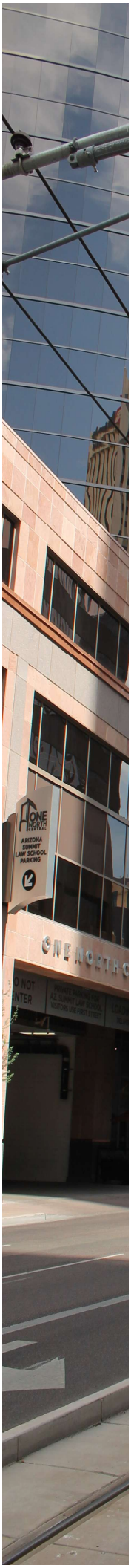
$ **median income in AZ is normally lower than national averages**

4.5 **to 5.0 is the normal rate of unemployment in AZ**

Arizona consistently ranks among the lowest in the nation in per pupil spending. The National Center for Education Statistics reported that Arizona spent $8,053 per student compared to the national average of $12,258 per student in fiscal year 2017. The U.S. Census ranked Arizona 48th of the 50 states and the District of Columbia in public per pupil spending in fiscal year 2018.[14] The National Assessment of Educational Progress (NAEP) is an assessment of what America's students know. In 2019, eighth grade students in Arizona public schools performed the same as 20 other states and jurisdictions, had higher performance than 5 states and jurisdictions, and were below 26 states and jurisdictions in NAEP reading scores. In 2019, 30 percent of Arizona eighth graders tested below basic skill level for their grade compared to the national rate of 28 percent. This was an increase in 5 percentage points from 2017.

Median household income in Arizona has historically tended to be lower than national averages. According to the U.S. Census, Arizona's median household income in 2018 was $56,213 compared to the national median income of $60,293. Median household income also varies widely by county and type of household. At $61,606, Maricopa County had the highest median household income; Apache County had the lowest at $32,963. Median household income also varies by type of household, with married couple families earning $79,677, families with children under 18 earning $61,784, and female-headed, single parent families earning $28,683.

In Arizona overall, unemployment was consistently in the 4.5 to 5.0 range from mid-2017 until March 2020 when it quickly spiked due to the emerging global pandemic. Arizona's unemployment rate reached a high of 13.4 in April 2020 with 473,766 unemployed, and has decreased to a rate of 10.0 in June 2020. Prior to the impacts from the pandemic, unemployment varied across the state of Arizona. In 2019, Greenlee and Maricopa Counties showed the lowest rates (3.9 and 4.0 respectively), while Yuma County suffered the largest percentage of unemployment (16.4).



Demographics, Geography and Economy, Cont.

In addition to individuals, poverty is calculated for families with children under the age of 18. In a five-year estimate for 2014-2018, 18.4 percent of families with children were below the poverty line in Arizona. This was 2.5 percentage points higher than the national average of 15.9 percent. Rates of poverty for families with children vary widely by ethnic background. The National Center for Children in Poverty reports that in Arizona in 2016, 12 and 13 percent of Asian and White children, respectively, live in a poor family compared to 45 percent of Native American children, 35 percent of Hispanic children, and 30 percent of Black children.

There is also wide variation in the proportion of households receiving assistance such as Supplemental Security Income, Cash Assistance, or Supplemental Nutrition Assistance Program (SNAP) (formerly the Food Stamp Program) in Arizona. The most recent American Community Survey data shows that in 2018, 11.8 percent of households in Arizona received SNAP assistance (or food stamps). The lowest is in Greenlee County at 7.6 percent, compared to a high of 25.6 and 27.3 percent in Apache and Santa Cruz Counties, respectively. Household food insecurity is often a consequence of poverty. The USDA definition of food insecurity can be paraphrased as: a limited or uncertain availability of food. Low food security is food insecurity without hunger. Very low food security is food insecurity with hunger. Food insecurity is similar but slightly higher in Arizona than in the United States as a whole and has increased in the past 10 years, notably between 2007 and 2008. In 2016-2018, 12.4 percent of Arizona households had limited or uncertain food availability and 5.1 percent of those were hungry.

18.4% of families with children were living below the poverty line (2014-2018)

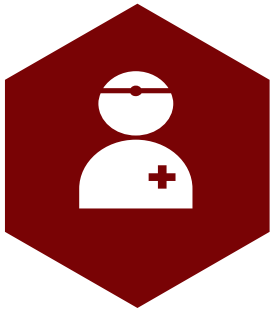
45% of Native American children live in a poor family

11.8% of households received food stamps in 2018

12.4% of households had limited or uncertain food availability (2014-2018)

Unique Strengths & Challenges

Arizona's unique geographical, cultural, and political climate impact women's and children's health status in a variety of ways.



Provider Shortages

Arizona experiences a shortage of medical providers for a variety of reasons. Large sparsely populated areas make distribution of providers difficult. Recruiting providers to rural areas is often challenging due to the appeal of higher salaries, school districts and community amenities that urban areas can offer. Even in urban areas, Arizona's healthcare workforce has not kept pace with the state's rapid population growth. These challenges are quantified by the total of 587 federally designated Health Professional Shortage Areas (HPSAs). This includes 201 primary care, 192 dental, and 194 mental health HPSA designations. There are also 36 Medically Underserved Areas and 11 Medically Underserved Population designations in the state. Arizona needs an additional 560 full-time primary care physicians, 380 dentists, and 181 psychiatrists statewide to eliminate the existing HPSAs.[23]

Lack of Health Insurance

As of August 2020, there are 2,041,990 enrollees in the Arizona Medicaid Program (AHCCCS) – an increase of over 150,000 in the past year. While the number of people without insurance fell in Arizona over the past couple years (from 19% in 2013 to 10.6% in 2018), it remains higher than the national average (8.9%) with about 749,977 people uninsured. Included in this number are 146,284 uninsured children and youth under the age of 19 (8.4%); this figure is substantially higher than the national average of 5.2 percent. While Arizona's percent of uninsured children has decreased from a high of 15 percent in 2008, decreases in uninsured children have not been as consistent as national changes.

Education Level

Education level can impact an individual's health literacy and self-efficacy in accessing health care. Nationally, 41.1 percent of adults aged 25 years and older with at least a high school education report their health is very good or excellent compared to only 22.8 percent with less than a high school education. With Arizona ranking in the bottom three nationally for high school graduation rates, this is a significant contributor to women's and children's overall health status.

Unique Strengths & Challenges, Cont.

Transportation

There are few major highways in Arizona, and the state's striking geographical features – including mountain ranges, valleys, canyons, and rivers – present significant barriers to transportation. The Phoenix-area metro transit system is very limited for an urban area of its size, and public transportation is nonexistent in rural areas of the state.

Outside of the Phoenix metro area, Arizona's population is dispersed among remote rural and frontier communities.[1] Arizona's population per square mile is just 56.3, compared to 87.4 nationally. These residents often have to endure long drives, sometimes over dirt roads, to access health care. Concerns over travelling through border patrol road checkpoints present additional barriers to some families.

Language & Culture

More than a quarter (27.2%) of Arizonans reported speaking a language other than English at home, compared to 21.5% nationally.[1] This rate is 79.7% in one Arizona/Mexico border county. Culturally and linguistically appropriate health care services are lacking in many communities in Arizona.

One unique aspect of Arizona's geographic and cultural landscape is its large American Indian population.[1] Arizona is home to 21 federally recognized American Indian tribes and has the largest total American Indian population of any state – over 385,000 individuals. In addition, the majority of the Navajo Nation, the largest reservation in the U.S., and the Tohono O'odham Nation, the second largest, are in Arizona. Over a quarter of the state is designated as reservation land. American Indians experience significant disparities compared to whites for many health indicators. The infant mortality rate among American Indians was 9.3 (per 1,000 live births) in 2018, as compared to 5.8 Arizona average, and post-neonatal mortality rate among American Indians was over double the state average (4.6 vs 2.1).

Unique Strengths & Challenges, Cont.

MCH Health Disparities

While infant and maternal outcomes are better than average overall in Arizona, this is not true across all populations within the state. The overall infant mortality rate is 5.6 (per 1,000 live births)—below the national average of 5.8—but this rate jumps to 9.2 for African Americans and 9.3 for American Indians within Arizona. Similarly,[10] while the percent of births that are low birthweight across all races in Arizona (7.5%) is lower than the national average, a much higher percentage (12.5%) of African American babies are born low birthweight.[1]

The Healthy Smiles Healthy Bodies Survey indicated that more than half (52%) of Arizona's kindergarten children have a history of tooth decay, higher than the national average for 5 year olds (36%), and almost two-of-three third grade children (64%) have a history of tooth decay compared to 52% of third grade children in the general U.S. population.

Arizona's vaccine coverage rates continue to decrease. Non-medical exemption rates—the percentage of students exempt from one or more vaccines—increased across all age categories. Arizona's percentage of 19- to 35-month-olds being adequately immunized has remained below our 90% target at 66.5%—ranking us 44th in the nation.

Women of color (Hispanic, Black, and Native Americans) are disproportionately affected by severe morbidity and mortality in Arizona. Like much of the country, Arizona's maternal mortality rate continues to increase. The latest maternal mortality rate for Arizona was estimated at 27.3 deaths per 100,000 live births. This ranks Arizona 29th in the nation (where rank of 1 is best). As we see with other MCH indicators, American Indian and African American women are disproportionately impacted by maternal mortality, with rates of 53.7 and 43.3, respectively.

Impact of COVID-19

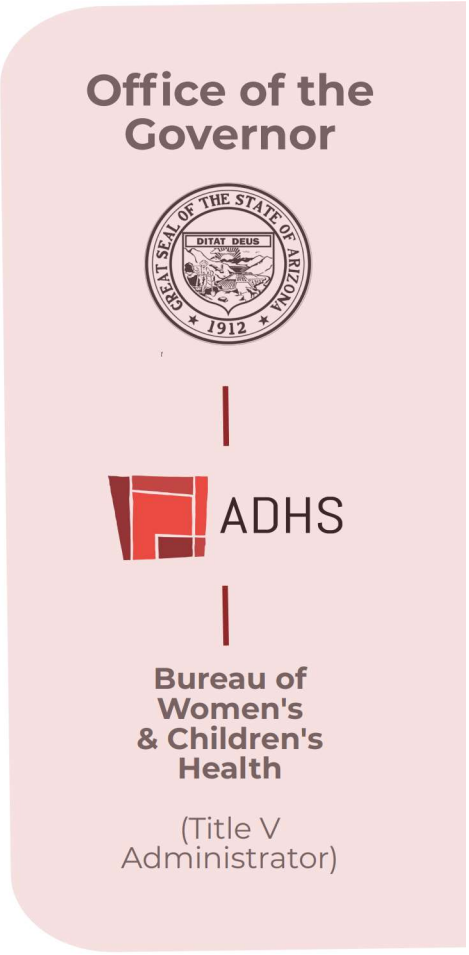
As in most places, public health—and life in general—has been impacted substantially by the COVID-19 global pandemic. As of August 28, 2020, there have been over 200,000 cases and nearly 5,000 deaths due to COVID-19 in Arizona. That is a rate of 2,791 cases per 100,000 population – currently the third highest rate among all states. In late June and early July, Arizona was an epicenter of the pandemic. Fortunately, the number of cases per day, hospitalizations, and percent positivity have been dropping steadily over the past month.

In Arizona, as we have seen across the nation, the COVID-19 pandemic has laid bare long-standing inequities in health outcomes and provision and shown us the true cost of our indifference to these disparities. In particular, there has been a disparate impact of COVID-19 deaths on the Navajo Nation and other tribal lands. The main contributing factors to this disproportionate impact are health care quality, accessibility, and cultural-relevance; infrastructure challenges (e.g., homes with no running water, multi-generational housing, etc.); and underlying health conditions (e.g., disparate burden). We have also seen a disparate burden of COVID-19 incidence and deaths among essential workers (e.g., health care workers, meat packers, prison guards, etc.) and the communities in which they live.

In addition, the COVID-19 pandemic created some emerging and unique public health issues for Arizona's MCH populations, apart from the immediate impact of the disease. For some women and children, the stay-at-home order meant that they were isolated with an abusive partner or caregiver, and there is emerging evidence to suggest that incidence of domestic violence may have risen during the pandemic. There is a concern that people have been deferring preventative and essential care during the pandemic. In Arizona, the immunization rate has gone down during the pandemic, and it is unclear whether parents will take their children in for their recommended vaccines once the epidemic abates. In addition, COVID-19 infections have been found to present differently in children than adults, with children experiencing a lower mortality rate but higher incidence of Kawasaki disease-like inflammation.

Roles, Responsibilities, and Targeted Interests of State Health Agency

The Arizona Department of Health Services (ADHS) is one of the executive agencies that report to the Governor. By statute it has been designated the Title V agency in Arizona. The Bureau of Women's and Children's Health (BWCH) is a component of the ADHS Public Health Prevention Services Division. The Chief of the Bureau of Women's and Children's Health serves as the Title V administrator and currently serves as the Director for both Maternal and Child Health and for Children with Special Health Care Needs. The Office of Children's Health oversees all programming for children and youth with special health care needs (CYSHCN).



ADHS adopted a five-year strategic map for 2018-2023. The Strategic Priorities for this plan are: Improve Health Outcomes; Promote and Support Public Health and Safety; Improve Public Health Infrastructure; Maximize Agency Effectiveness; and Implement the Arizona Health Improvement Plan.

In 2014, ADHS first conducted a **State Health Assessment (SHA)**, and an updated SHA was released in April 2019. ADHS used a variety of primary and secondary data sources to produce the analysis for this assessment, and input on the SHA was collected from many stakeholders including local health officers and tribal partners. The 2019 State Health Assessment is structured around the themes of Healthy People, Healthy Communities. ADHS focused on health outcomes across the lifespan, examining issues in Maternal and Infant Health, Child and Adolescent Health, Healthy Adults, and Healthy Aging. ADHS will use this assessment to set priorities and performance objectives for the next iteration of the **Arizona Health Improvement Plan (AzHIP),**which will be released in 2021.

The Title V program is responsible for tracking emerging issues and identifying how they affect the MCH population in Arizona. Prescription drug abuse and subsequent neonatal abstinence syndrome (NAS) are an ongoing challenge. In June 2017 Arizona Governor Doug Ducey declared the opioid crisis a public health emergency and in the three years since that declaration, there have been 6,857 opioid deaths, 49,753 opioid overdoses, and 2,188 babies born with NAS in Arizona.31 In the upcoming year, ADHS will be responsible for the development and implementation of four Governor Goal Council Breakthrough Projects – Adverse Childhood Experience & Trauma Informed Trained Agency, Sexually Transmitted Diseases, Immunizations, and Maternal Mortality. BWCH will be the lead on Maternal Mortality and have strong participation in the other Goal Council Projects.

Governor Goal Council Breakthrough Projects

1. Adverse Childhood Experience & Trauma Informed Trained Agency
2. Sexually Transmitted Diseases
3. Immunizations
4. Maternal Mortality

Components of State's System of Care

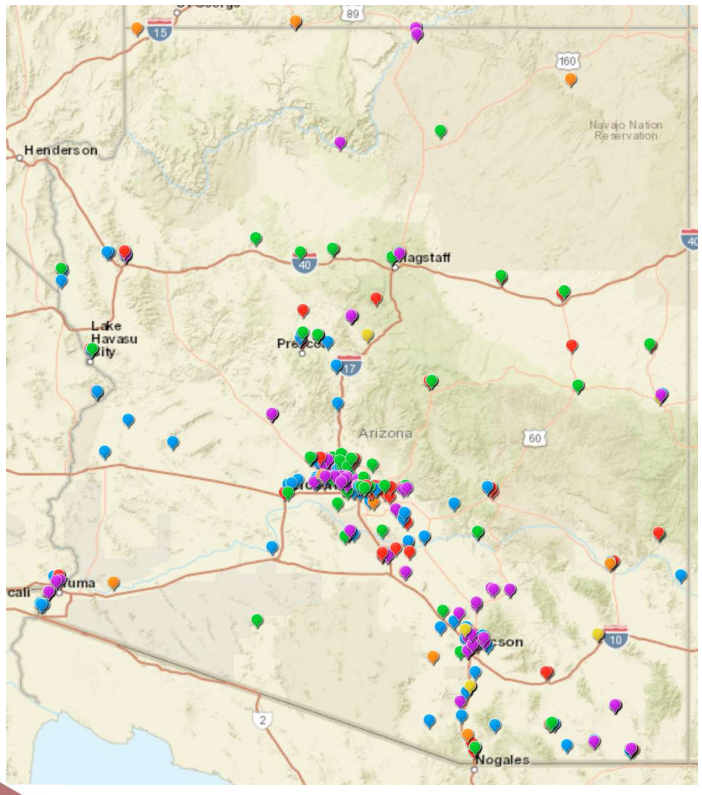
As described previously, Arizona has one of the highest poverty rates in the country. Among children within certain racial/ethnic groups in Arizona—including African American, Hispanic and Native American—59-74 percent live in low-income families. Thus, low-income families are one of the largest underserved populations in Arizona.

59-74%

of African American, Hispanic and Native American children in AZ live in low-income families

Arizona Health Care Cost Containment System (AHCCCS) is the state Medicaid program that aims to ensure access to health care for low-income individuals, and 22% of Arizona's population is covered by Medicaid. AHCCCS also offers medical treatment, rehabilitation, and related support services to qualifying children with special health care needs through the Arizona Children's Rehabilitative Services (CRS) program. Other sources of health insurance for Arizona residents include private via employer or non-group (49%), Medicare (16%), and other public coverage such as VA or military (1%). However, this leaves 11% of Arizona's population completely uninsured and vulnerable.

Map of current SFS clinics in Arizona



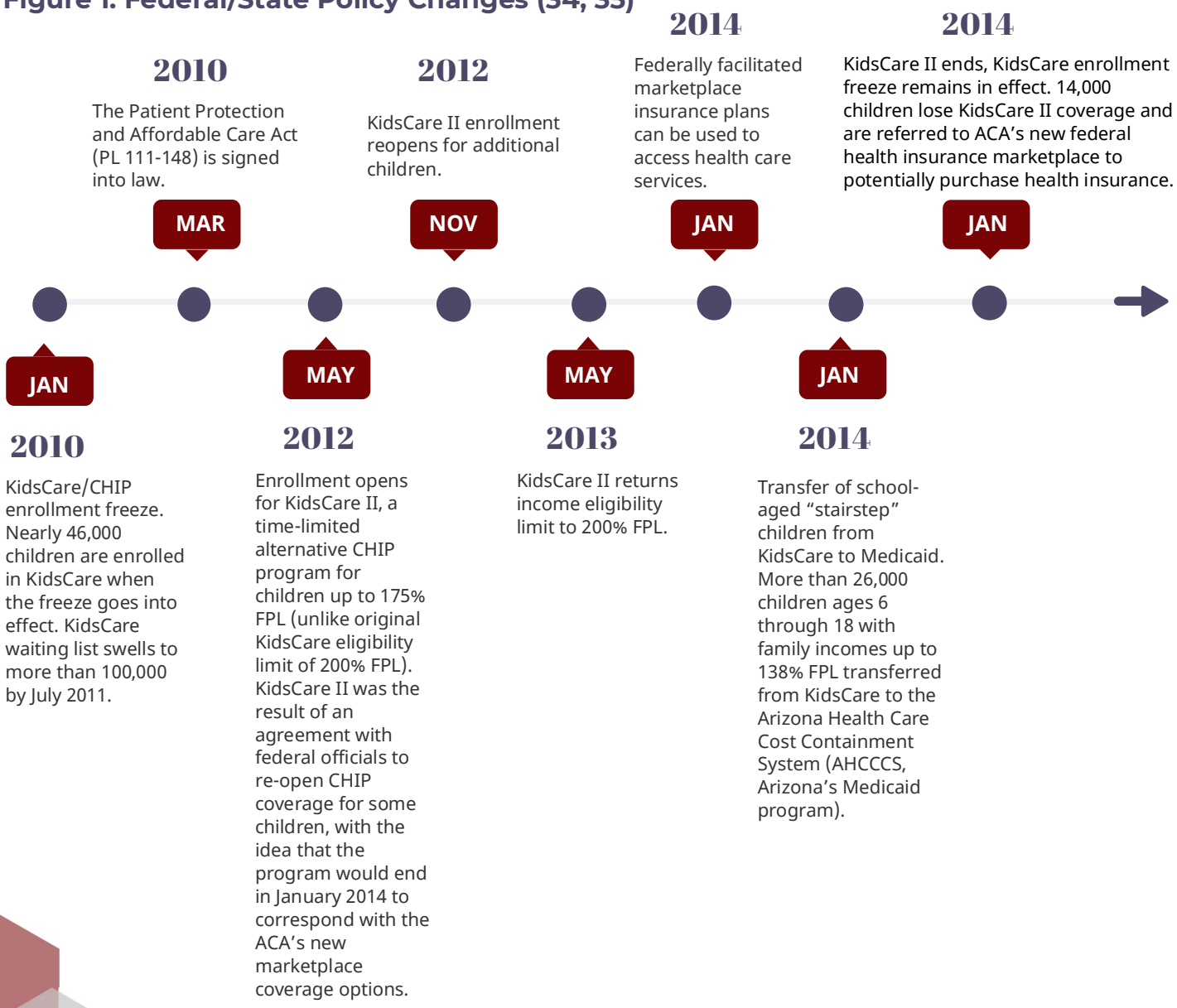
A strong infrastructure is in place within Arizona to improve access to preventive and primary health care for these vulnerable low income and uninsured populations through Title V subcontractors, Community Health Centers, and Rural Health Clinics. Sliding fee schedule (SFS) clinics are another critical resource in providing access to care to underserved populations. ADHS BWCH maintains, annually updates, and publishes a list of primary care, dental, and behavioral health providers in Arizona that offer a sliding fee schedule to under- or uninsured individuals. There are currently over 400 sites utilizing a sliding fee scale in Arizona that offer some combination of primary care, dental, and/or behavioral health services.

Arizona's system of care also includes a Level III Neonatal Care Center and wide variety of pediatric specialists through the Phoenix Children's Hospital, eight Level III Perinatal Care Centers, seven Level IIE Perinatal Care Centers, 15 Level II Perinatal Care Centers, and seven Level I Perinatal Care Centers. These hospitals offer not only critical health care for children and families, but also an opportunity for education. In fiscal year 2019 alone, 64,190 families of newborns left the hospital with tools to help them support their child's health and learning.

Components of State's System of Care, Cont.

Arizona's Children's Health Insurance Program (CHIP), or KidsCare, serves children in households earning too much to qualify for AHCCCS but earning under 200 percent of the federal poverty level (FPL). Over the last nine years, there have been a number of changes in federal and state policy affecting Arizona's CHIP program. **Figure 1** illustrates policy changes occurring within the past years that have directly impacted insurance status and access to care for children living in Arizona. Arizona was at risk for an automatic freeze on KidsCare if federal funding fell below 100%, but last year's state budget fully funded KidsCare and eliminated that legislative language that would have frozen the program as federal match requirements changed. This was a major public health win in Arizona's legislative session last year, securing health insurance coverage for more than 42,000 children.

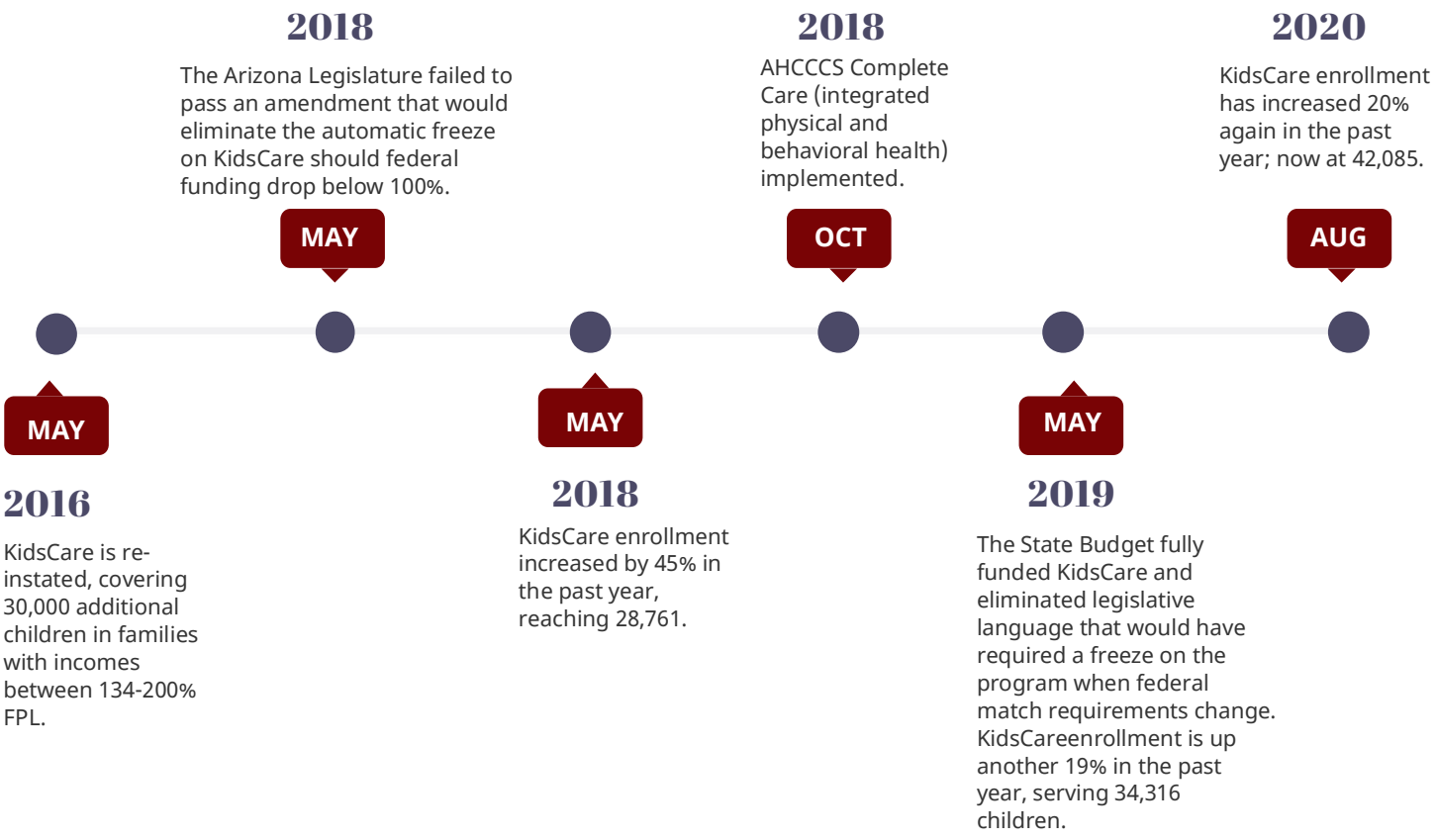
Figure 1: Federal/State Policy Changes (34, 35)



Components of State's System of Care, Cont.

On January 1, 2014, two policy changes impacting Medicaid eligibility for childless adults went into effect. The first policy change was the restoration of Proposition 204, extending eligibility to childless adults earning between 0 percent and 100 percent FPL. The second change was Arizona's expansion of Medicaid eligibility to include childless adults earning between 100 percent and 133 percent FPL. Proposition 204 eligibility had been frozen since 2011. Expanding coverage to the new adult group was an opportunity provided by the ACA and supported by then-Governor Janet Brewer.

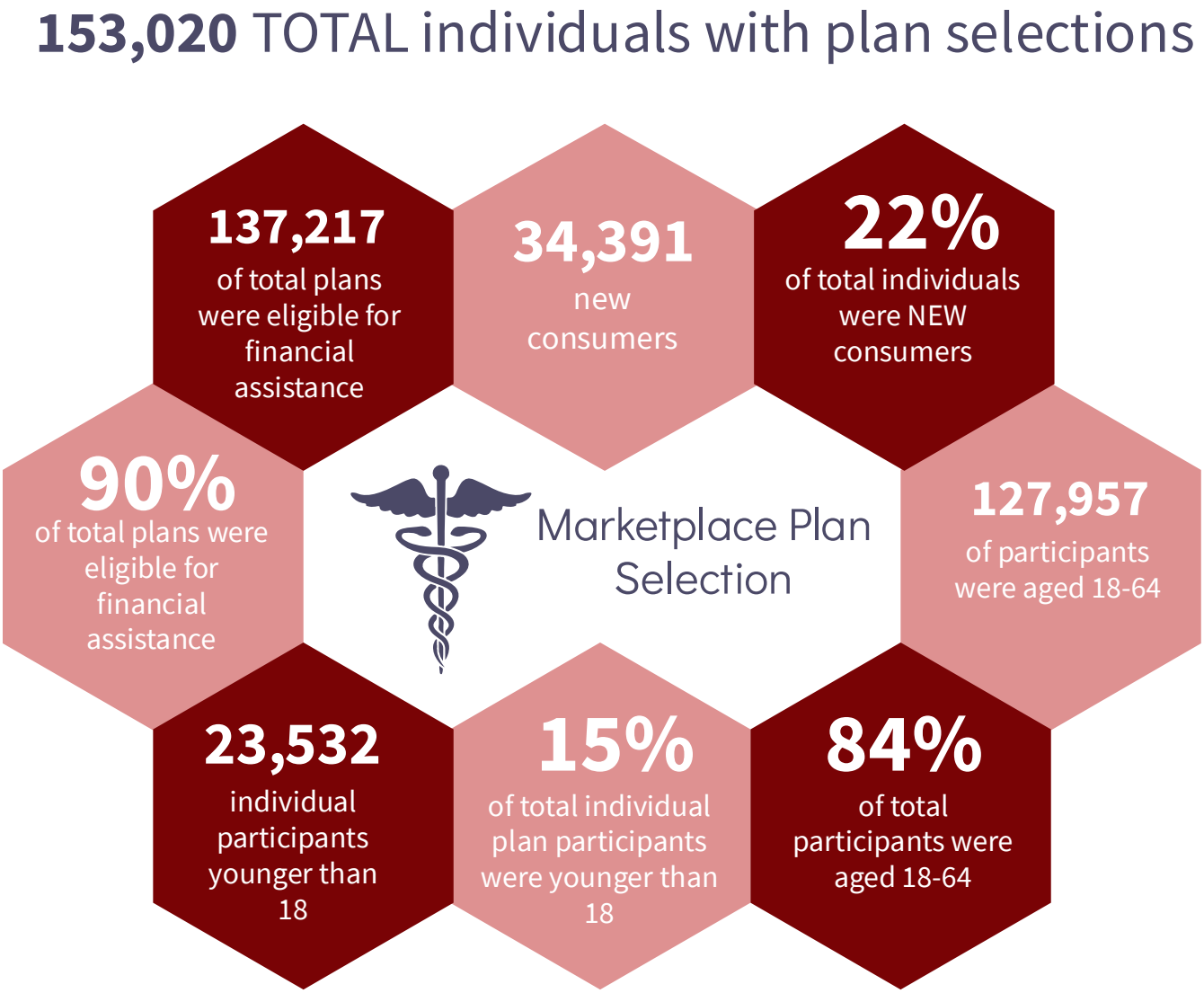
Figure 1: Federal/State Policy Changes, Cont.



With these policy changes, these eligibility programs provided Medicaid coverage for over 470,000 individuals in August 2020. With unemployment and economic hardship on the rise due to the COVID-19 pandemic, the number of Arizonans covered by the adult expansion program increased 35% in the past year.

Over the past decade, there was an overall 78% increase in SOBRA enrollments for eligible pregnant women. Amended under Title VI of the Sixth Omnibus Budget Reconciliation Act (SOBRA) of 1986, the Act gave states the option of extending coverage to women requiring pregnancy-related medical services beyond previously set income eligibility thresholds established by states. SOBRA enrollments for pregnant women decreased by about 2,000 (11%) in the past year. SOBRA services for children under the age of 18 also increased over 500% in the past decade, but stayed relatively steady over the past year.

Figure 2: Marketplace Plan Selection Characteristics - Arizona, Close of 2020 Open Enrollment Period. 37

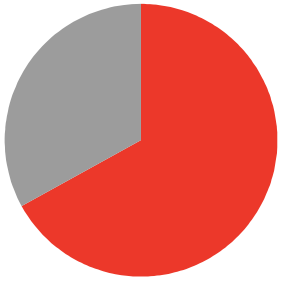


In summary, recent federal and state health policy changes have increased the number of Arizonans covered by insurance. Counting marketplace plan selections (153,020) with the Proposition 204 restoration population (368,091) and the childless adult expansion population (104,969), 626,080 additional Arizonans have health insurance who may not have had it prior to the policy changes being implemented. This increase in covered individuals has also lowered the percent of uninsured in Arizona from 19 percent in 2013 to 14 percent currently, not including effects of employer-based and other nonmarketplace/Medicaid insured populations.

Components of State's System of Care, Cont.

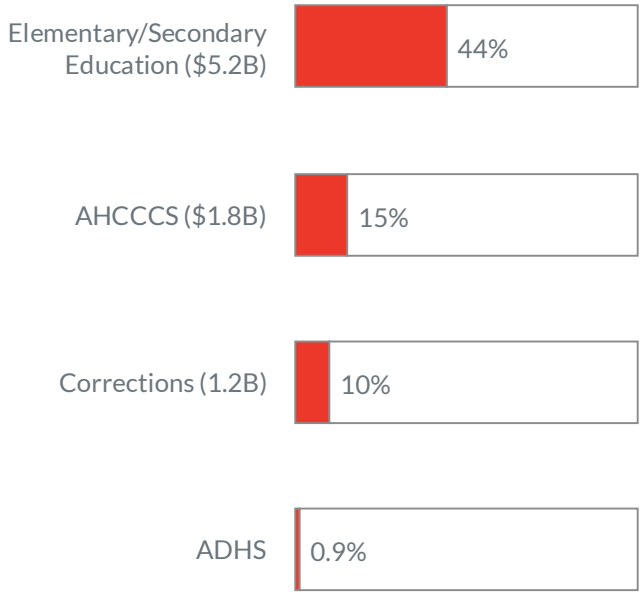
The efficiencies and benefits of integration of physical and behavioral health care has been an issue often discussed in Arizona over recent years, prompting AHCCCS to create a new integrated system of care called "AHCCCS Complete Care" (ACC). ACC began on October 1, 2018, joining physical and behavioral health care services together to treat all aspects of members' health care needs under one chosen health plan. Improved coordination between providers within the same network is expected to result in better health outcomes for AHCCCS members.

Over two-thirds of the nearly $11.8 billion Arizona budget for 2021 is for K-12 education, AHCCCS, and the Department of Corrections. Forty-four (44) percent of the general fund goes to elementary and secondary education (approximately $5.2B), about 15 percent for AHCCCS (approximately $1.8B), and about 10 percent for corrections (approximately $1.2B). ADHS receives less than one percent of the general fund expenditures ($97M).



2/3rds of the nearly $11.8 billion Arizona budget for 2021 is for K-12 education, AHCCCS and the Department of Corrections

The 2020 Arizona Legislative Session lasted for 135 days, but was suspended for nearly half of that time due to the COVID-19 pandemic. This session was a unique one—with more bills introduced than ever before, but also the fewest number of bills signed into law in history. There were a couple of successful bills that will improve public health, particularly behavioral health. One increases suicide prevention training for school counselors and social workers and mandates provision of information related to mental health resources to students. The other is a mental health parity bill to expand access to mental health care services.



Relevant Statutes

There are several Arizona statutes that impact and support MCH and CYSHCN programs. Arizona Revised Statute (A.R.S. 36-691) formally accepts Title V and designates ADHS as the Title V agency accepting the conditions of Title V of the Social Security Act, entitled "grants to states for maternal and child welfare," enacted August 14, 1935, and as amended.

Additional state statutes authorize a number of MCH programs or functions not specific to Title V. The statutory list of functions (A.R.S. 36-132) of ADHS includes: encourage and aid in coordinating local programs concerning maternal and child health, including midwifery, antepartum, and postpartum care; infant and preschool health and the health of school children, including special fields such as the prevention of blindness and conservation of sight and hearing; and encourage, administer, and provide dental health care services and aid in coordinating local programs concerning dental public health, in cooperation with the Arizona Dental Association. Subject to the availability of monies, develop and administer programs in perinatal health care. Some of these programs are managed outside of the Bureau of Women's and Children's Health (BWCH); in those instances, BWCH staff remain involved by coordinating closely with agency colleagues.

Amended rules (R9-101-117), effective July 1, 2014, were adopted for the licensing of lay midwives in Arizona. The new rules include a change to the scope of practice to include the delivery of frank breech and vaginal delivery after caesarean section under certain prescribed circumstances. The rule changes also add clear requirements for reporting, transfer of care, and emergency action plans. Title V leadership was involved in the rulemaking process.

State statute (A.R.S. 36-697) authorized the Health Start program, administered by BWCH. The program, serving pregnant women, children and their families, is required to be statewide, based in identified neighborhoods, and delivered by lay health workers through pre-scheduled home visits or group classes that begin before the child's birth or during the postnatal period and may continue until the child is two years of age.

Lay health workers, or Community Health Workers (CHWs), will soon have the opportunity to apply for voluntary certification through ADHS. Bill H2324 was passed in the 2018 Arizona Legislative Session requiring ADHS to adopt rules prescribing the scope of practice, minimum qualification, education and training standards, and criteria for certification of community health workers. A nine-member Community Health Workers Advisory Council was established and is currently working through this rule-making process.

BWCH also manages the Oral Health Fund established by A.R.S. 36-138. Funds received as reimbursement from the state's Medicaid program contractors for dental services provided by BWCH are put into the Oral Health Fund, which is then used to fund additional dental health services. Additionally, Bill H2235 was passed in the 2018 Legislative Session requiring ADHS, in consultation with the Board of Dental Examiners, to conduct a study by December 31, 2023 on the impact of licensing Dental Therapists on patient safety, cost effectiveness and access to dental services in Arizona.

State statute (A.R.S. 36-899.01) also requires ADHS, through BWCH, to administer a program of hearing evaluation services to all school-aged children. Vision screening legislation (SB1456) was passed on August 17, 2019. This bill requires vision screening of children in Arizona upon initial entry to school as well as not more than two additional grade levels in a district or charter school that provides preschool and/or K-12 instruction. The vision screening law is

Title V (A.R.S. 36-691)

ADHS Functions (A.R.S. 36-132)

Licensing Lay Midwives (R9-101-117)

Health Start Program (A.R.S. 36-697)

Community Health Workers (Bill H2324)

Oral Health Fund (A.R.S. 36-138)

Impact of licensing Dental Therapists (Bill H2235)

Relevant Statutes, Cont.

now officially in the Arizona Revised Statutes and can be found at: ARS §36-899.10. Official rulemaking for vision screening has not yet been established under A.R.S. 36-899.10. The timeline for rulemaking is on hold at this time due to COVI-19. The ADHS Sensory Screening Program is committed to developing screening rules that follow national guidelines, which will support early detection and intervention of children with vision impairments. Until the rules are completed and approved, there are no official requirements in place for vision screening regarding training, screening, and reporting of data to ADHS.

The Child Fatality Review Program, authorized by state statute (A.R.S. 36-3501), requires the State Child Fatality Review Team to conduct an annual statistical report on the incidence and causes of child fatalities and submit a copy of this report, including its recommendations for action, to the Governor and legislative leadership on or before November 15 of each year. This report also includes recommendations from the committee for the public. The Program is housed in the BWCH and the Bureau Chief is a legislatively required member of the State Team.

The Arizona Revised Statute (A.R.S. § 36-3501) was amended in April 2011 to establish the Arizona Maternal Mortality Review Committee (MMRC) as a subcommittee to the Child Fatality Review (CFR) Program. Though unfunded, Arizona Maternal Mortality Review Program (MMRP) has convened an MMRC since June 2012 to review all identified maternal deaths in the State. In 2019, ADHS was officially awarded $450,000 per year for five years from the Centers for Disease Control and Prevention's Preventing Maternal Deaths: Supporting Maternal Mortality Reviews grant. ADHS is using this funding to strengthen the current structure and data collection processes of the Arizona MMRC and to build a just, strong, sustainable and focused effort to systematically increase access, quality of care and overall health for all women in Arizona. MMRP details can be found in the 2019 Women's Health Report of this application.

During the 2015 legislative session the Governor signed into law HB 2643, which prohibits the state and its political subdivisions from using any personnel or financial resources to enforce, administer, or cooperate with the Affordable Care Act (ACA) in many ways with the exception of public health prevention programs.

Senate Bill 1040 was passed into law during the 2019 legislative session and is repealed on July 1, 2021. The bill establishes an advisory committee on maternal fatalities and morbidity and dictates the advisory committee composition. The primary role of the advisory committee is to recommend improvements to data collection regarding the incidence and causes of maternal fatalities and severe maternal morbidity. The statute also directs the advisory committee to submit two reports to the House of Representatives, Senate and the Governor's Office. The first report was due and submitted in December 2019 with recommendations regarding improvements on data collection. The second and final report was submitted December 2020 and provides an account on the incidence and causes of maternal fatalities and morbidity for 2016–2018.

Senate Bill 1040 delegated authority to the Arizona Department of Health Services Director to designate a chair and appoint the committee members. The Arizona MCH Director served as the Committee Chair and the MCH program staff provided data analysis for the committee.

Hearing Screening at School (A.R.S. 36-899.01)

Vision Screening at School (A.R.S. 36-899.01)

Child Fatality Review Program (A.R.S. 36-3501)

Maternal Mortality Review Committee (A.R.S. 36-3501)

ACA Limitations (HB 2643)

Maternal Fatalities & Morbidities Advisory Committee (SB 1040)

ADHS designate a chair & appoint committee members (SB 1040)

Coordination with other Statewide Assessments

TABLE 1: MIECHV NEEDS ASSESSMENT AND ARIZONA COMMUNITIES AT RISK

The 2020 Arizona Needs Assessment for the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program was planned in conjunction with the Title V MCH Needs Assessment. The assessment identified key 'communities of risk,' which helped ADHS better understand which areas of the state may benefit most from public health programming to improve maternal and child health outcomes. The methodology for that assessment can be found in the MIECHV 2020 Needs Assessment Report. By combining the current community risk with the data that is collected by ADHS regarding quality and capacity of programs, this updated needs assessment has provided the opportunity to reflect on distribution of services throughout the state and determine whether changes to current practice and program offerings are needed to meet the current needs of Arizona families.

Risk data was standardized and combined to assign risk scores to primary care areas. The primary care area geography was updated in 2013, making it the most updated geography reflecting current population and demographics for the Arizona Department of Health Services to utilize.

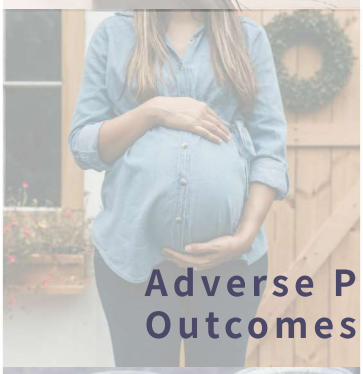
HRSA defined risk based on a number of characteristics of a community. Arizona adapted HRSA methodology to meet the State's needs. Table 4 illustrates these domains and the metrics that fall under each.

Coordination with other Statewide Assessments

| TABLE 1: MIECHV NEEDS ASSESSMENT AND ARIZONA COMMUNITIES AT RISK, Cont.

Socioeconomic status domain

- **Poverty:** Percent of the population living below the federal poverty line
- **Unemployment:** Unemployed percent of the labor force
- **High school dropout rates:** Percent of students grades 7-12 that dropped out of school
- **Income inequality:** Gini coefficient



Adverse Prenatal Outcomes

- **Preterm birth:** Percent live births before 37 weeks gestation
- **Low birthweight:** Perfect live births with baby weight less than 2,500 grams
- **Infant mortality:** Infant death rate per 100 live births
- **No prenatal care:** Percent of Arizona Health Care Cost Containment System (AHCCCS, Arizona's Medicaid agency) live births with no prenatal care

Substance Use Disorder

- **Alcohol:** Number of alcohol-related hospital discharges per 100 people in a primary care area
- **Marijuana:** Number of marijuana-related hospital discharges per 100 people in a primary care area
- **Illicit drugs:** Number of illicit drug related hospital discharges per 100 people in a primary care area
- **Opioids:** Number of opioid-related hospital discharges per 100 people in a primary care area

Crime

- **Crime:** Crime index for each primary care area
- **Domestic Violence:** Number of domestic violence-related hospital discharges per 100 people in a primary care area

Child Maltreatment

- **Child maltreatment:** Number of unique child removals per 100 children aged 0 to 18 in a primary care area

The maps below (Figure 3 and Figure 4) show all primary care areas in the state and their risk scores, which were calculated using the 15 indicators across five domains shown in Table 1. above. Risks scores are on a scale of 0 to 4, with zero being lowest risk and four being highest risk.

Figure 3. All primary care areas in Arizona and their risk scores (0=low; 4=high)

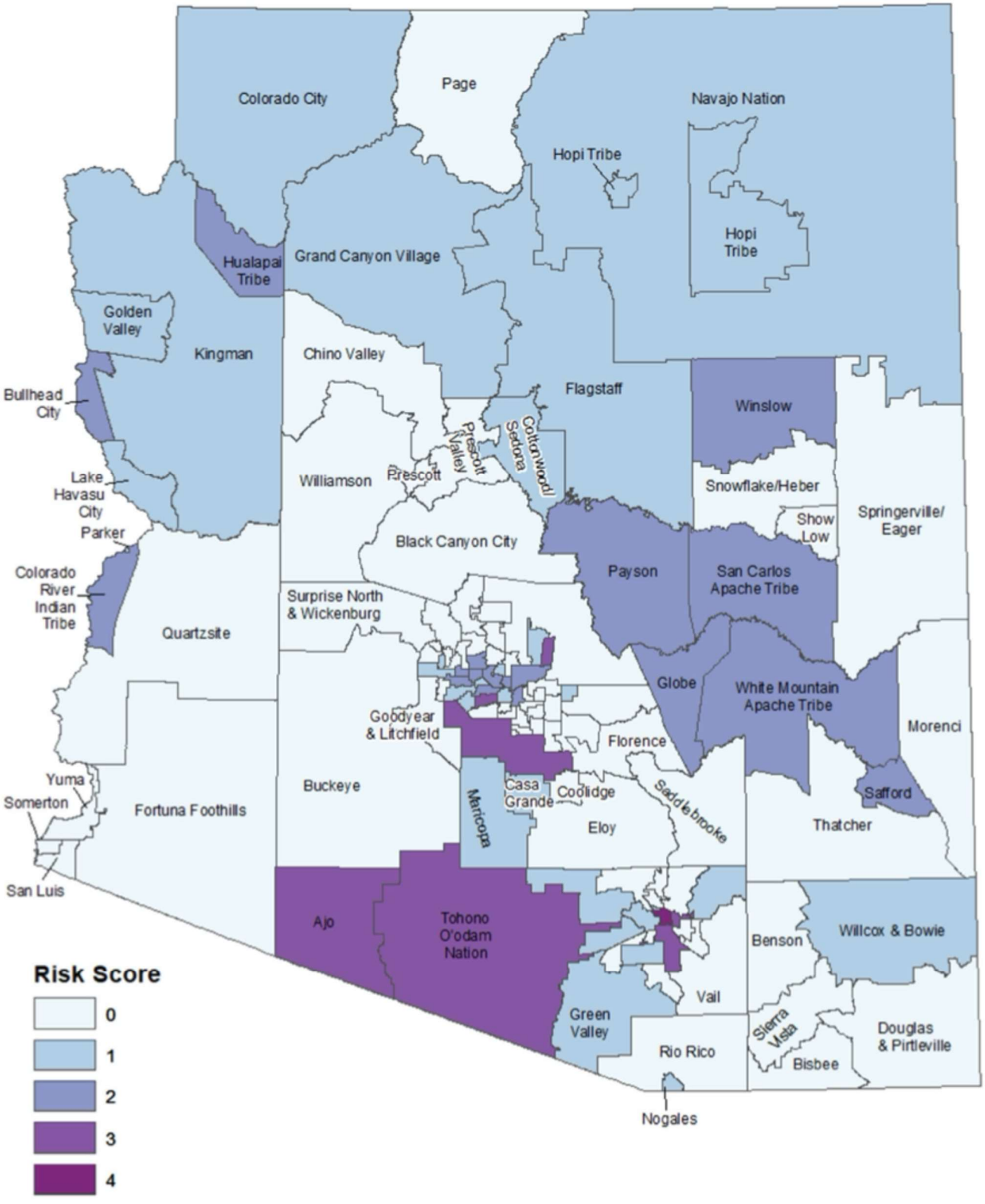
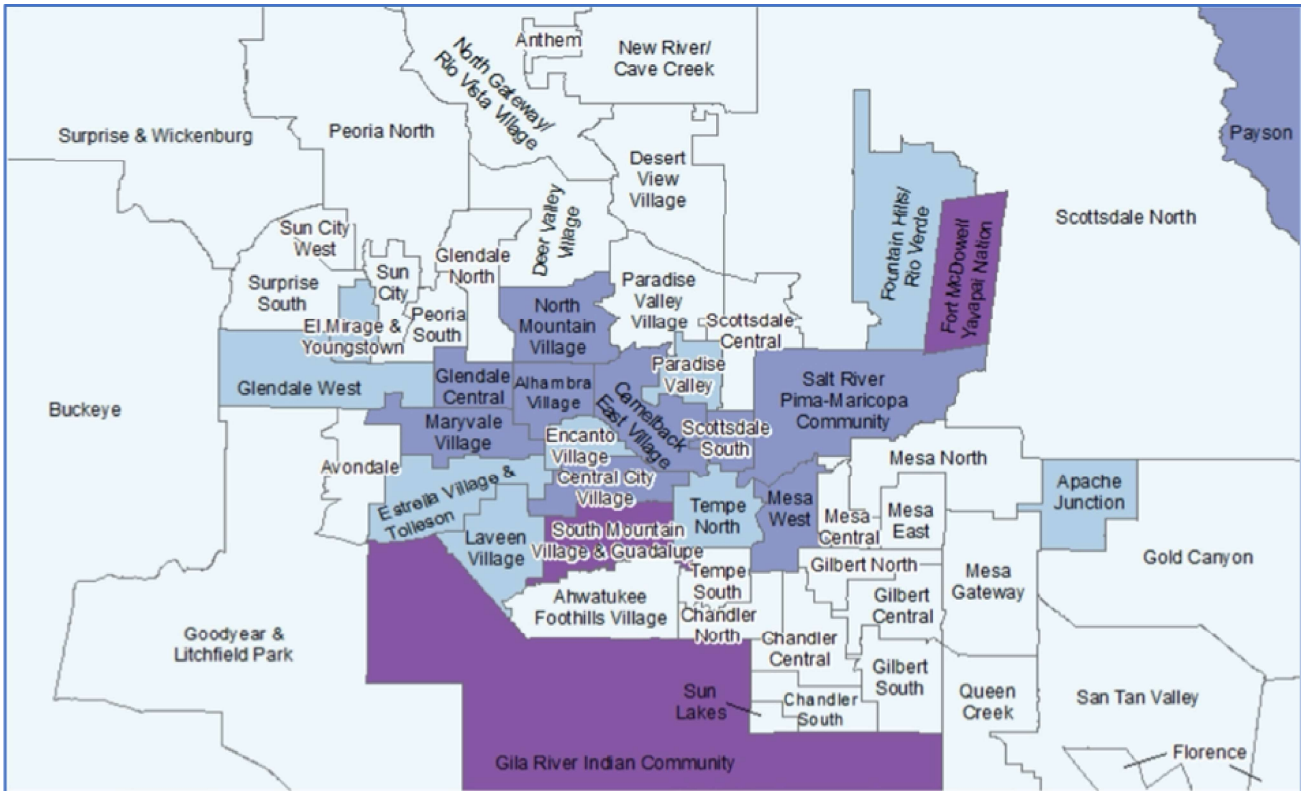


Figure 4. All primary care areas in Central Phoenix and Tucson and their risk scores (0=low; 4=high)



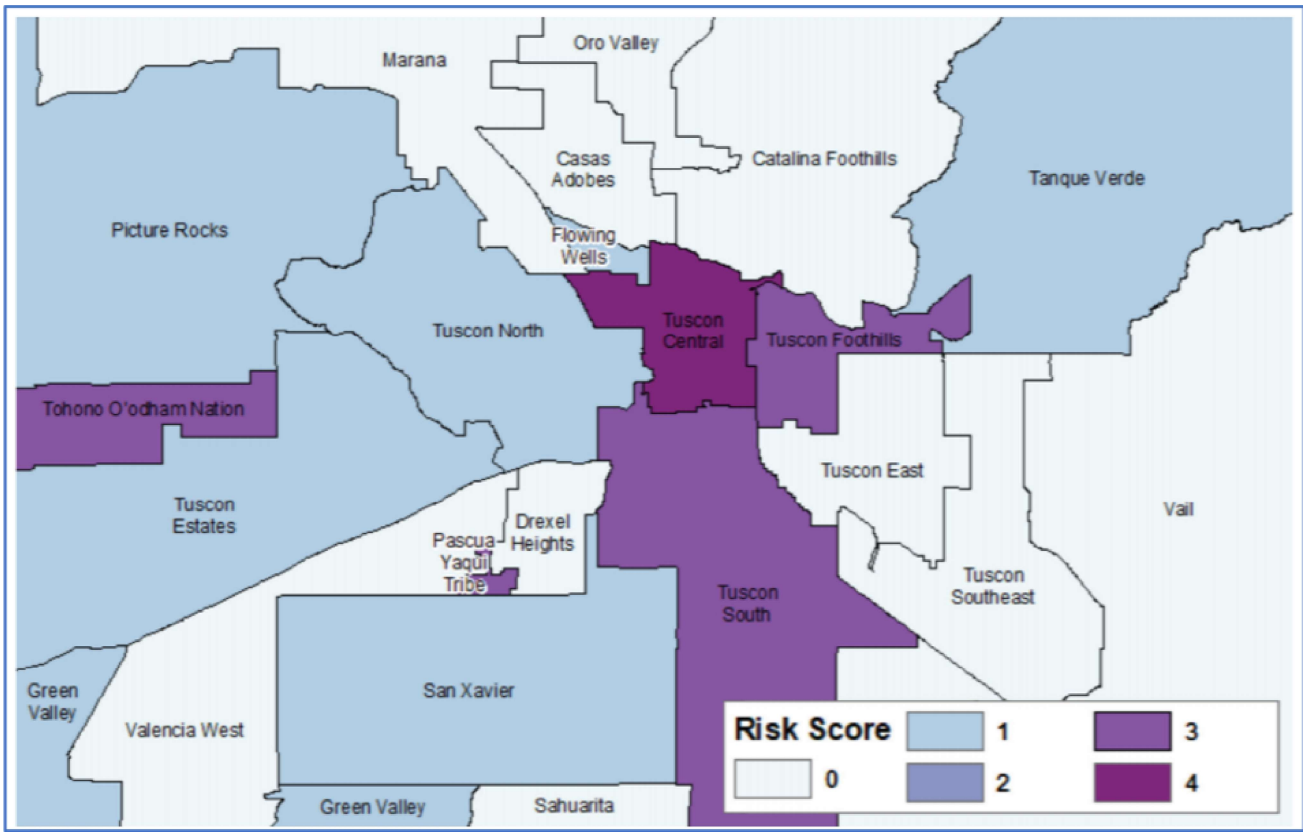


Figure 5 lists the Arizona communities identified as 'at-risk' in the 2020 MIECHV Needs Assessment.

Figure 5. Primary Care Areas Identified as At-Risk in 2020

The results of the risk assessment align with the results of other needs assessments and reflect the risk in the state. Many of the communities identified as being at-risk are in Maricopa and Pima counties, which encompass the Phoenix and Tucson metropolitan areas, respectively. For example, South Mountain/Guadalupe, Maryvale, and Central City Phoenix in Maricopa County all have community initiatives focused on improving the lives of the people in those communities. This MIECHV needs assessment found that Pima County has many communities with high levels of need.

Additionally, this current MIECHV needs assessment found that nine out of 22 tribal nations in Arizona have high levels of risk. This aligns with many reports showing that Native American children and youth are at higher risk of suicide and are not being supported to reach their health and educational potential across a number of areas For example, Native American children experience the highest rates of poverty compared to children of other demographics, Native American teenagers have the highest rate of suicide compared to other demographics, and Native American teenagers have the lowest graduation rate in the state compared to other demographics.

Some communities in Mohave County were identified through this assessment as being at-risk. The AHCCCS substance abuse needs assessment also identified Mohave County as an area that needed more targeted supports as it saw the greatest increase in drug-induced mortality rates from 2006-2016.

Other Statewide Assessments

The Title V MCH Needs Assessment leveraged other needs assessments that were concurrently taking place at the same time (2018–2020). As part of the Title V Needs Assessment framework, considerable strategies were designed and implemented to triangulate and share findings (as much as it was feasible) not only within the agency but with other governmental entities as well. Below is the list of the major assessments that were part of these intra-agency collaborations.

Table 2. Major Statewide Assessments, Arizona (2018–2020)

Assessment Report	Agency/Program	Description
State Health Assessment	ADHS	The State Health Assessment is used to examine key health indicators and provide a comprehensive overview of the health of Arizonans. This data-driven approach is designed to produce and evaluate a variety of factors contributing to health outcomes, including direct measures of population health as well as measures of social determinants of health that play a significant role in the overall health of our residents. It is an activity that is part of the agency's public health accreditation
MIECHV Needs Assessment	ADHS Office of Children's Health	Arizona conducted a Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Needs Assessment to satisfy the requirements of Section 50601 of the Bipartisan Budget Act of 2018 (Pub. L. 115-123), which requires each state to conduct a statewide Maternal, Infant, and Early Childhood Home Visiting Needs Assessment as a condition of receiving payments from an allotment for the state.
Oral Health Study	ADHS Office of Oral Health	Aimed to assess the current oral health status of Arizona's elementary school children, the Arizona Department of Health Services, with support from First Things First, coordinated a statewide oral health survey of kindergarten and third grade children attending Arizona's public schools.
Arizona's Early Childhood Opportunities 2019 Report	FIRST THINGS FIRST	A biennial assessment of Arizona's children, birth to 5 years old, which serves as a resource for anyone seeking to better understand our children's challenges and opportunities

Other Statewide Assessments, Cont.

Table 2. Major Statewide Assessments, Arizona (2018–2020)

Assessment Report	Agency/Program	Description
Substance Abuse Prevention Needs Assessment	AHCCCS Arizona Health Care Cost Containment System	A comprehensive statewide prevention needs assessment to better understand the current substance use prevention activities occurring in Arizona, as well as identify the totality of the State's prevention needs.
Child and Family Services Annual Progress and Services Report	Department of Child Safety	Annual progress and services report on the activities of the Department including data on child abuse and neglect investigations; child safety assessments; family support, preservation, and reunification services; family foster care and kinship care services; services to promote the safety, permanence, and well-being of children with foster and adoptive families; adoption promotion and support services; and health care services for children in out-of-home care
SB1040 Report on Maternal Fatalities and Morbidities	ADHS Office of Assessment and Evaluation	Report provides a comprehensive summary of all maternal mortality occurring between 2016-2017 and severe maternal morbidity between 2016 - 2019 occurring in Arizona
Annual Child Fatality Review Program Report	ADHS Office of Assessment and Evaluation	This report provides a comprehensive review of fatalities occurring in Arizona among children less than 18 years of age.

The Title V MCH Needs Assessment either contributed to or benefited from work and data to support all of the above-mentioned assessments through collaborations that were at the initiative in the assessment's steering committee as part of its framework and guiding principles.

Assessment Framework and Guiding Principles

Assessment Goal and Framework

The primary goal of this statewide needs assessment was to identify the priority health needs and issues of Arizona's maternal and child health populations through a collaborative and systematic data collection and analytic processes. Prior to designing the needs assessment, it was important that overarching principles and values be clarified so that there would be a common level of understanding and support for the needs assessment and its various data collection activities. The assessment team referred to older needs assessments and identified overarching principles to transfer into this new assessment. These overarching principles and values are:

1. Listen to those who are not traditionally involved.
2. Learn from community members as well as the maternal and child health community
3. Honor and respect the work that others in the community and state had done in previous years to assess the well-being of Arizona's people.
4. Assess health disparities across communities not only by racial group but also socioeconomic and access status.
5. Use a life course development approach and address the social determinants of health as a framework for health planning.
6. Recognize that social, political, and economic policies and conditions determine health outcomes.
7. Value the community as a core partner in public health and work to assure the equity in health is a reality.
8. Plan, develop, and evaluate programs and systems of care, which are comprehensive, community-based, culturally competent, coordinated, and effective.

Assessment Framework and Guiding Principles

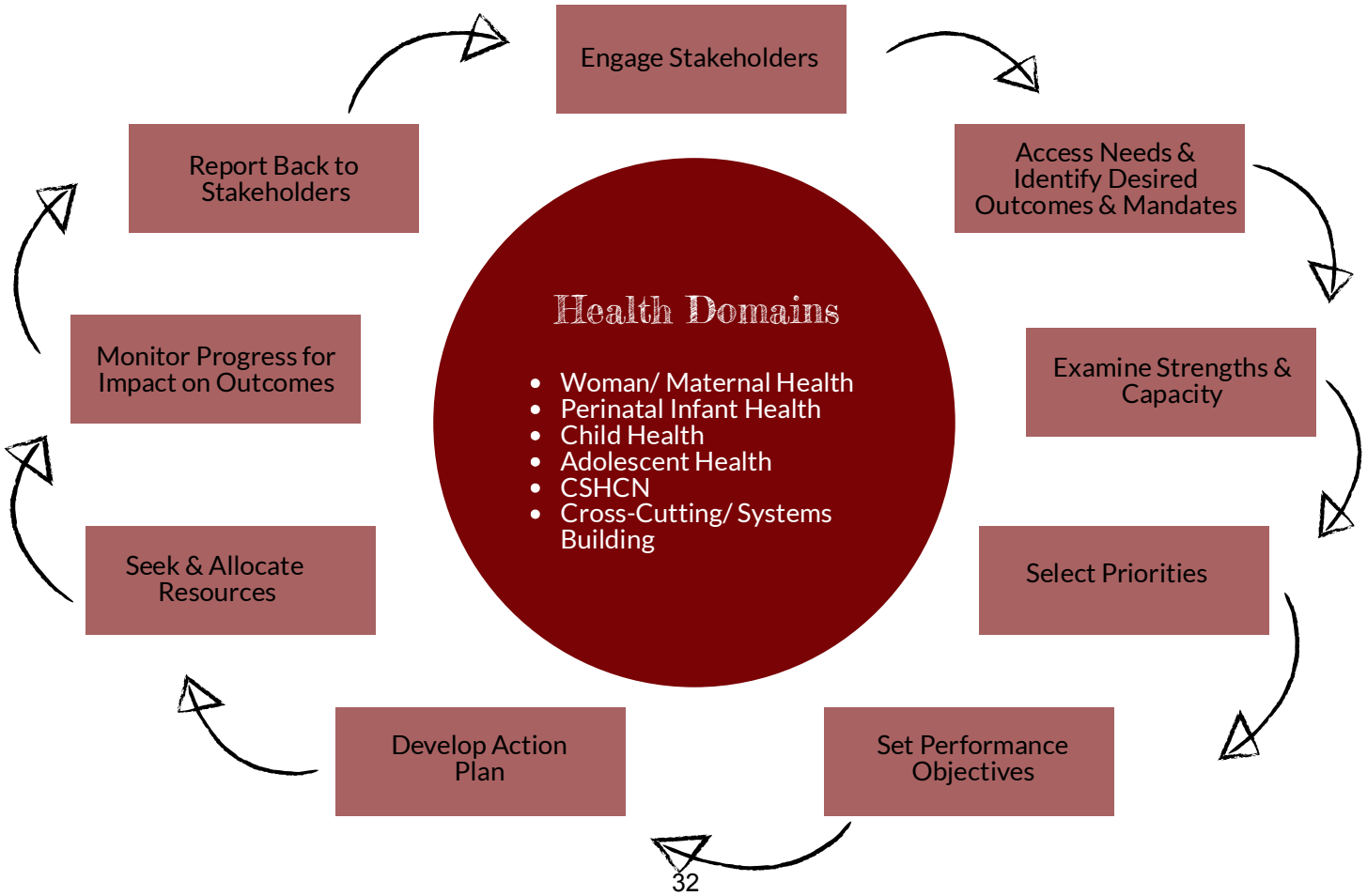
Assessment Goal and Framework, Cont.

In addition to the principles and values, the assessment was also guided by the Agency's and Bureau's vision and mission. ADHS' mission is "to promote, protect, and improve the health and wellness of individuals and communities in Arizona." The Agency's vision is "Health and Wellness for all Arizonans." The Bureau's vision is "Healthy Women, Healthy Children, Healthy Tomorrow." The Bureau's mission is "to strengthen the family and community by promoting and improving the health and safety of women and children."

The assessment reviewed a variety of sources and examples from other states to identify the best possible methodologies to use in this new needs assessment. Based on previous examples, it was clear that a mixed approach would be the best option for Arizona. All needs assessment methodologies were reviewed by the steering committee. The needs assessment implementation team collected feedback from the steering committee and incorporated it into the assessment's methodologies, data collection tools, and published products. Arizona's assessment is comprehensive and includes seven distinct approaches, consisting of quantitative and qualitative methodologies, to capture preventive and primary care needs for our maternal and child health populations.

The process was designed to be consistent with HRSA's conceptual framework, State Title V MCH Program: Needs Assessment, Planning, Implementation, and Monitoring Process. Figure 6. illustrates the steps in this cyclical process.

Figure 6. State MCH Block Grant Needs Assessment Planning, Implementation and Monitoring Process Diagram



Assessment Framework and Guiding Principles

Assessment Goal and Framework, Cont.

Planning and design of the 2020 Needs Assessment began in March 2018. Data collection commenced in June of that year, and data analysis was conducted from January 2019 to May 2020. **Figure 7.** provides a timeline of the Needs Assessment process, from design through dissemination.

Figure 7. 2020 Needs Assessment Timeline

Leadership and Implementation Team

This iteration of the needs assessment involved a large number of internal and external stakeholders. The Office Chief for Assessment and Evaluation led the assessment, in close collaboration with the Arizona's Title V Director and Title V Block Grant Program Manager as co-leads. He served as the lead investigator in the project, coordinated all the data collection activities across the state, organized the various steering committee meetings, and managed the activities of the implementation team. The Title V Block Grant Program Manager's role was to participate in the implementation team meetings, provide feedback and oversight on established contracts with University of Arizona, Inter Tribal Council of Arizona, and Diné College. The Title V Director provided guidance and identified resources that the assessment may need to conduct an activity or meet a milestone. The Title V Director participated in all steering committee meetings and promoted all of the data collection activities with partners and stakeholders.

The implementation team's role was to implement all the activities planned for the Title V MCH Needs Assessment. This included tasks such as designing and validating data collection tools; acquiring the necessary human subjects review board approvals; collecting data; analyzing and reporting out findings, including the development of this report. The implementation team included maternal and child health epidemiologists from BWCH; the State Systems Development Initiative (SSDI) Program Epidemiologist housed in the Bureau of Public Health Statistics; the University of Arizona's Mel and Enid Zuckerman College of Public Health; the Tribal Epidemiology Center at the Inter Tribal Council of Arizona; and the Diné College/Navajo Nation Epidemiology Center. The Inter Tribal Council of Arizona, Diné College/Navajo Nation Epidemiology Center, and the University of Arizona all had implementation teams of their own. ADHS provided guidance and advice on their respective assessments to ensure that all data collection activities were in alignment with the overall assessment. **Figure 8** shows the needs assessment leadership structure.

Title V Needs Assessment Steering Committee

A list of the member agencies and organizations is provided below:

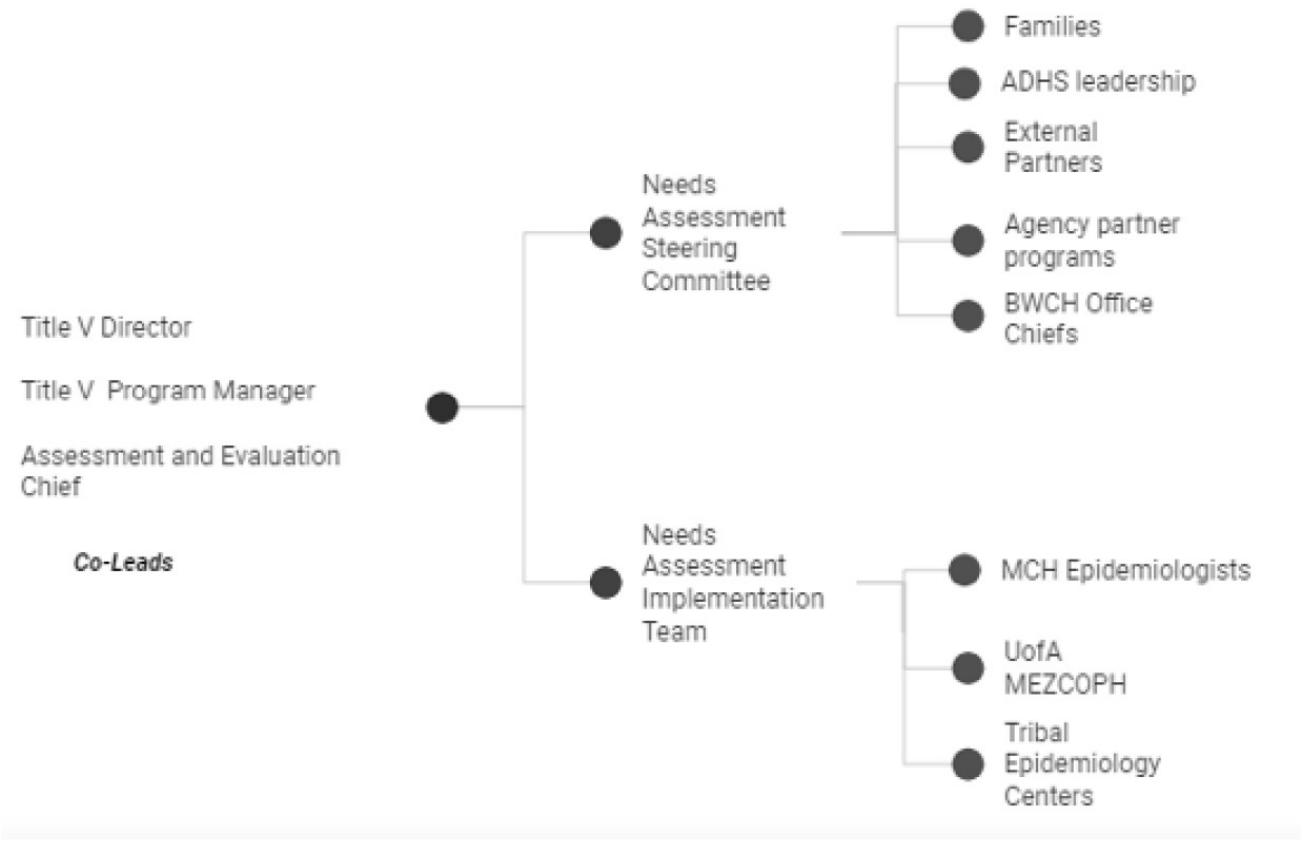
- Arizona Alliance for Community Health Centers
- Arizona Chapter of the American Academy of Pediatrics
- Arizona Chapter of the American College of Obstetrics and Gynecologists
- Arizona Health Care Cost Containment System
- Arizona Health Partnership
- Arizona Perinatal Trust
- Arizona State University - Morrison Institute for Public Policy
- Chicanos Por La Causa
- Children's Action Alliance
- Diné College
- Feeding Matters
- First Things First
- Health Systems Alliance of Arizona
- Indian Health Service
- Inter Tribal Council of Arizona
- March of Dimes
- Maricopa County - South Phoenix Healthy Start
- Mariposa Community Health Center
- Navajo Department of Health - Navajo Epidemiology Center
- Navajo Department of Health's Tribal Epidemiology Center
- Northern Arizona University
- Northern Arizona University - Institute for Human Development
- Phoenix Children's Hospital
- Prevent Child Abuse Arizona
- Raising Special Kids
- University of Arizona - College of Medicine Phoenix
- University of Arizona - Mel and Enid Zuckerman College of Public Health
- University of Arizona - Pediatric Pulmonary Center
- University of Arizona - Southwest Institute for Research on Women
- Valleywise Health

Nomination of individuals for the steering committee were provided by the Bureau of Women's and Children's Health (BWCH) Office Chiefs and the Title V Director. In order to ensure equal representation of opinions across the different population domains, members were nominated based on their expertise and experience working in a particular MCH population domain. Organizations that worked across the lifespan were selected for the cross-cutting domain. Members of the steering committee received letters of invitation to join the committee. **Figure 9.** shows how organizations and agencies were distributed across the Title V domains.

Leadership and Implementation Team, Cont.

Planning and design of the 2020 Needs Assessment began in March 2018. Data collection commenced in June of that year, and data analysis was conducted from January 2019 to May 2020. Figure 5 provides a timeline of the Needs Assessment process, from design through dissemination.

Figure 8. Leadership Structure of the Statewide MCH Needs Assessment



Title V Needs Assessment Steering Committee

To guide the Needs Assessment process and set priorities, we established a Steering Committee, with 68 members from 27 organizations. They provided feedback on data collection approaches and tools, recommended groups of interest and local individuals for community forums, leveraged existing partnerships for participation in assessment activities, promoted assessment methodologies, participated in the prioritization process, and guided the selection of our priorities and NPMs.

Figure 9. Steering Committee Member Organization by MCH Population Domain (Partial List)

The steering committee serves as a representatives of Arizona's MCH communities and the local public health system. Members represent state agencies, non-profit organizations, advocacy groups, families, and other MCH stakeholder; in short, the very people and organizations best positioned to address the needs identified in this assessment.

The steering committee met quarterly (6 meetings in total) for three to four hours. During the initial meeting in January 2019, members of the steering committee received an orientation on the Title V Block Grant and on the state's priorities and national performance measures (NPMs). A major role for the Steering Committee was their participation in the priority setting meeting where the new priorities for the 2021-2025 block grant cycle were finalized.

ADHS is grateful for each of the committee members' commitment to the statewide needs assessment and the new priorities for the upcoming cycle of the Title V MCH Block Grant.

Approach and Methodologies

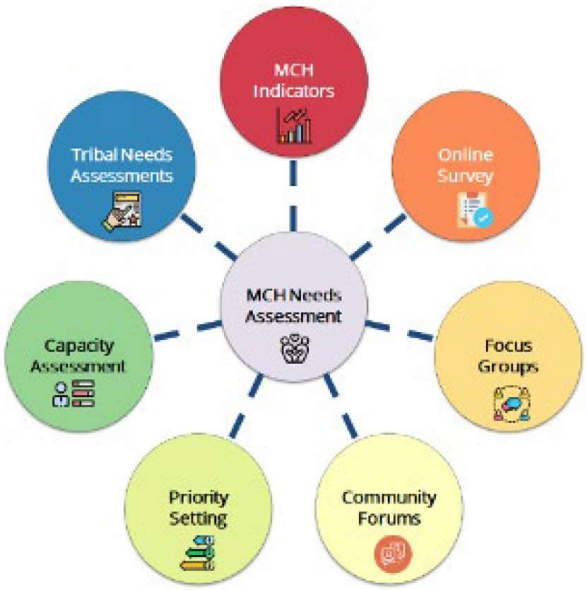
| QUANTITATIVE AND QUALITATIVE METHODS

Designing the 2020 Title V MCH Needs Assessment started in 2018. The process began by reviewing previous needs assessments that have been submitted by ADHS. In addition, we conducted an extensive review of population and program data related to disparities, needs, and strengths. Several other partners had begun their needs assessment processes at this same time: First Things First, Arizona Early Childhood Development and Health Board conducted their 2020 Needs and Assets Report; Department of Child Safety conducted their child maltreatment prevention needs assessment; the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) started their needs assessment update; and ADHS was in the midst of completing our 2019 in-depth state assessment of the health and wellness needs of all Arizonans as part of the Public Health Accreditation process.

In designing the needs assessment methodologies, the team kept in mind the overarching principles and values that were described earlier. The implementation team wanted to put forward a design that would allow for ADHS to collect feedback from those communities that are not typically involved in needs assessment data the most but also provide venues for individuals to provide feedback into the needs assessment however they felt comfortable doing so. In addition, the implementation team felt strongly about seeking out and including the priority areas for Arizona's 22 indigenous communities into the needs assessment. This decision was made due to this community caring a greater burden of morbidity and mortality in their maternal and child health population. These needs assessments were intended to stand as their own MCH needs assessments to support the tribes while also complementing the overall statewide needs assessment. The needs assessment includes seven (7) different methodologies or approaches to collecting and understanding the need for preventive and primary care services for the MCH populations in Arizona.

Each methodology of the MCH Needs Assessment is intended to complement one another. Each methodology uses a different data source, engages different types of stakeholders as their participants (i.e., parents, providers, youth), and takes place in different locations across the state. The intention with this is that the needs assessment can be as inclusive and comprehensive as it can be. Below is a diagram depicting each methodology employed in the needs assessment.

Figure 10. Methods in the Title V MCH Needs Assessment



Approach and Methodologies

| QUANTITATIVE AND QUALITATIVE METHODS

Overall the needs assessment includes two quantitative, three qualitative, and two mixed approaches. Each approach uses a different type of data method, primary data collection vs. secondary data collection, and each approach has its own unique purpose. **Table 2** provides a snapshot of the approach, data type, data method, and purpose.

Table 2. Data Collection Approaches in Arizona's 2020 Title V Needs Assessment

Approach	Data Type	Data Method	Purpose
MCH Indicators	Quantitative	Secondary	Identify both desirable and undesirable overall trends in MCH populations
Public Survey	Quantitative/ Qualitative	Primary	To seek feedback from the community regarding the most important health needs for each HRSA MCH population.
Focus Groups	Qualitative	Primary	Aimed at collecting perceived needs from select communities on MCH and public health issues.
Tribal MCH Needs Assessments	Quantitative/ Qualitative	Primary/ Secondary	Primary objective to identify the maternal and child health priority needs of the Tribal Nations in Arizona
Community Forums	Qualitative	Primary	Presentation of MCH data and focus group findings with local SMEs, public health and social service agencies, and other partners in all counties
Capacity Assessment	Qualitative	Primary	An assessment of Arizona's Title V Program ability to carry out core maternal and child health (MCH) functions.
Prioritization	Quantitative	Primary	A facilitated priority setting session with key stakeholders for the selection of Arizona's MCH priorities for the 2021-2025 cycle.

| DATA SOURCES

A variety of data sources were used to produce the analysis included in this report. Agency epidemiologists reviewed all reliable data sources available for each health outcome to ensure the data was accurate, representative, and timely. When available, data is stratified by race and ethnicity, sex, age group, geographic location, and social demographics to highlight areas of health disparity across populations. **Table 3** includes a list of state and national quantitative data sources that were used in this assessment.

DATA SOURCES, Cont.

Table 3. State and National Quantitative Data Sources

Data Source	Description
ADHS Bureau of Vital Records of Birth and Death	Birth Certificate: A birth certificate is a legal document attesting birth, paternity, adoption, and official identity. All births to Arizona residents, including those of residents who give birth in other states are included in the birth certificate system maintained by the ADHS Bureau of Vital Records. Death Certificate: Information on deaths is compiled from the original documents filed with the ADHS Bureau of Vital Records and from transcripts of death certificates filed in other states but affecting Arizona residents. Mortality data in this report present death of Arizona residents.
ADHS Hospital Discharge Data	Hospital Discharge Data are a valuable source of information about the patterns of care, public health, and the burden of chronic disease and injury morbidity. ADHS collects hospital discharge records for inpatient and emergency department visits from all Arizona licensed hospitals. The available data are for state-licensed hospitals including psychiatric facilities. Federal, military, and the Department of Veteran Affairs hospitals are not included.
Youth Risk Behavior Surveillance System (YRBSS)	The Youth Risk Behavior Surveillance System was established in 1991 by the Centers for Disease Control and Prevention (CDC) to monitor six priority health-risk behaviors that contribute to the leading causes of morbidity and mortality among youth and young adults in the United States. One component of the surveillance system is the biennial school-based Youth Risk Behavior Survey (YRBS). Survey results are based on representative samples of high school students in the nation, states, tribes, and select large urban school districts across the country.
BRFSS™ Behavioral Risk Factor Surveillance System	The Behavioral Risk Factor Surveillance System is a population-based telephone survey conducted annually in all 50 states, the District of Columbia and U.S. territories to collect information on health-related behavioral risk factors, preventable health practices, healthcare access, and chronic conditions among non-institutionalized U.S. adults aged 18 years or older.

DATA SOURCES, Cont.

Table 3. State and National Quantitative Data Sources, Cont.

Data Source	Description
National Survey for Children's Health	The National Survey of Children's Health (NSCH) provides rich data on multiple, intersecting aspects of children's lives including physical and mental health, access to quality healthcare, and the child's family, neighborhood, school, and social context. The National Survey of Children's Health is funded and directed by the Health Resources and Services Administration (HRSA) Maternal and Child Health Bureau (MCHB)
Arizona Youth Survey	America's Health Rankings, guided by an Advisory Council, works on themes and topics to provide a wide variety of health and health-related information to help policymakers, advocates, and individuals understand a population's health in a holistic, inclusive manner. The Annual Report is the longest running annual assessment of the nation's health on a a state by-state basis. The Annual Report has analyzed a comprehensive set of behaviors, public and health policies, community and environmental conditions, and clinical care data.
Arizona Maternal Mortality Review Program	The Arizona Maternal Mortality Review Program (MMRP) has conducted reviews of all pregnancy associated deaths within the State since the program's inception in 2012. The review committee classifies maternal deaths into one of the four following categories: pregnancy related death, pregnancy associated death, not pregnancy related or associated, and unable to determine. Once categorized, the MMRC team focuses on the cause of death for pregnancy related and pregnancy associated deaths. The comprehensive review examines whether the death was preventable or not and if there were any underlying causes for pregnancy related deaths. If the death was considered preventable, the committee will make recommendations on what could have been done to change the outcome.

Arizona Maternal and Child Health Risk Profile and Indicators of Interest

This was a quantitative methodology that was used to identify both desirable and undesirable trends in the MCH populations. This methodology involved the development of an Arizona MCH Risk Profile. The risk profile summarizes how Arizona compared to the national average on 47 indicators related to maternal and child health as listed in HRSA's Title V Information System (TVIS). The profile uses the most recently available national data. The profile uses the percentages that Arizona is above or below the National average on each of the specific measures. The formula for the analysis is listed below:

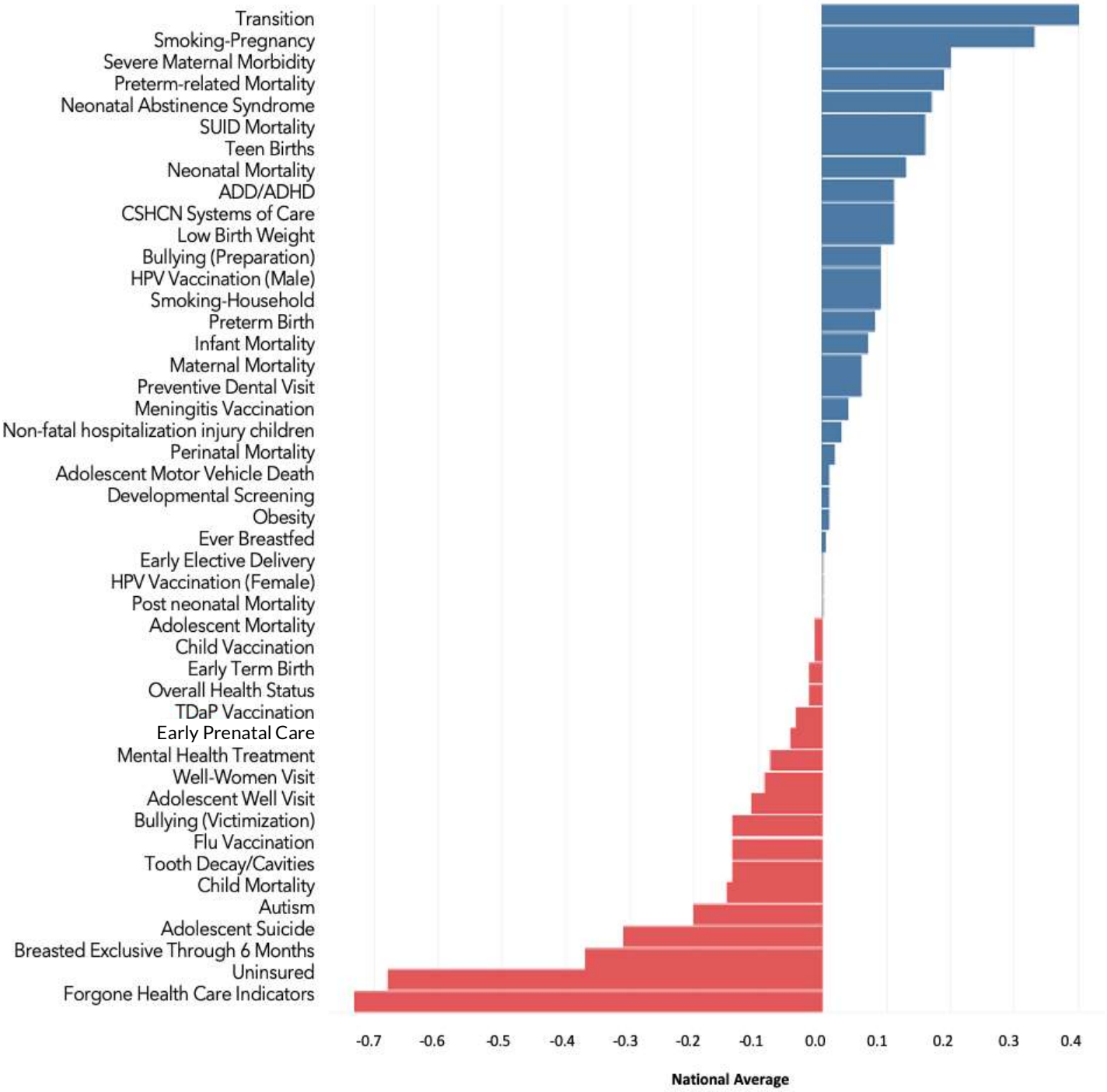
$$\left(\frac{The\ Arizona\ estimate\ (rate\ or\ ratio)}{The\ National\ estimate\ (rate\ or\ ratio)} - 1\right) x\ 100$$

A negative value (18 indicators) indicates worse than average standing on an indicator. A positive value (25 indicators) indicates better than average standing on an indicator. A '0' value indicates equal to the national average (3 indicators). Below is the list of indicators that were analyzed to develop the risk profile. Those in red are indicators where Arizona did not fare favorably compared to the National estimate.

- Adolescent Mortality
- Adolescent Suicide
- Adolescent Well Visit
- Autism Spectrum Disorder
- Birth Defects
- Bullying (Victimization)
- Bullying (Perpetration)
- Child Mortality
- Child Vaccination Exemptions
- Child Vaccination
- Children/Youth with Special Health Care Needs
- Early Elective Delivery
- Early Prenatal Care
- Early Term Birth
- Flu Vaccination
- Health Insurance Coverage
- HPV (Human Papillomavirus) Vaccination
- Infant Mortality
- Maternal Mortality
- Mental Health Treatment
- Neonatal Abstinence Syndrome
- Newborn Screening
- Overall Health Status
- Post-neonatal Mortality
- Preterm Birth
- Received Needed Health Care
- Severe Maternal Morbidity
- Tdap (Diphtheria, Tetanus, Whooping Cough) Vaccination
- Teen Births
- Tooth Decay / Cavities
- Well Woman Visit

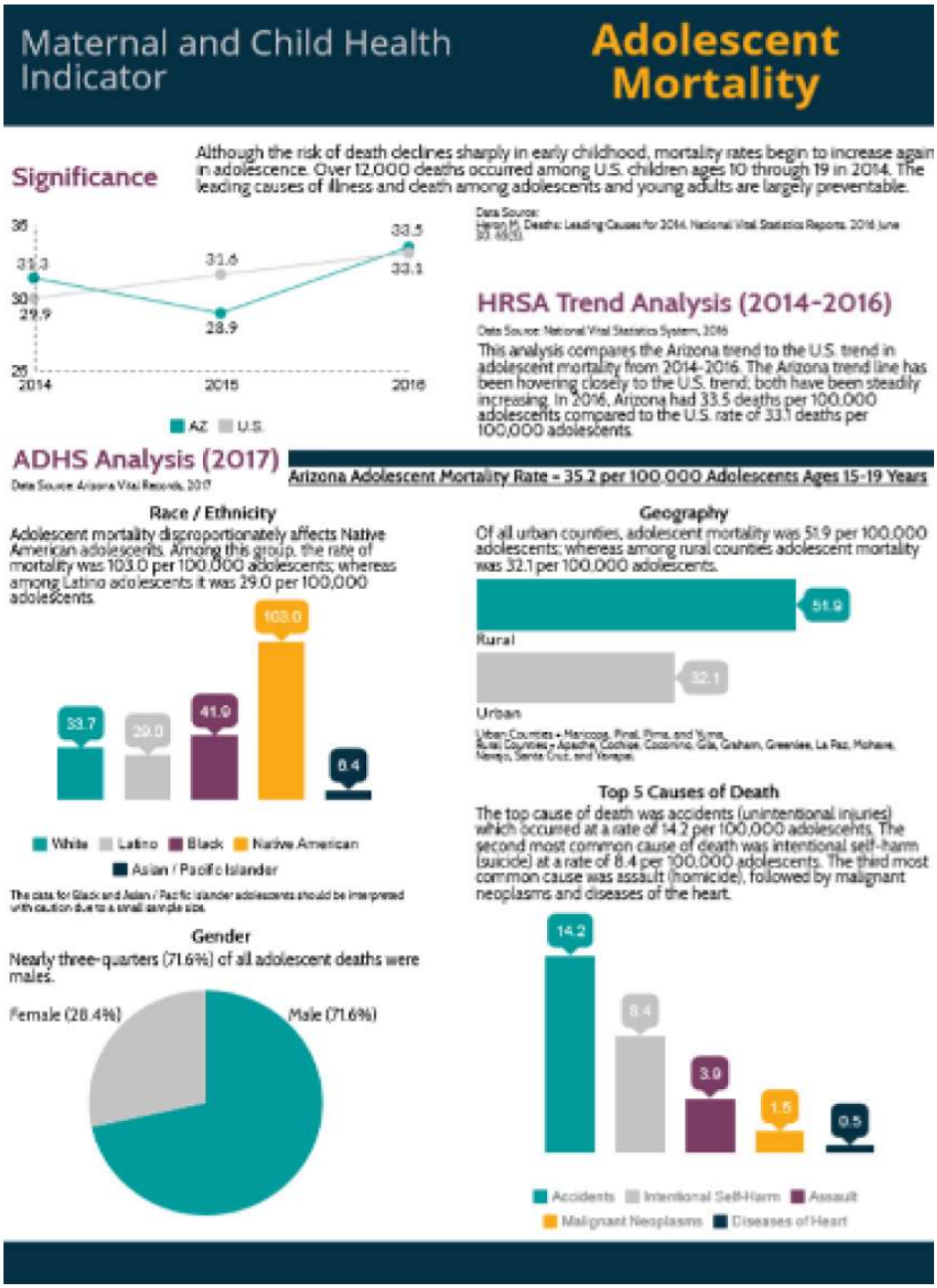
Figure 11 depicts the Arizona MCH Risk Profile; those in red are indicators where Arizona compared not favorably and those in blue where Arizona compared favorably to national averages. Indicators with a grey line indicate equal estimates.

Figure 11. Arizona MCH Risk Profile



From the list of indicators in red, the assessment team further analyzed each indicator to understand why Arizonans were faring less favorably across this indicator. When sufficient data was available for disaggregated analyses (more than 25 observations), the data was stratified and reported as sub-group analyses across race; income; children with special healthcare needs status; housing; employment; age; and education. Trend analysis was also conducted when data are available for the previous 4 years. Findings from these analyses were converted into infographic style sheets for publication and distribution. Indicators that are considered 'hot topic' items for maternal and child health were also further analyzed regardless of Arizona's performance. Figure 12 is a snapshot of an infographic.

Figure 12. Maternal and Child Health Indicator Infographic



The steering committee reviewed and provided feedback on all 28 indicator sheets that were developed. Feedback from the committee was then reviewed by the implementation team and addressed via a tracking sheet. Feedback that was able to be incorporated was included in the final revisions of the indicator sheets. This approached utilized a variety of data sources including the following:

- Arizona and National Birth and Death Data
- Arizona Youth Survey
- Behavioral Risk Factor Surveillance System
- Birth Defects Registry
- Hospital Discharge Data
- National Survey for Children's Health
- Oral Health Study
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- US Census Data
- Youth Risk Behavior Surveillance System

The purpose of the public survey was to seek feedback from the community regarding the most important health needs for each Title V MCH population (women/mothers, infants, children, children with special health care needs, and adolescents). The survey collected a mixture of quantitative and qualitative data and was made available online in English and Spanish. Data collection started on August 16, 2019, and concluded on February 29, 2020 (194 days). The survey received a non-research determination from ADHS' Human Subjects Review Board. The implementation team worked on several promotional activities to increase participation in the survey. The promotional activities that were used included flyers (English and Spanish); social media postings on Twitter and Facebook; publication on the ADHS website; a published blog by the ADHS Director; and e-mail blasts to contractors and partners. The steering committee reviewed the survey prior to its launch and provided feedback on question structure and survey design. The survey included questions that collected demographic information; perceptions on social determinants of health; gaps in meeting service needs per MCH population; and open-ended questions that captured general recommendations or suggestions for ADHS. The responses for the survey included 1025 English participants and 53 Spanish participants.

Figures 13-15 include the survey's promotional flyer; social media postings; and web postings.

The steering committee reviewed and provided feedback on all 28 indicator sheets that were developed. Feedback from the committee was then reviewed by the implementation team and addressed via a tracking sheet. Feedback that was able to be incorporated was included in the final revisions of the indicator sheets. This approached utilized a variety of data sources including the following:

Figure 13. Facebook Postings

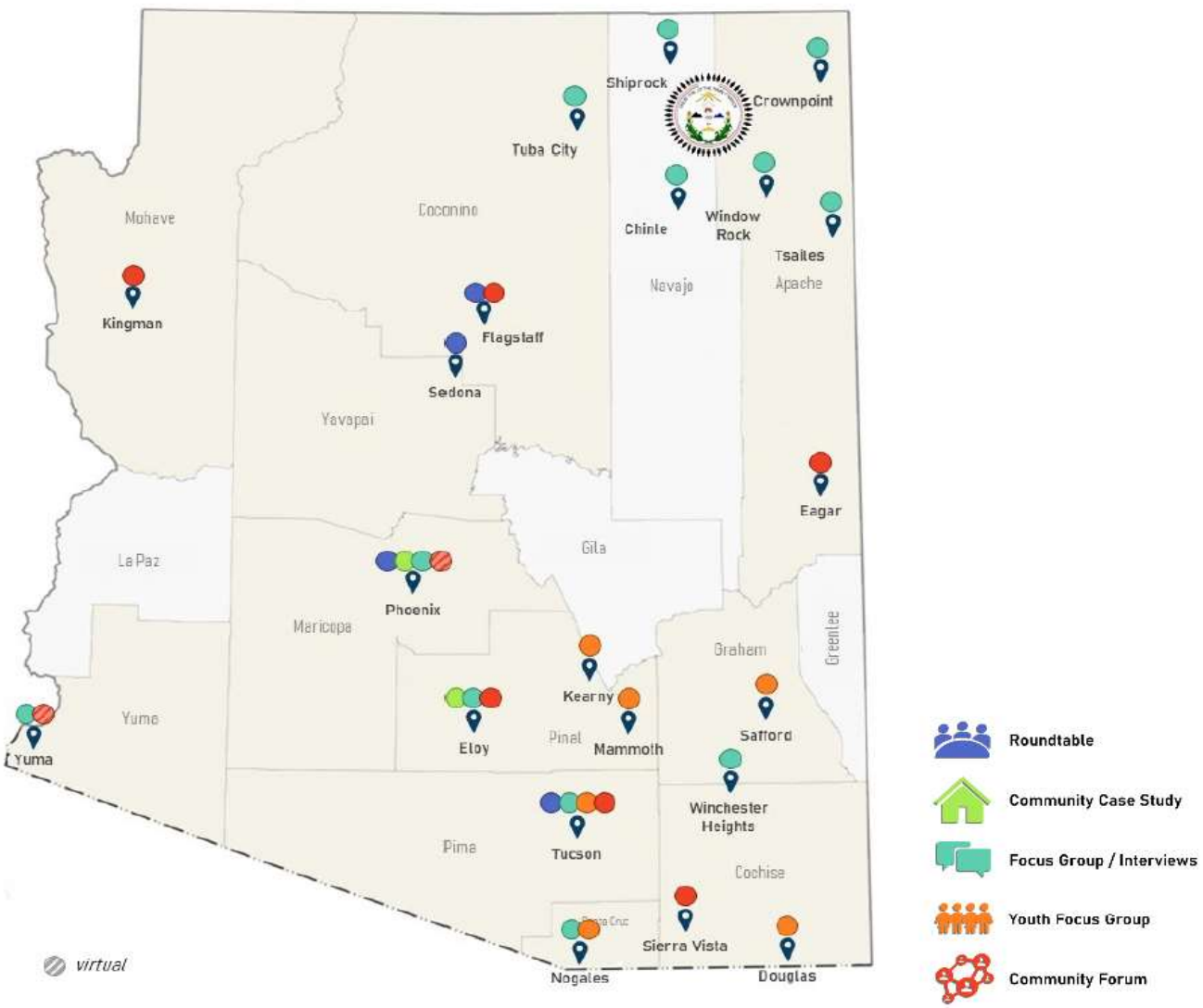
Figure 14. Web Posting

Figure 15. Spanish and English Promotional Flyer

Engaging Hard to Reach Communities

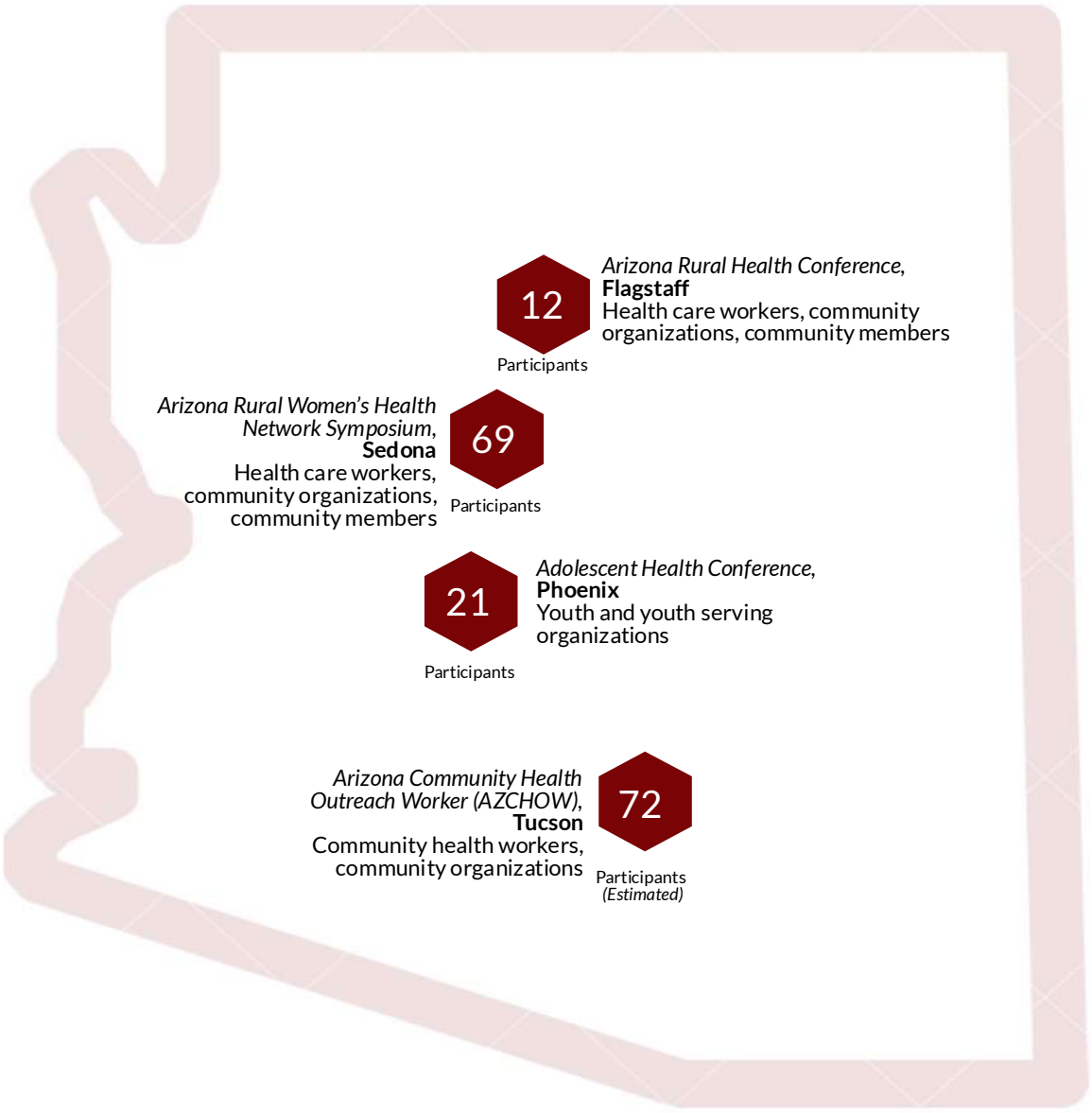
A variety of approaches were utilized to engage hard to reach communities that are often overlooked or missed in public health assessments. A collaboration with the University of Arizona's Mel and Enid Zuckerman College of Public Health, Diné College, and the Inter-Tribal Council of Arizona allowed for a wide diversity of methods to be employed statewide. This yielded rich qualitative data to support and enhance findings from the quantitative assessments. Figure16. depicts different locations were qualitative data collection activities took place.

Figure 16. Qualitative Data Collection Locations



Engaging Hard to Reach Communities, Cont.

Figure 17. Statewide Meetings



During these statewide meetings the team used the **River of Life** method to collect information. River of Life is an interactive planning tool designed for use with groups of people from different backgrounds. For example, members of the group may speak different languages or have different levels of education. Because the tool is visual, everyone can contribute and understand. The team was able to collect 32 River of Life drawings and a framework analysis was used to analyze this data.

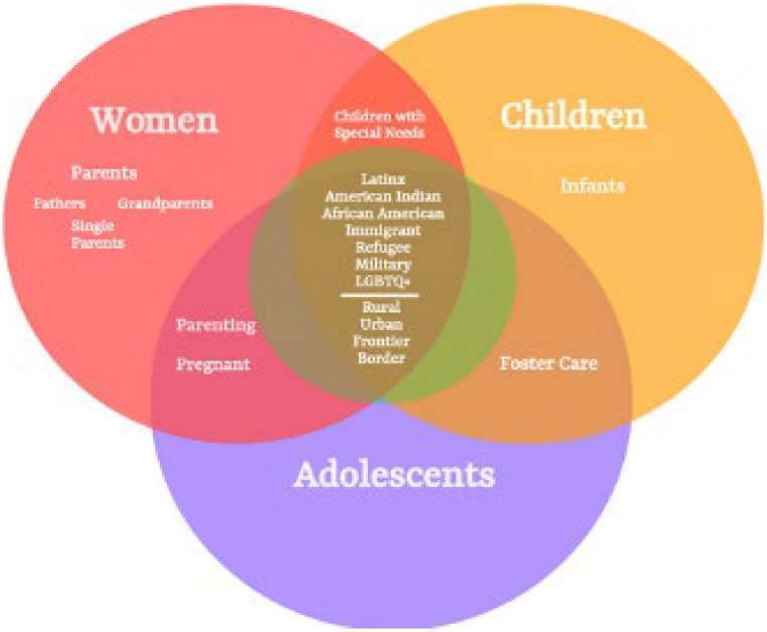
The primary goals for the focus groups and interviews were to collect more in-depth information on the experiences of individuals receiving services and to identify specific needs of particular communities.

The focus was on those not traditionally heard who are under-represented in research and services. Participants for the focus groups were chosen based on two criteria:

1. Resident of Arizona
2. Belongs to the community group or works for an organization that serves this group

Figure 18. depicts the different communities that were identified by the steering committee.

Figure 18. Outreach Strategy for the Focus Groups



The team conducted 15 focus groups with adults and 8 with youth, giving a total of 25. We also conducted 13 interviews. Each focus group included between 4-12 participants. With the help of many partners, the team reached 135 individuals from several hard-to-reach communities (see **Tables 4a and b**). The number of focus groups was limited by time and financial resources.

Table 4a. Adult Focus Groups and Interviews

Community	Partners	Location	# No. focus groups (FG) and interviews (I)
Refugees	International Rescue Committee (IRC);	Tucson	1 I
	Women's Health Clinic	Phoenix	1 I
	Student	Phoenix	3 I
African American	Coalition for African American Health and Wellness;	Tucson	1 FG
	South Phoenix Health Start	Phoenix	1 FG
Latino	Hope Network	Phoenix	3 FG
	SEAHEC, Winchester Heights	Wilcox	2 FG
	Mariposa Community Health Clinic	Nogales	1 FG
Rural	WIC	Pinal County	2 I
Families with children with special health care needs	Raising Special Kids	Phoenix Yuma	3 FG
LGBTQ+	Arizona Trans Youth and Parent Organization (AZTYPO)	Phoenix	1 FG 3 I

Table 4a. Adult Focus Groups and Interviews, Cont.

Community	Partners	Location	# No. focus groups (FG) and interviews (I)
Foster Families	Onward Hope	Phoenix	2 I
Service Providers	First Things First	Phoenix	3 FG
TOTAL Adult Focus Groups & Interviews:			**17 FG, 12 I**

Table 4b. Youth Focus Groups and Interviews

Community	Partners	Location	# No. focus groups (FG) and interviews (I)
High School Students	Eastern Area Health Education Center (EAHEC)	Cochise, Graham, Pinal Counties	5 FG
Youth involved in the justice system	Eastern Area Health Education Center (EAHEC)	Graham County	1 FG
Youth	Mariposa Community Health Center	Nogales	1 FG
Young pregnant and parenting mothers experiencing homelessness	Our Family Services	Tucson	1 FG
Youth Service Providers	One-N-Ten	Telephone interview	1 I
TOTAL Youth Focus Groups & Interviews:			**8FG, 1 I**

Focus groups and interviews were conducted from August – November 2019. They lasted from 1-2 hours and most took place at lunchtime or in the early evening, as this was more convenient for participants. Each focus group had a facilitator and note-taker. They ranged in size from five to 12 participants. Seventeen focus groups were in English and six were in Spanish. Most were audio-recorded with permission from all participants. Notes were taken by hand or on a laptop by the note-taker. All focus groups were facilitated by a member of the assessment team and participants were provided with a $20 gift card. Food was provided at the focus groups. The focus group was approved by the University of Arizona Human Subjects Protection Program. All participants completed written consent forms prior to the data collection. Additionally, youth had parental consent to participate and also completed their own consent form. Thematic analysis was conducted to analyze the data with inter-coder reliability.

Tribal MCH Need Assessment

For this iteration of the needs assessment, ADHS wanted to engage its tribal partners in a meaningful way to better understand their unique needs for preventive and primary care services for their MCH populations. Arizona is home to 22 federally recognized tribes; each of which have their own unique culture. Recognizing that the tribes are a significant population in our State and that the greatest burden regarding maternal and child health outcomes falls on them, ADHS partnered with the Inter Tribal Council of Arizona and Diné College/Navajo Department of Health Epidemiology Center for this portion of the assessment. Both entities developed their own methodology based on what they understood would work best in tribal lands; therefore, the methodology in both assessments is diverse and unique. Please refer to the hyperlinks to access each health assessment report.

- Navajo Nation Maternal and Child Health Needs Assessment
- Arizona Maternal and Child Health Needs Assessment

Inter Tribal Council of Arizona

The Inter Tribal Council of Arizona (ITCA) was established in 1952 to provide a united voice for tribal governments located in the State of Arizona to address common issues of concerns. ITCA is an organized body and represents 21 out of the 22 federally recognized tribes in Arizona; the Navajo Nation being the only nation it does not have in its membership. The purpose of the Maternal and Child Health Assessment for American Indians and Alaska Natives in Arizona, Nevada, and Utah report is to provide maternal and child health information for the Phoenix and Tucson Indian Health Service (IHS) Areas from 2013-2017. The ITCA team conducted a review of IHS birth data, hospital discharge data, and ITCA WIC Program Data. The team also conducted listening sessions to engage tribal members and providers.

Inter Tribal Council of Arizona, Cont.

The ITCA conducted various listening sessions held in the fall of 2018, at conferences and meetings where Tribal Health Directors, Women, Infants and Children Directors, Community Health Representatives (CHR) and CHR Directors gathered. The team was able to identify priority areas for each MCH population for the tribes.

Tribal feedback was collected at the following events:

Figure 19. Tribal Feedback Events

Diné College/Navajo Nation Department of Health Epidemiology Center

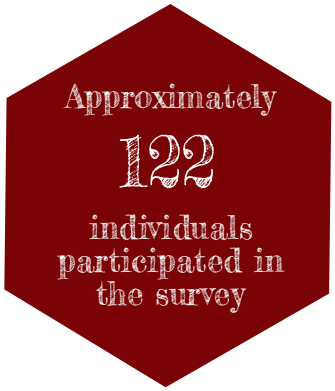
In 2020, the Bureau contracted with Diné College to lead a Maternal and Child Health (MCH) Needs Assessment specific to the Navajo Nation. Diné College engaged the Navajo Nation Epidemiology Center, the Navajo Nation Pregnancy Risk Assessment Monitoring System (PRAMS) advisory group and Northern Arizona University to collaborate in the design, implementation and development of the 2020 Navajo Nation MCH Needs Assessment.

This assessment documents the health status of women and children residing within the Navajo Nation and, indirectly, is a review of the strengths and weaknesses of the health care systems in place for women and children. The intention is to inform MCH priority setting for the next five years within the Navajo Nation.

Unique to this assessment, a Navajo specific cultural framework, Sa'ah Naagháí Bik'eh Hózhóón, was used to emphasize that health outcomes expand beyond socioeconomic status and biomedical factors and are influenced by the balance between individual, family, community, and environmental health. The application of the Navajo world view and concept of health is critical to guide locally and culturally relevant priorities.

The Navajo Assessment Team convened their own advisory council to provide guidance and support as their methodologies. The team conducted five input events from February 2020 to March 2020 to gather people's perspectives on current and future MCH services, including but not limited to healthcare, education, food assistance, and other resources across the Navajo Nation. A provider survey was launched in April and closed at the end of May 2020. The survey was administered through the Qualtrics survey platform and included eight (8) questions (open-ended and multiple-choice questions) to gather demographics, and provider perspectives on:

- Intervention Use and Needs,
- Client and Provider Barriers,
- Health Information, and
- Maternal and Child Health Priorities.



Community Forums

ADHS and University of Arizona collaborated together on the execution of the community forums. One of the final pieces of the assessment, the goal of the community forums was to obtain feedback on the data that had previously been collected and to identify needs of specific localities. These forums were held in public spaces such as libraries or training rooms inside health departments. County selection and location for the community forum was done by ADHS. The aim was to make sure people from most of the counties in the state could attend at least one forum.

There were six (6) community forums held in person and the remaining three (3) were held virtually due to the COVID-19 pandemic. Although the goals were the same, the delivery approach was different. Table 10 lists the different sites for each community forum along with the format and number of participants that
attended the forum. Each forum began with an overview of data from MCH indicator and focus group methodologies. Due the COVID-19 the Yuma, Spanish (Statewide), and Phoenix community forums needed to be adapted into a virtual platform. In order to convert the forum from in-person to virtual new technologies were introduced as Zoom and Poll Everywhere were utilized to hold the forums but also collect stakeholder feedback remotely.

A consultant provided professional facilitation and community forums were organized into two stages of data collection. The first was to collect feedback from participants as to the MCH health needs for their community and the second was to conduct a local prioritization exercise on those identified health issues.

To do this, attendees were asked as a group to place identified areas of health need on the prioritization matrix. The X-axis of the prioritization matrix indicated the level of neec for that specific item starting with low need to high need and the Y-axis showed the level of difficulty it would be to change the current context around that item starting from easier t change to harder to change. Figure 20 includes the prioritization matrix and examples of items that go in each quadrant of the prioritization matrix.

Figure 20. Prioritization Matrix

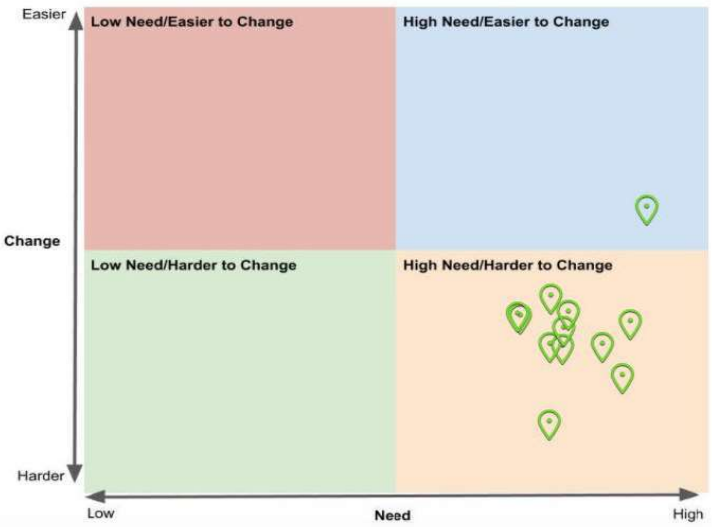


Table 5. Community Forums

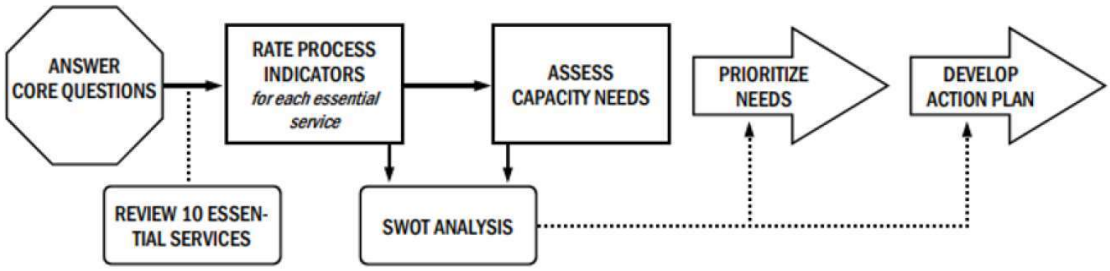
Location | Date | In-Person | Virtual | # No. of participants

Kingman (Mohave)	2/27/2020	In-Person	5
Flagstaff (Coconino)	2/28/2020	In-Person	17
Sierra Vista (Cochise)	3/9/2020	In-Person	14
Eloy (Pinal)	3/10/2020	In-Person	13
Tucson (Pima)	3/11/2020	In-Person	25
Eager (Apache)	3/12/2020	In-Person	9
Yuma	7/7/2020	Virtual	10
Spanish (Statewide)	7/8/2020	Virtual	2
Maricopa	7/9/2020	Virtual	21

Capacity Assessment

The Capacity Assessment for State Title V (CAST-V) tool from the Association of Maternal and Child Health Programs was utilized to examine ADHS' organizational capacity to carry out core maternal and child health functions. This portion of the assessment was a partnership between the University of Arizona's Mel and Enid Zuckerman College of Public Health and ADHS and served as an internship project for a master's in public health student. CAST-V is a set of adaptable assessment and planning tools designed for states to examine their organizational capacity to carry out key MCH program functions. Arizona's assessment involved a series of strategic planning steps from the CAST-5 Process with internal Title V partners, including a review of the Ten MCH Essential Services (ESs) and Process Indicator Scores (PIS) for each service, completion of a Capacity Needs Tool (CNT), and a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. **Figure 21** depicts the CAST V process. Despite this being an internal capacity assessment, the steering committee was able to review the findings from the assessment and provide feedback and suggestions as to how ADHS could partner with other agencies and organizations to further enhance the work.

Figure 21. The CAST-V Process



Each component of CAST-5 can be used as a stand-alone tool for targeted purposes. Used together, the tools provide an in-depth assessment of program capacity that forms the basis for detailed action steps.

Prioritization

The final methodology of the needs assessment involved a priority setting session with the steering committee. The session was divided into two separate meetings to allow for the identification of statewide priority health areas and the finalization of priority statements. For this iteration of the block grant ADHS chose to draft 1 priority statement per MCH population and separate priorities related to advancing health equity and family engagement for a total of 7 priorities. The priority setting sessions were held via Zoom for 4 hours each on July 24, 2020 and August 13, 2020. Approximately 30 steering committee members were in attendance and each meeting received facilitation services from a 3rd party facilitator. The objectives of the first meeting included:

1) Present findings from the Title V MCH needs assessment;
2) Gather feedback, identify, and discuss priority health areas for each MCH population;
3) Provide guidance to Arizona's Title V Program on rankings of the identified priority health areas.

Prioritization, Cont.

Attendees were separated into breakout rooms following the data presentation to identify priority health areas per MCH population domain. These were facilitated by ADHS staff. After priority health areas were identified the larger group using Poll Everwhere ranked the priority health area using the dot voting methodology. Each attendee had a maximum of 3 votes they could use to select priority health areas that should be prioritized. The item that received the largest number of votes was the top priority and so on. The implementation team took this information to craft sample priority health statements that were later reviewed on August 13th. During the second priority setting meeting attendees were asked to provide their input on the rough draft write up of each priority statement via registration poll. In addition, steering committee members provided feedback to the implementation team on the write up of the priorities and each Office Chief within the Bureau of Women's and Children's Health was able to provide feedback on the statements. The final list of priorities and selected national performance metrics were presented to the steering committee on August 13th with no opposition and those are the priorities that are included in this report.

Figure 22. Demographics of Participants - Race

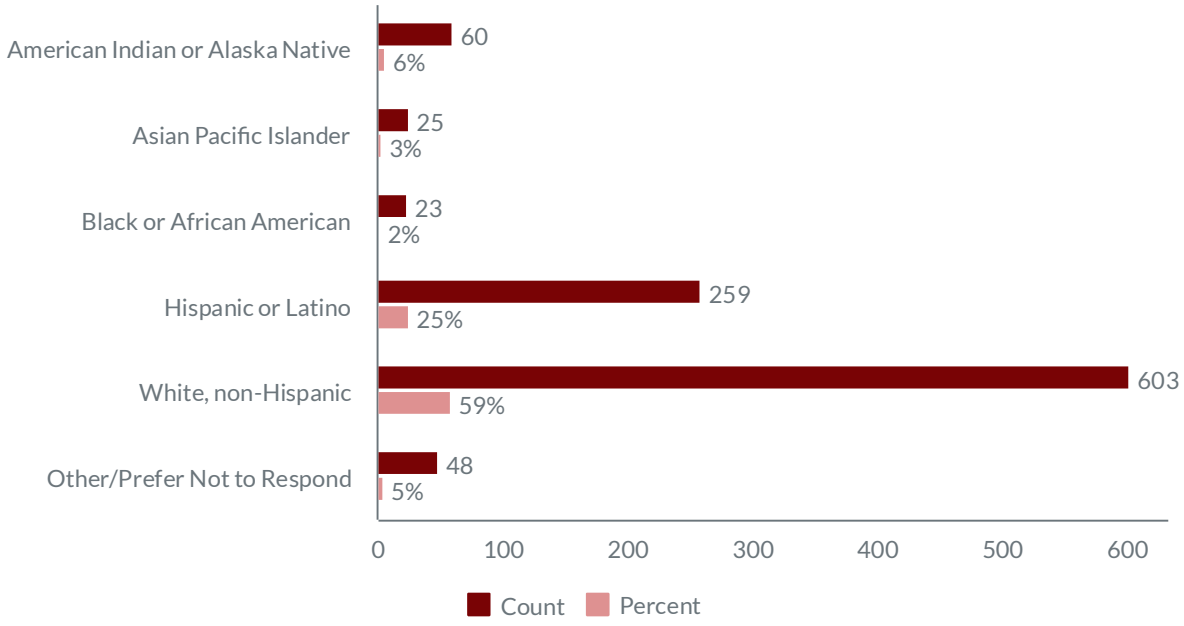
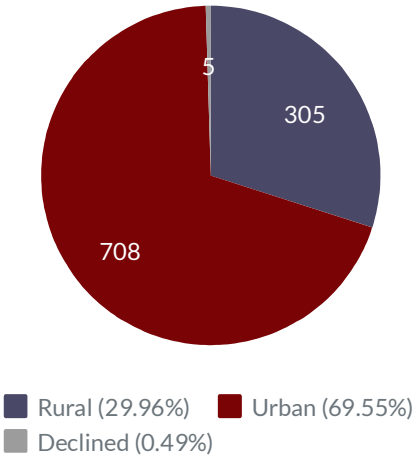


Figure 23. County of Participant's Residence - Type



Prioritization, Cont.

Figure 24. Demographics of Participant's - Age

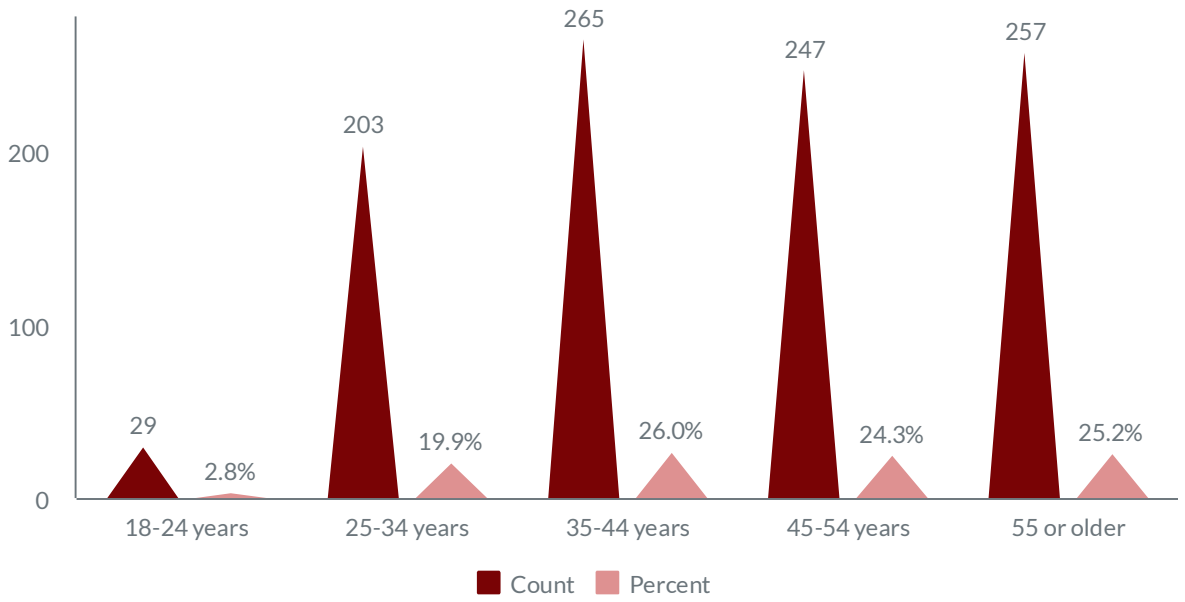
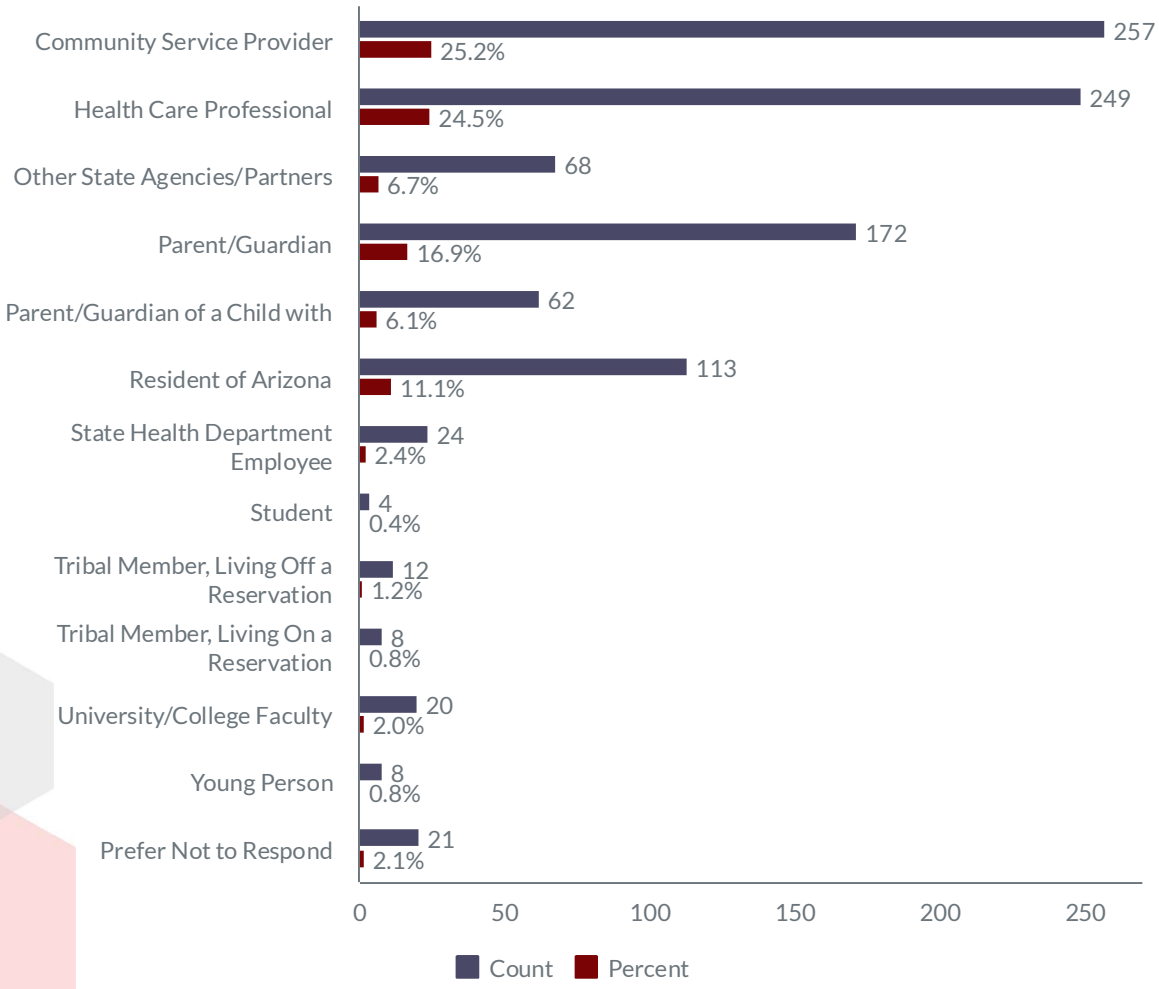


Figure 25. Participant's Primary Role



A social determinant of health are those conditions that in the places where we live, learn, work, and play that affect a wide range of health and quality of life risks and outcomes. These have been documented to have a significant role in improving or worsening outcomes in maternal and child health populations especially in minority groups. The public survey asked its participants to rank from a severity Likert scale with scores ranging from 0 to 5 the level of impact that these factors have on the health of women/mothers, infants, children, adolescents and children with special healthcare needs in their communities. Below is the full list of determinants that were included as part of the survey. This list is not intended to be exhaustive nor the items of the list exclusive from one another.

Table 6. Social Determinants of Health

	Score	Interpretation
Stress	4.18	Major
Making a livable wage	4.17	Major
Having adequate health insurance	4.15	Major
Social Emotional Support	4.14	Major
Availability of medical services	4.01	Major
Access to nutritous food	3.94	Major
Promoting healthy behaviors	3.93	Major
Transportation	3.90	Major
Housing conditions	3.87	Major
Safety/Well being	3.85	Major

A total of 647 (63.5%) respondents participated in this portion of the survey. None of the social determinants of health scored an average an 'insignificant,' 'minor,' nor a 'severe' impact score while a considerable amount received a 'major' score and the rest a 'moderate' score. The chart below provides the determinant along with their average Likert score.

Table 6. Social Determinants of Health, Cont.

	Score	Interpretation
 Unemployment	3.85	Major
 Level of education	3.64	Major
 Fair treatment	3.63	Moderate
 Homelessness	3.61	Major
 Not able to read or understand health information	3.59	Major
 Spaces for physical activity	3.51	Major
 Cultural and language appropriate services	3.45	Moderate
 Racial discrimination in healthcare	3.12	Moderate
 Residential segregation	3.12	Moderate

SDOH data was stratified by race and county of residence type to identify if there were differences in the ranking of social determinants across various groups. Tables 17-18 shows the determinants that had the highest ranking by race and geographic area. The tables list only the top 3 determinants. Additional scores are available and can be requested www.azdhs.gov/mchdata.

Table 7. Highest Ranking Social Determinants by Demographic Group

Race	Determinant	Score
Asian (N=13)	Transportation	4.31
	Availability of medical services	4.23
	Social & Emotional Support	4.23
Black (N=17)	Access to nutritious food	4.07
	Stress	4.06
	Making a livable wage	4.00
American Indian (N=40)	Social & Emotional Support	4.69
	Poverty	4.54
	Housing conditions	4.53
Hispanic or Latino (N=160)	Stress	4.25
	Social & Emotional Support	4.25
	Making a livable wage	4.23
White (N=384)	Poverty	4.18
	Having adecuate health insurance	4.14
	Making a livable wage	4.12

Table 8. Highest Ranking Social Determinants by Geographic Area

*County of Residence Type	Determinant	Score
Rural (N=200)	Making a livable wage	4.15
	Poverty	4.09
	Having adecuate health insurance	4.03
Urban (N=446)	Stress	4.28
	Poverty	4.26
	Having adecuate health insurance	4.21

*Urban Counties = Maricopa, Pima, Pinal, and Yuma. Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

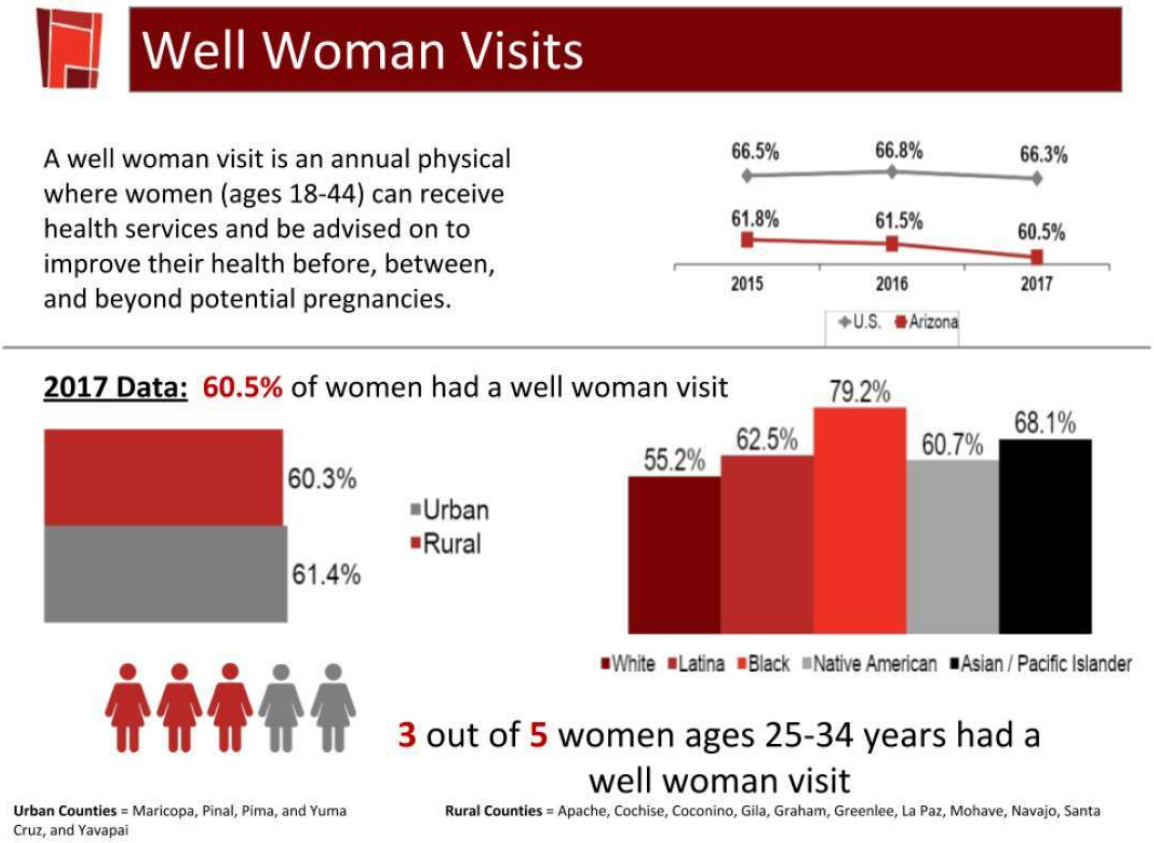
Women's Health Status

This section will focus on wellness visits, early prenatal care, severe maternal morbidity, and maternal mortality as key indicators to monitor women's health. Other indicators specific to women's health (e.g., early elective delivery, early term births) are available in the appendices. For each indicator, we report them aggregate estimate followed by subgroup analyses.

Well woman visits are an annual physical where women of reproductive age (18-44) can receive health services and be advised on how to improve their health before, between, and beyond potential pregnancies. **This indicator is one of Arizona's National Performance Measures (NPMs) and has been on the decline since 2015 when the rate was 61.8%.**

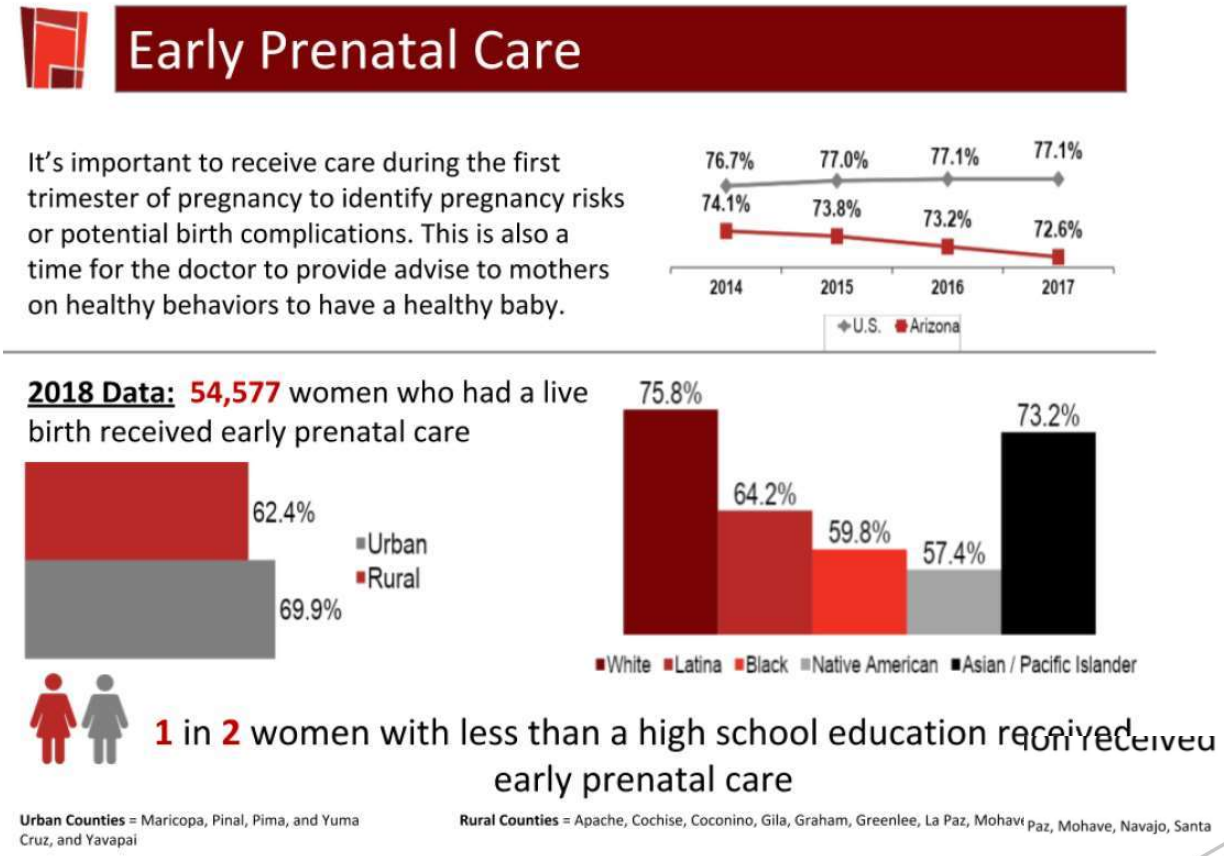
The current well-woman visit rate is 60.5%. Figure 20. depicts Arizona and national trends from 2015-2017. Women who live in an urban county (Maricopa, Pima, Yuma, Pinal) have a higher well-women visit rate compared to women who live in rural counties. Racial disparities persist within this indicator, as Blacks have the highest percentage for well-woman visits (79.2%) and White non-Hispanics reporting the lowest percentage at 55.2%. Lastly, 3 out of 5 women between the ages of 25-34 had a well-woman visit. Figure 26. includes charts for each of the subgroup analyses mentioned prior.

Figure 26: Well Woman Visits Subgroup Analysis



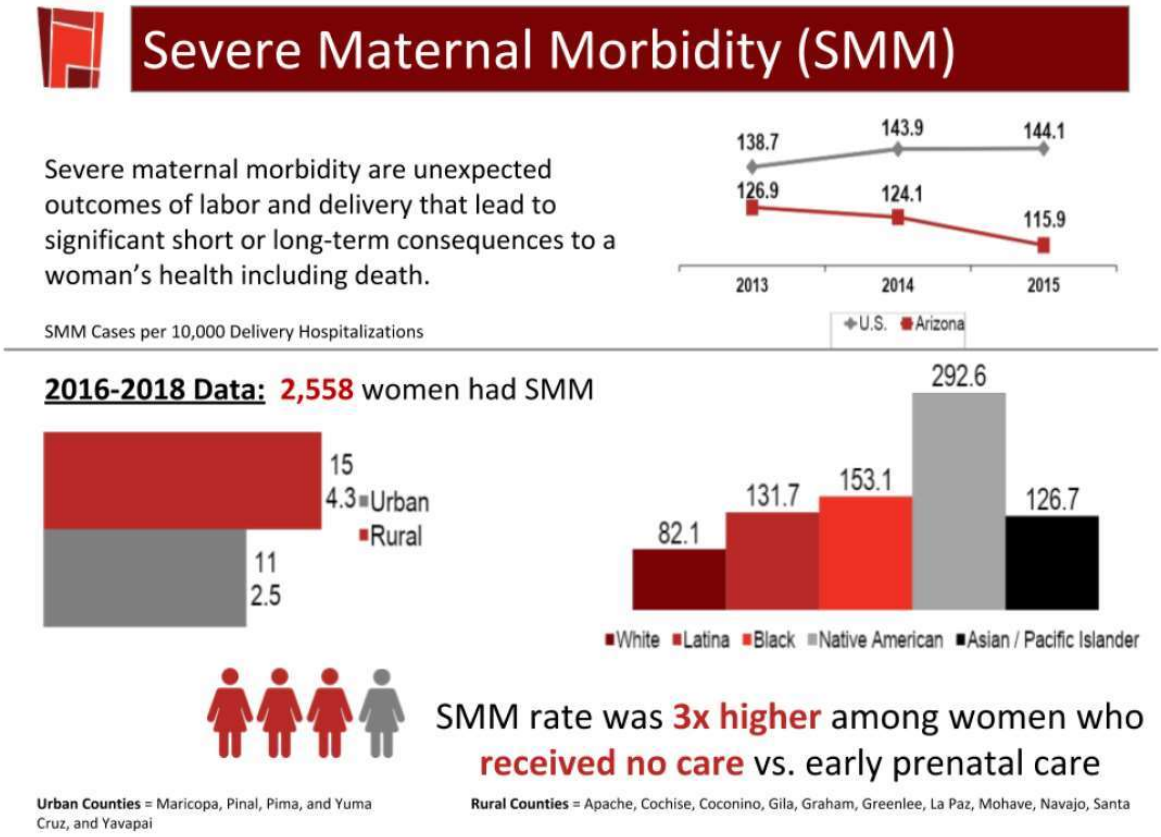
Early prenatal care has consistently been declining since 2014 when the rate was at its highest (74.1%). The current percentage of women that receive early prenatal care is 72.6%, a 2.1 percentage point decline. Noticeable disparities exist when analyzing this indicator by racial/ethnic groups. Native Americans hold the lowest percentage of early prenatal care at 57.4%, while White non-Hispanics have the highest rate at 75.8%. Approximately 1 in 2 women with less than a high school education received early prenatal care.

Figure 27: Early Prenatal Care Subgroup Analysis



Severe Maternal Morbidity (SMM) is when there is an unexpected outcome of labor and delivery that leads to significant short- or long-term consequences to a woman's health, including death. In 2015, according to TVIS, the SMM rate for Arizona was 115.9 per 10,000 delivery hospitalizations; much lower than the national estimate of 144.1 per 10,000 delivery hospitalizations. Between 2016 and 2018 a total of 2,558 women experienced SMM during pregnancy. Noticeable racial/ethnic disparities are present in this indicator: Native Americans bear the largest burden of SMM, with a rate of 292.6 per 10,000 delivery hospitalizations, which is 3.6 times greater than non-Hispanic Whites, who hold the lowest rate at 82.1 per 10,000 delivery hospitalizations. Disparities by geography are also pervasive in this indicator as women who reside in an urban county have a much lower rate (112.5 per 10,000 delivery hospitalizations) compared to women who reside in a rural county (154.3 per 10,000 delivery hospitalizations).

Figure 28: Severe Maternal Morbidity Subgroup Analysis



Maternal mortality is the key outcome indicator when it comes to maternal health and as such is one that we routinely analyze. The latest data for Arizona shows a maternal mortality rate of 20.3 per 100,000 live births. This rate is lower than the national estimate for the same year (21.5 per 100,000 live births). Similar to severe maternal morbidity, noticeable racial/ethnic disparities exist within this indicator (Figure 16). Native American women have the highest maternal mortality rate at 70.8 per 100,000 live births; this is a 4-fold difference compared to non-Hispanic Whites (17.4 per 100,000 live births). Arizona's Maternal Mortality Review Committee deemed that 89% of pregnancy-related deaths were preventable. While this fis alarming, it also suggests there is lots of room to improve these outcomes.

Figure 29: Maternal Mortality Subgroup Analysis

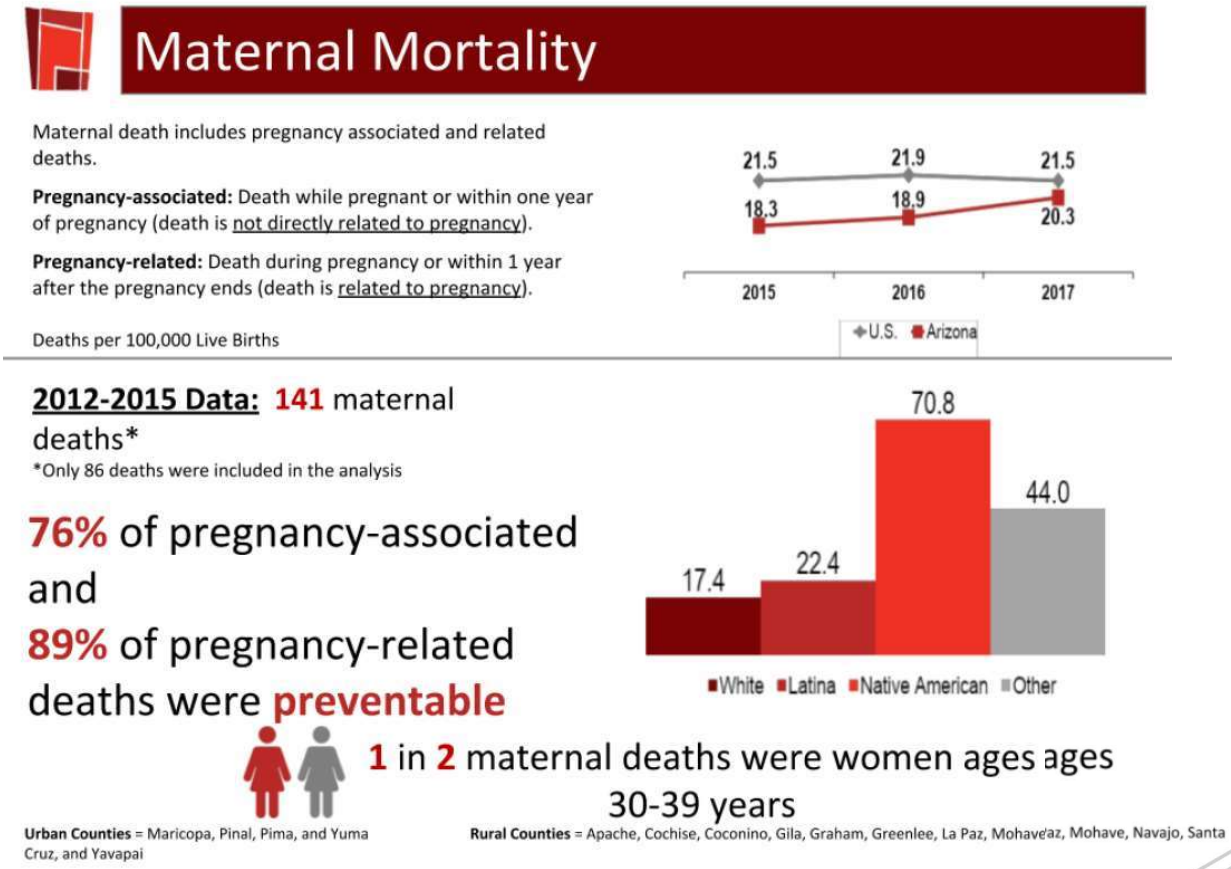


Table 9. demonstrates the top 5 services that were most needed for women's health along with the top 3 barriers to receiving each service. Data drawn from the public survey identified Arizonan women's most needed health services and barriers to receiving those services (Table 19). Lack of insurance and high cost of services were common barriers to care. Women also cited availability of services and lack of childcare to attend appointments as challenges.

Table 9. Most Needed Women's Health Services and Barriers to Care (from Public Survey data)

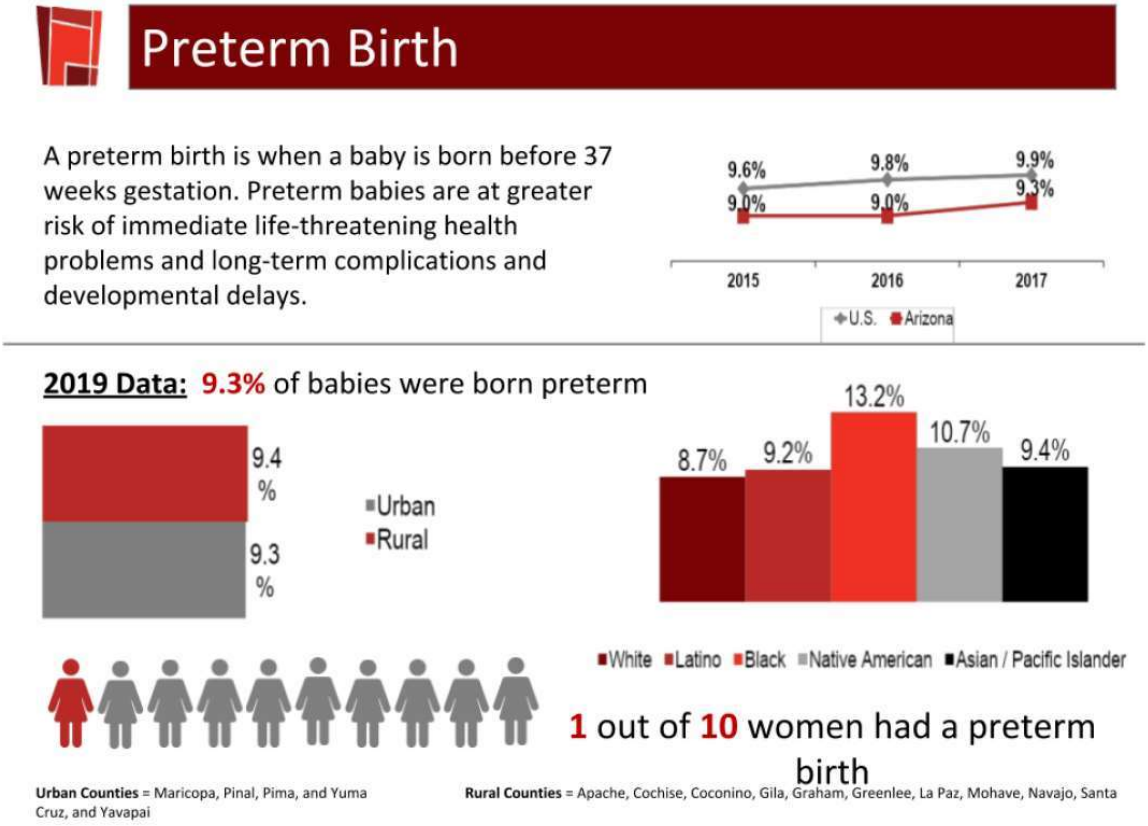
Most Needed Womens' Health Services	Barriers to Receiving Care (Top 3)
1 Chronic Condition Management	1) No childcare 2) Lacking health insurance 3) Not available in the area
2 Breastfeeding Education	1) Couldn't afford 2) No childcare 3) Lacking health insurance
3 Dental Care Services	1) No childcare 2) Lacking health insurance 3) Not available in their area
4 Diet/Nutrition Services	1) Lacking health insurance 2) No childcare 3) Not available in their area
5 Counseling or Stress Managment Services	1) Lacking health insurance 2) No childcare 3) Couldn't afford

Findings from the focus groups and community forums also supported a need for greater preventative services, insurance policies that cover the post-partum continuum of care, and greater community involvement in services. The focus groups and community forums identified Arizona's home visiting programs as a strength of Arizona's women's/maternal health services.

Infant's Health Status

Over the past two years, preterm births have risen in Arizona (Figure 20). The 2019 preterm birth rate is 9.3% with racial disparities disproportionately impacting Blacks, who hold the highest preterm birth rate at 13.2%. Non-Hispanic Whites have the lowest preterm birth rate at 8.7%. The rate does not vary based on geography.

Figure 30: Preterm Birth Subgroup Analysis



The infant mortality rate in Arizona has been increasing since 2016 when the rate was 5.4 per 1,000 live births to 5.6 per 1,000 live births (Figure 21). In 2019 approximately 431 infants died in Arizona with Blacks and Native Americans holding the highest rates at 11.9 and 9.8 per 1,000 live births, respectively. The top causes of death for infants in Arizona were (in ranking order): birth defects; short gestation and low birth weight (i.e., preterm); maternal complications; accidents (unintentional injuries); and Sudden Infant Death Syndrome (SIDS).

Figure 31: Infant Mortality Subgroup Analysis

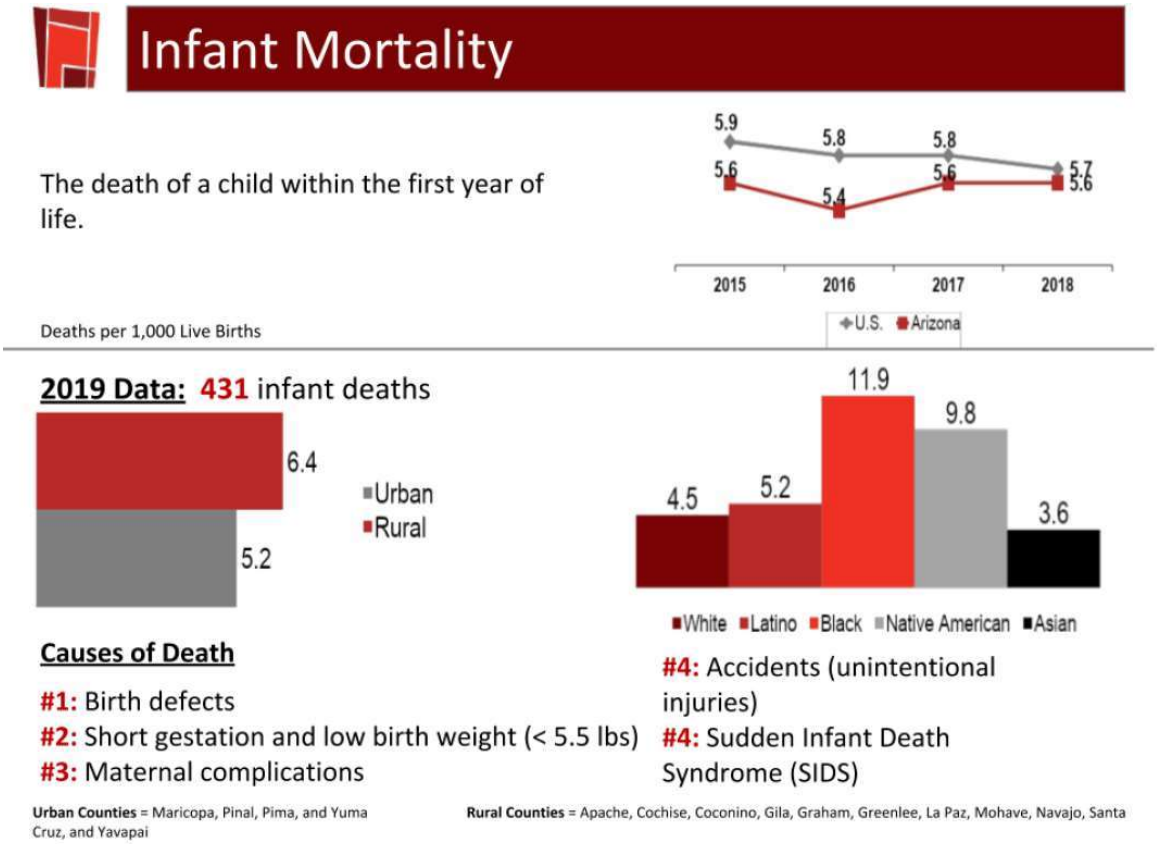


Table 10 demonstrates the top 5 services that were needed the most for infant health along with the top 3 barriers for not receiving the service.

Table 10. Most Needed Infant Health Services and Barriers to Care (from Public Survey data)

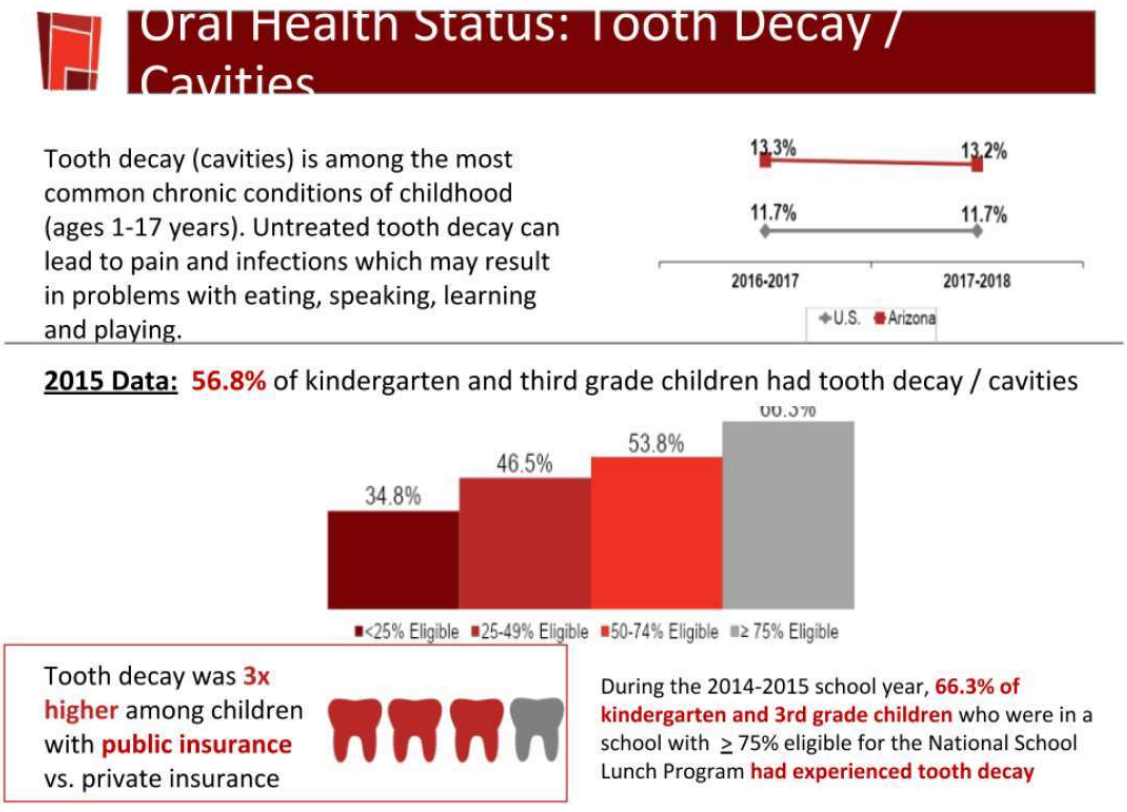
Most Needed Infant Heallth Services	Barriers to Receiving Care (Top 3)
1 Specialist Care Services	1) Lacking health insurance 2) No childcare 3) Couldn't afford
2 Genetic Counseling	1) Lacking health insurance 2) Couldn't afford 3) No childcare
3 Childcare Services	1) Lacking health insurance 2) Not available in their area 3) Couldn't afford
4 Well Baby Visits	1) No childcare 2) Lacking health insurance 3) Not available in their area
5 Home Baby Proofing	1) Lacking health insurance 2) Couldn't afford 3) Not available in their area

The focus groups and community forums highlighted the need for culturally appropriate pregnancy and birth support. There is a significant need for mental healthcare for mothers; access to specialized care; childcare support services after birth.

Children's Health Status

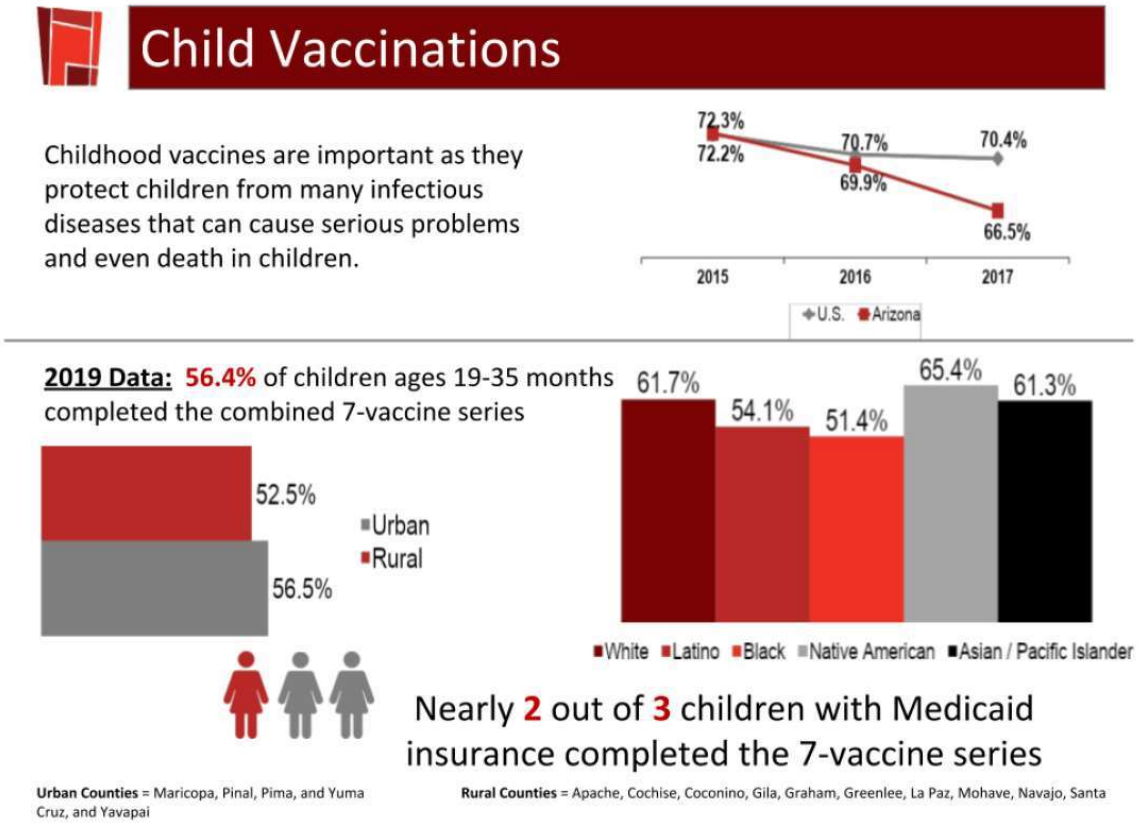
The oral health status for children in Arizona has remained the same comparing only two data collection periods. Currently 13.2% of children (ages 1-17) have tooth decay/cavities. This is higher than the national estimate of 11.7%. The oral health study which most recent data is from 2015 reported that 56.8% of kindergartners and third graders had tooth decay/cavities. Disparities by socioeconomic status exist with this indicator as school with a student population that is eligible for the national school lunch program that was greater than 75% had higher rates of tooth decay (68.3%) compared to those schools whose student population that received this assistance was at 34.8%; a 9.6% difference.

Figure 32: Oral Health Subgroup Analysis



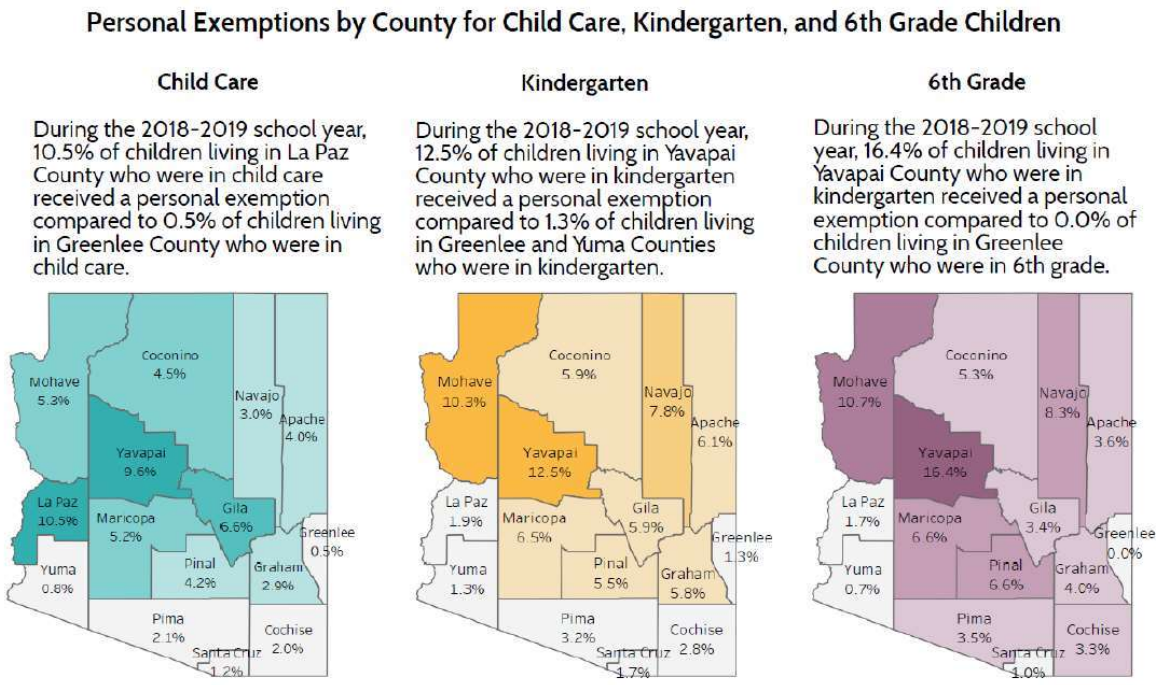
Since 2016, the child vaccination rate for the 7-vaccine series has been declining. The current vaccination rate for Arizona is 56.4%. Vaccines in this series include at least 4 doses of DTaP, 3 doses of Polio, 1 dose of measles, mumps, rubella (MMR), 3 doses of Hepatitis B (Hep B), 3 doses of Haemophilus influenzae type B (Hib), 1 dose of Varicella antigens, and 4 doses of Pneumococcal conjugate vaccine. This indicator behaves differently depending if the child resides in an urban vs rural county. Children residing in an urban county had a greater vaccination rate at 56.5% compared to rural county children at 52.5%. Nearly 2 out of 3 children with Medicaid Insurance completed the 7-vaccine series. Native Americans have the largest vaccination coverage rate at 65.4% compared to blacks at 51.4%.

Figure 33: Child Vaccinations Subgroup Analysis



State and local vaccination requirements for daycare and school entry are important tools for maintaining high vaccination coverage rates, and in turn, lower rates of vaccine-preventable diseases (measles,whooping cough, rubella, and others). The figure below displays child vaccination exemption rates by grade level.

Figure 34: Personal Exemptions by County and Grade Level



The child mortality rate for Arizona is 17.2 per 100,00 children, lower than the national estimate of 19.7 per 100,000 children. In 2019 a total of 131 child deaths occured whose primary causes of death include in ranking order: accidents (unintentional injuries); cancers; birth defects; assault (homicide); disease of the heart. Racial disparities exist with black and native american children carrying the largest burden for child mortality with rates of 31.9 and 32.5 per 100,000 children respectively compared to Latino's who have the lowest child mortality rate of 13.0 per 100,000 children.

Figure 35: Child Mortality Subgroup Analysis

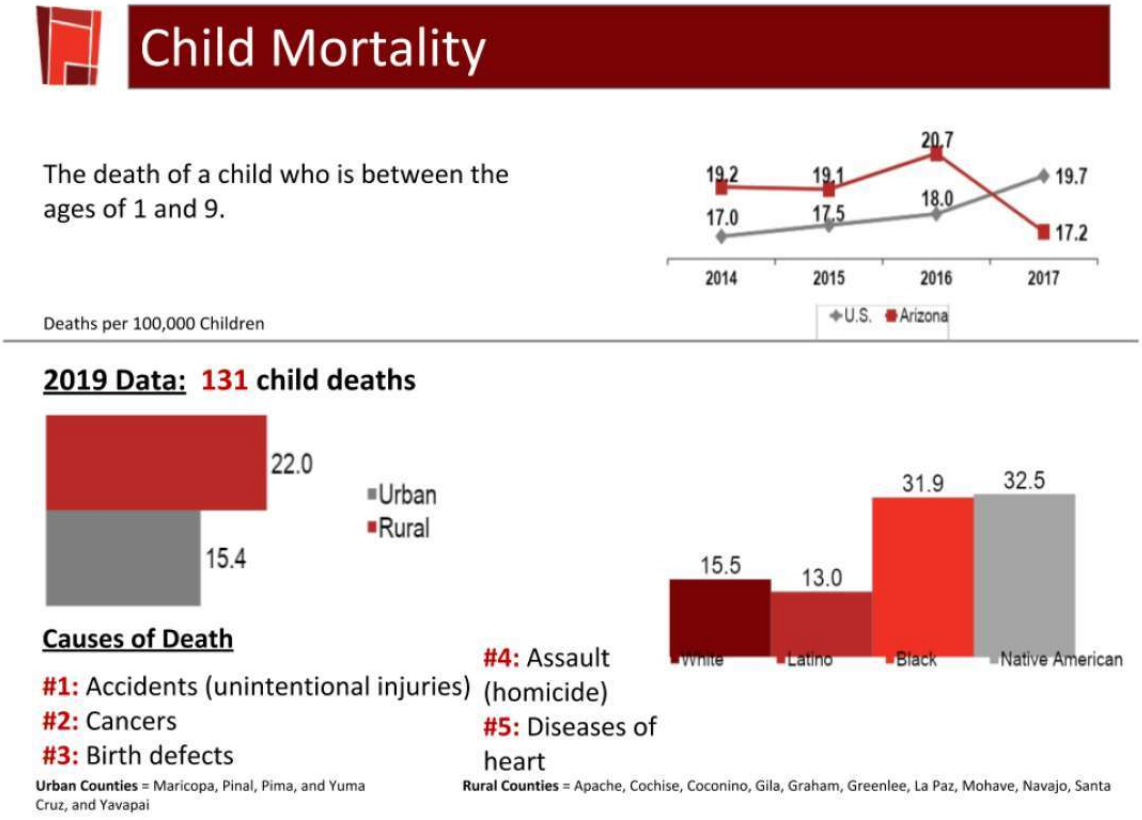


Table 11. demonstrates the top 5 services that were needed the most for children's health along with the top 3 barriers for not receiving the service.

Table 11. Most Needed Children's Health Services and Barriers to Care (from Public Survey data)

Identified Services	Barriers to Receiving Health Service (Top 3)
1 Child Care Services	1) Lacking health insurance 2) Not available in their area 3) Couldn't afford
2 Food and Nutrition Programs	1) Not available in their area 2) Lacking health insurance 3) Couldn't afford
3 Dental Care Services	1) Lacking health insurance 2) No childcare 3) Not available in their area
4 Primary Care Services	1) Lacking health insurance 2) No childcare 3) Not available in their area
5 Household Poisoning Prevention Services	1) Lacking health insurance 2) Couldn't afford 3) Not available in their area

The focus groups and community forums highlighted the need for oral health services to be established or continue to provide to children in low resource settings. In addition, food and nutrition programs were also highlighted from the focus groups and community forums. Child mental health was an emerging topic in a lot of the discussions. Childcare services is a large need that was voiced in both forums and focus groups.

Children with Special Healthcare Needs Health Status

In 2017-2018, 17.6% of children had a special healthcare need (CSHCN) in Arizona. This is approximately 1 in every 5 children. Analyzing health insurance adequacy approximately 2 in 3 CSHCN families report having adequate health insurance to support their medical expenses. Health insurance coverage was high at 92.6% of CSHCN families reporting having insurance consistently in the past year. CSHCN experienced more adverse childhood experiences compared to their non-CSHCN counterparts. For 2017-2018, 33.2% of CSHCN reported two or more ACEs which is higher than 19.6% for their non-CSHCN counterparts.

Figure 36: Children with Special Healthcare Needs Subgroup Analysis

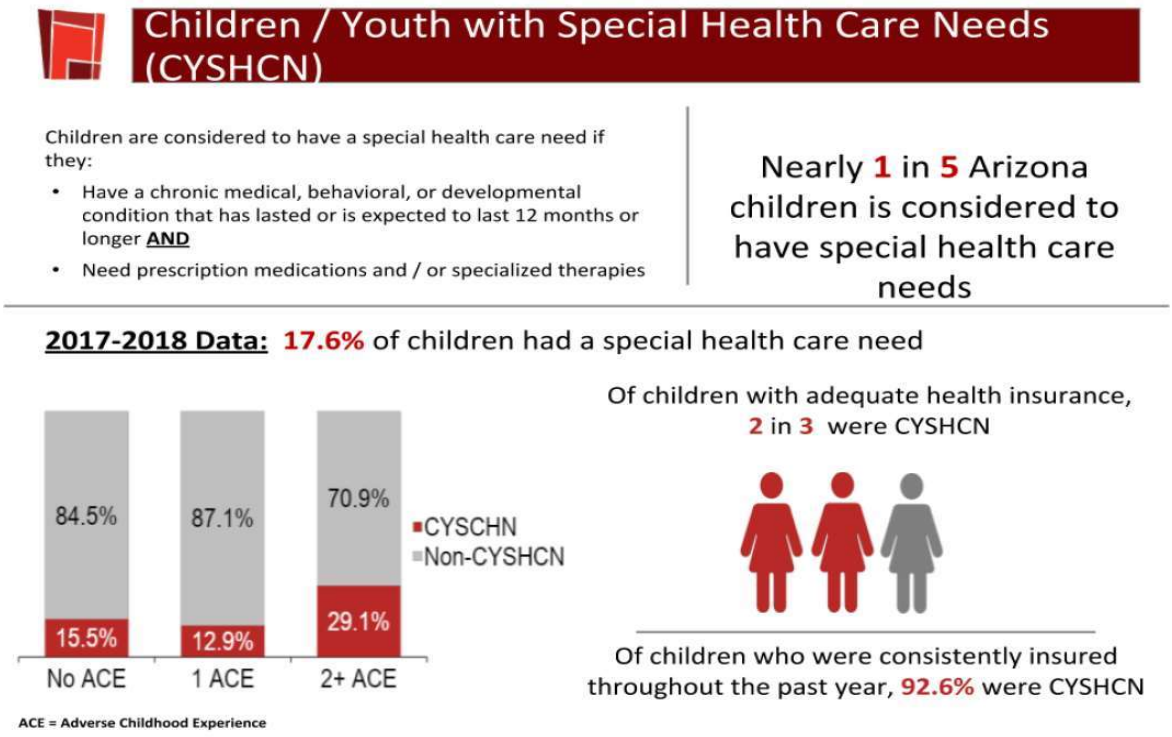


Table 12. demonstrates the top 5 services that were needed the most for children and youth with special health care needs along with the top 3 barriers for not receiving the service.

Table 12. Most Needed Health Services and Barriers to Care for for Children and Youth with Special Health Care Needs (from Public Survey data)

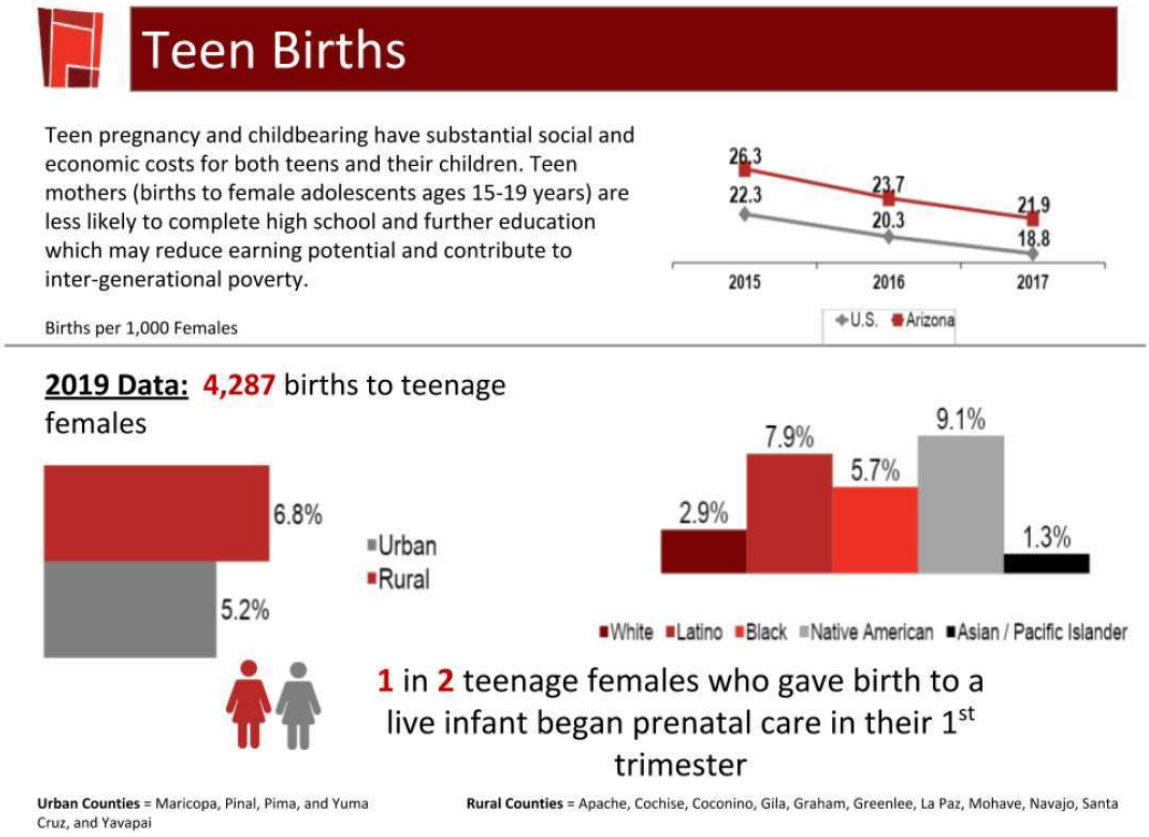
Identified Services	Barriers to Receiving Health Service (Top 3)
1 Access to Medical Home	1) Lacking health insurance 2) No childcare 3) Not available in their area
2 Access to Special Equipment	1) Lacking health insurance 2) Not available in their area 3) No childcare
3 Behavioral Services	1) Lacking health insurance 2) No childcare 3) Couldn't afford
4 Long term Care Services	1) Not available in their area 2) Lacking health insurance 3) No childcare
5 Developmental Delays Testing and Support Services	1) Lacking health insurance 2) Couldn't afford 3) Not available in their area

A lot of information was collected from the focus groups and community forum methodologies on priority items for CSHCN. A large need that came out of these discussions is the need for mental healthcare services for families since families have to manage complex medical needs in a health system that is complicated to navigate; along with juggling family life and special needs. Specific to school settings, more training, resources, and time for teachers to deal with special needs kids.

Adolescent Health Status

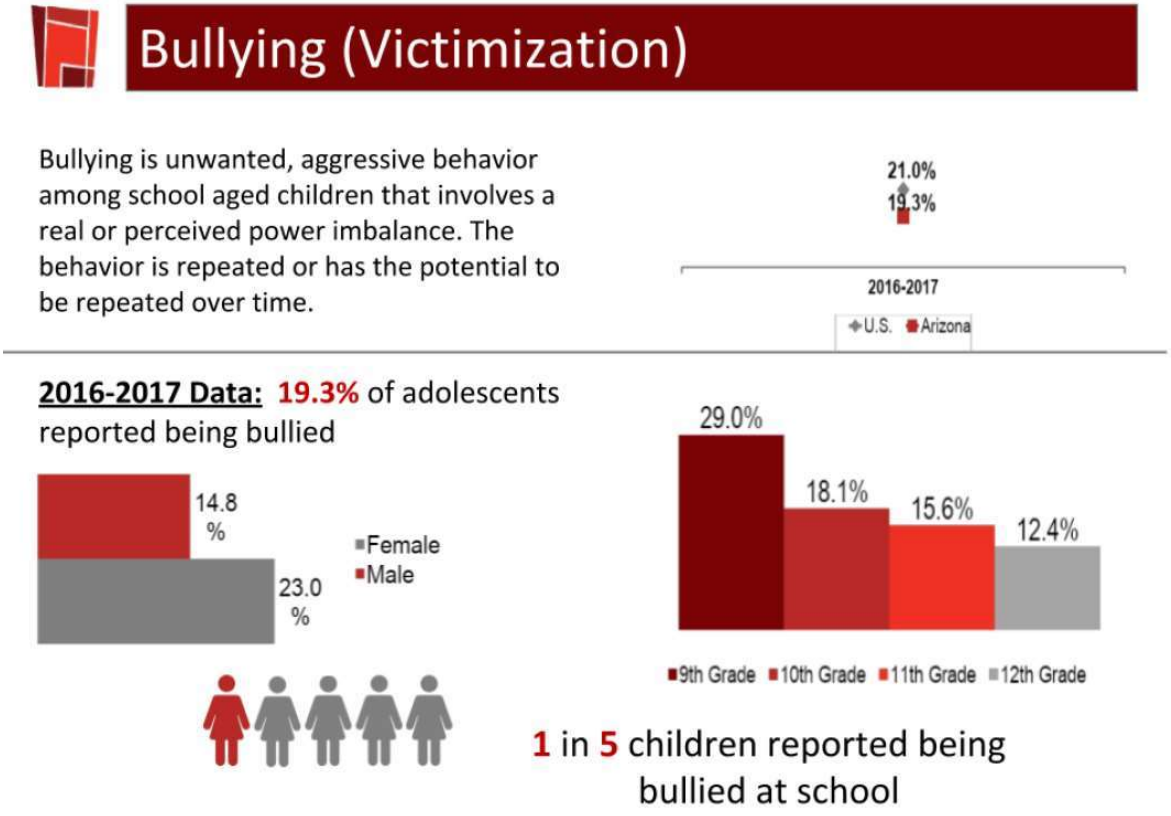
A success story on all fronts the teen birth rate continues to decline year by year with 2017 reporting the lowest rate for Arizona at 21.9 per 1,000 females (15-19 years). However, this rate is still larger than the national estimate of 18.8 per 1,000 females. In 2019 approximately 4,287 births were to teenage females. Disparities by race and geography remain for this indicator as a larger percentage of teen births in rural settings (6.8%) compared to urban settings (5.2%). Native American teenage females have a larger percentage of teen births at 9.1% and Asian/Pacific Islanders have the lowest percentage at 1.3%.

Figure 37: Teen Births Subgroup Analysis



Approximately 19.3% of adolescents report being bullied in Arizona. This rate is lower than the national estimate of 21.0%. However, disparities by gender and grade level (proxy for age) exists as a larger percentage of females report being bullied (23%) compared to males (14.8%). Adolescents entering high school in the 9th grade report being bullied at a higher percentage (29.0%) compared to 12th graders (12.4%).

Figure 38: Bullying (Victimization) Subgroup Analysis



Adolescent mortality has been on the rise since 2015. The 2017 adolescent mortality rate is 35.5 per 100,000 adolescents (10-19 yrs). This estimate surpassed the national estimate of 33.7 per 100,000 adolescents. In 2019, 394 adolescents died in Arizona. Disparities exist in this indicator by geography, gender, and race. Adolescents residing in urban counties had a larger adolescent mortality rate (42.0 per 100,000) compared to their rural counterparts (36.1 per 100,000 adolescents). Nearly 3 out of 4 adolescent deaths were males. Native American adolescents have the largest rate at 87.0 per 100,000 adolescents compared to non-Hispanic Whites at 36.7 per 100,000 adolescents. The top causes of death for adolescents were accidents (unintentional injuries), intentional self-harm (suicide); assault (homicide); cancer; and birth defects.

Figure 39: Adolescent Mortality Subgroup Analysis

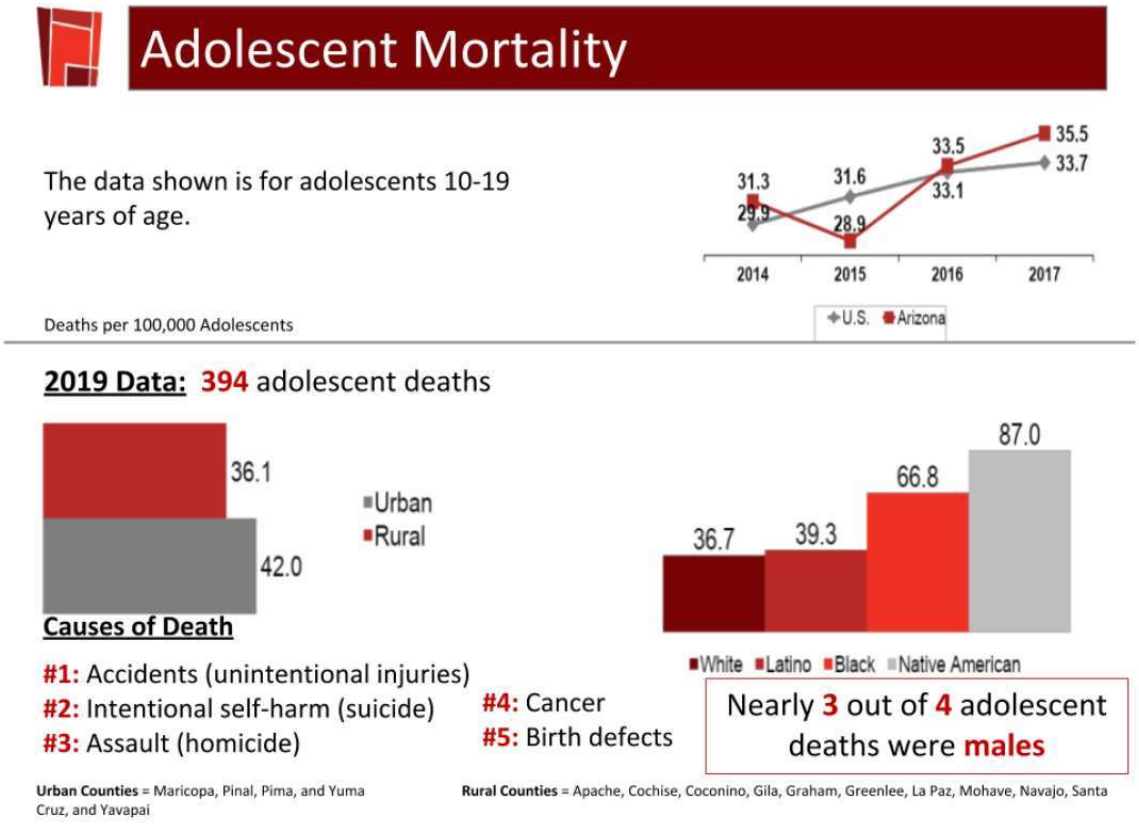


Table 13. demonstrates the top 5 services that were needed the most for children's health along with the top 3 barriers for not receiving the service.

Table 13. Most Needed Adolescent Health Services and Barriers to Care (from Public Survey data)

Identified Services	Barriers to Receiving Health Service (Top 3)
1 Rehabilitation Services for Substance use	1) Lacking health insurance 2) Couldn't afford 3) No childcare
2 Adolescent Driving Safety	1) Couldn't afford 2) Lacking health insurance 3) Not available in their area
3 Dental Care Services	1) Lacking health insurance 2) No childcare 3) Not available in their area
4 Housing	1) Lacking health insurance 2) Not available in their area 3) Couldn't afford
5 Transition to Adulthood Services	1) Couldn't afford 2) Lacking health insurance 3) Not available in their area

The community forums and the focus groups provided a lot of information as to the needs of adolescents. A prevalent conversation was on adolescent reproductive health specifically on contraception care and teenage pregnancy prevention and offering adolescents with a relatable and comprehensive sex education. Adolescents also mentioned the need for education and regulation on vaping products since it has become a normalized behavior. Mental health was another topic brought up by adolescents specifically on having educational programs to help families understand the severity of the issue; education and awareness for youth; and mental health care services for youth. Lastly the adolescents discussed how the lack of opportunities impact their health. Families can't afford the expenses associated with moving to a city with more opportunities and are limited to being in a space where there is lack of employment and college preparedness opportunities which ultimately affect their health.

Identifying Priority Needs and Linking to Performance Measures

Four separate methodologies were used to identify priority needs and link them to national performance measures. The community forums, described earlier, were one method; these forums allowed for regional priority needs to be identified and ranked by the level of need (low to high) and ability to change (easy to hard). Common priority needs were noted and presented to the steering committee during the July 24, 2020 priority setting meeting. The second and third methodologies are described in the two Tribal MCH Needs Assessments from the Inter Tribal Council of Arizona and Diné College/Navajo Nation assessment teams. The priority needs for Arizona's tribal communities were identified and ranked using distinct methodologies. The fourth method involved identification of statewide priority health areas by MCH population by the steering committee based on findings from the Title V MCH Needs Assessment during a meeting on July 24, 2020. These priorities were presented to the steering committee to ensure that the identified statewide priorities are inclusive of the tribe's input. The priority needs for tribal MCH are listed in Table 14.

Table 14. Identified priority needs from the tribal MCH needs assessments

Inter tribal Council of Arizona

- Limited or no deliveries in tribal communities, lack of obstetrics and gynecology specialists
- Limited or no dieticians available
- Certified Nurse Midwife
- Lack of transportation affects all areas
- Childhood injury
- Oral health among children and mothers
- Missed prenatal appointments

Diné College/Navajo Nation

Identified need to decrease

- Infant, child, adolescent, and maternal morbidities and mortalities
- Substance abuse, effects, and risky behaviors
- Sex trafficking and violence

Identified need to increase

- Access to health care: family planning/education, prenatalcare, infant, child, and adolescent care
- Support for breastfeeding mothers
- Mental health care access
- Access to early intervention and support services for children with disabilities and special health care needs
- Services and support related to family composition, displacement, and homelessness

Identified need to create

- Database to improve data driven decisions to focus on persons with special needs, experiencing violence, and environmental health issues

The identification and prioritization of needs began on February 27, 2020 with the first community forum and concluded with the second priority setting meeting on August 13, 2020. During this time the assessment team had to make significant modifications to the methodology to ensure the team and participant's safety given the COVID-19 pandemic. Efforts were made to ensure that engagement and participation in the process was not jeopardized and utilized new technologies (Zoom and PollEverywhere) to collect participant feedback instantaneousl

Regional Priority Needs

Community Forums opened with presentations on Arizona MCH status (based on quantitative data), and then participants were invited to ask questions and provide feedback. Next, we conducted a prioritization exercise to solicit participant inputs on MCH health issues in their communities. The prioritization exercise consisted of three stages:

1) Participants were divided into small groups and each group was asked to identify 5-7 individual issues in their communities.
2) The facilitation team grouped the individual issues that had been identified into categories
3) The facilitator invited participants to guide him in placing the categories on a two by two prioritization grid on a large board visible to all. The four sections of the grid were labelled along two dimensions: easier/harder to change and of higher/lower need (Figure 30. shows an example prioritization grid from one of the forums).

Spanish interpretation was available at all forums. For the community forums conducted virtually, PollEverywhere was used to identify priority needs and assess ability to address the identified needs. Figures 40 and 41 show how PollEverywhere was used during the Phoenix Virtual Community Forum.

Figure 40. Identification of priority via PollEverywhere

Figure 41. Prioritization Grid in PollEverywhere

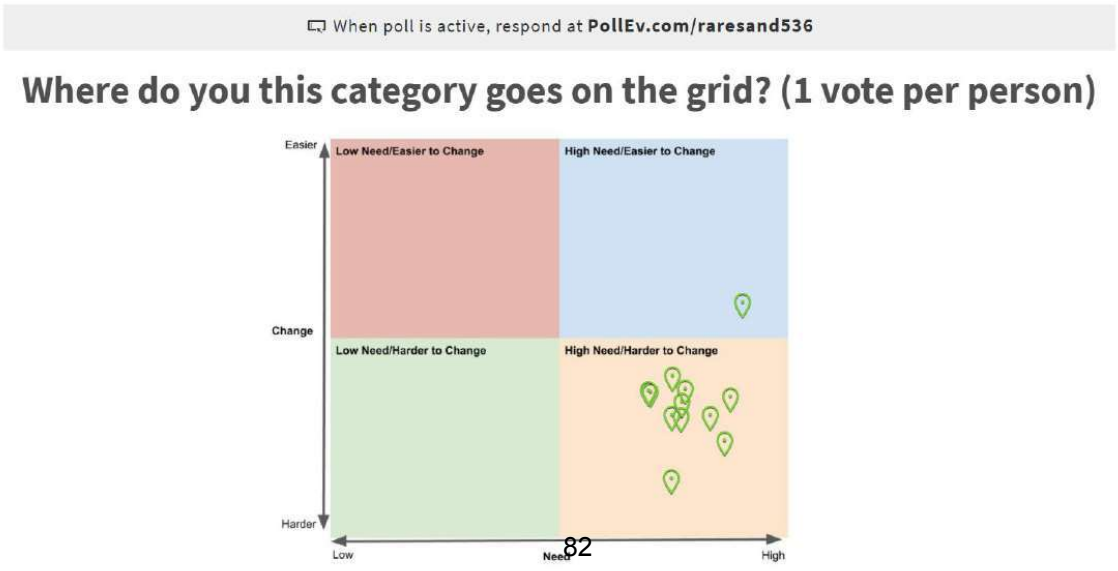


Table 15. includes prioritization trends from the community forums. The table includes top MCH health concerns identified through the forums with the level of need and ability to change along with its identified priority; and the number of community forums that identified that priority need.

Table 15. Prioritization trends from the community forums

Priority	No. of Forums
High Need/Harder to Change	
• Oral Health	8
• Mental Health	7
• Transportation	6
• Parent/Family Education & Support	6
• Collaboration Among Institutions	6
• Child Health Services especially for those with Special Health Care Needs	6
• Substance Abuse	5
High Need/Split in Easier and Harder to Change	
• Nutrition	6
• Child Care	6

Other priority needs that were not added to the table above but were discussed in less than 5 community forums include:

- Housing
- Resources
- Legal and Healthcare Systems, Racism
- Youth Programs
- Access to Care and Services
- Reproductive Health
- Immunization
- Language
- Increase Providers, Strengthen Institutions
- Bullying
- Domestic Violence
- Social Isolation
- Drowning Prevention
- Injury Prevention
- Trafficking
- Suicide
- Preventative Care
- Adult and Childhood Obesity
- Infant Mortality
- COVID-19
- Vaping

Statewide Priority Needs

The statewide priorities were identified and ranked by the steering committee. Prior to the July 24th meeting, the steering committee was asked to register for the event; within the registration, members had to let us know their MCH population domain preference. This helped the assessment team create breakout rooms during the meeting (held via Zoom) so that more focused conversation on a population domain could take place. The findings from all assessment methodologies were presented to the steering committee along with the HRSA Performance Measurement Framework and the list of selected National Performance Metrics for the 2021-2025 block grant cycle. Members were then separated into the different breakout rooms according to MCH population. Each breakout room was assigned a facilitator to lead the conversation that will identified priority needs for that population domain and a co-facilitator that was responsible for documenting the process using Google Jamboards. The steering committee was then reassigned to a different MCH population to identify additional needs. After priority needs were identified by the different breakout rooms, the lead facilitators created categories to group similar needs; these categories were then presented to the full group. Each breakout room also had an MCH epidemiologist assigned to respond to any questions regarding the data that had been presented. Figure 42 is a snapshot from a Google Jamboard showing identified priority needs for women's health.

Statewide Priority Needs, Cont.

Figure 42. Google Jamboard with Identified Priority Needs for Women's Health

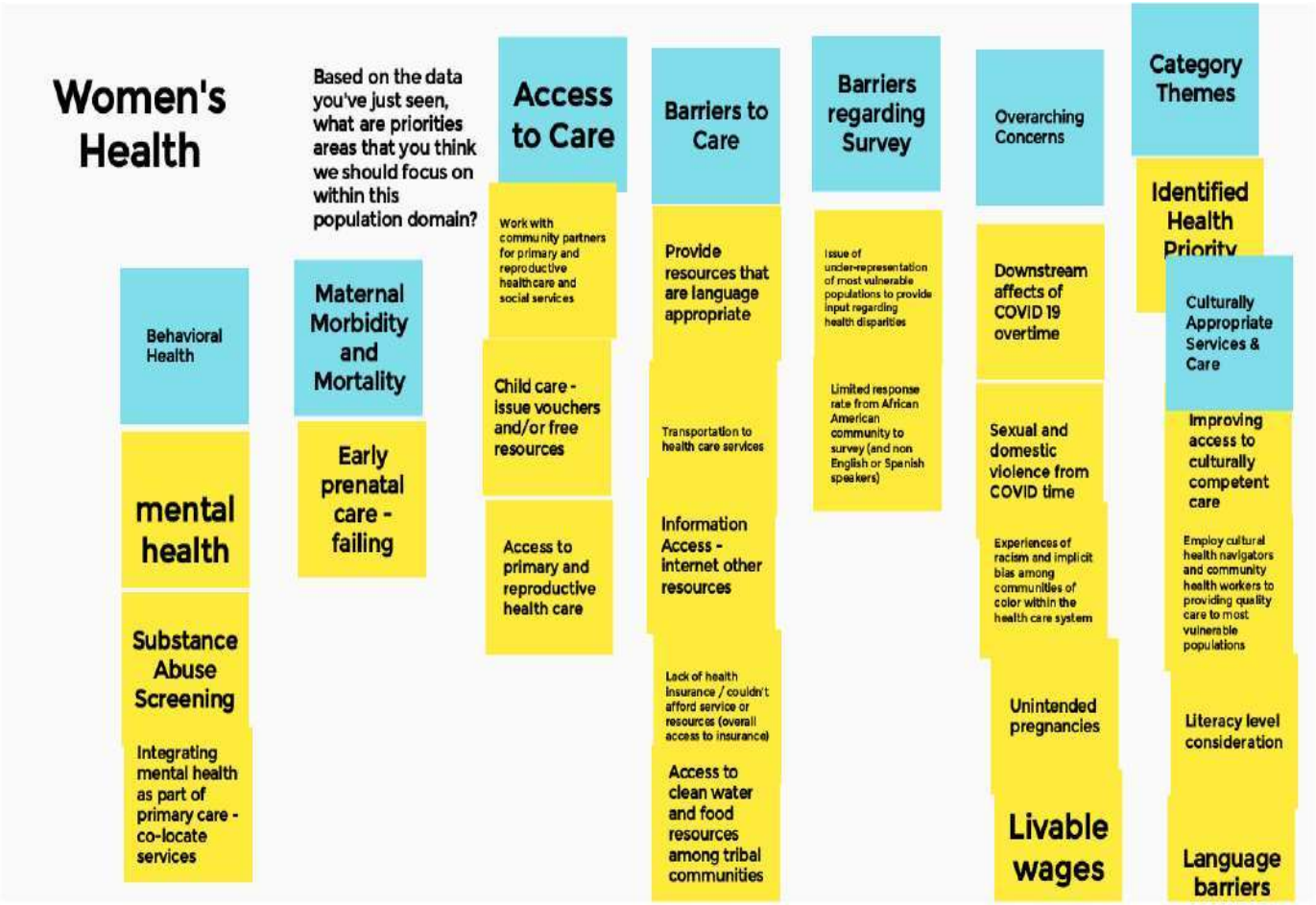


Table 16. includes the top two priority needs identified by the Steering Committee for each population domain during the voting exercise. These top 2 priority needs were used to draft the preliminary list of priorities.

Table 16. Top Priority Needs Identified by the Steering Committee, by Population Domain

Priority	Votes	% of Votes
Women's Health		
• Access to Care	20	28.6%
• Barriers to Care	19	27.1%
Infant Health		
• Appropriate Care for Mom and Baby Before and After Birth	23	33.8%
• Health Care Access	19	27.9%
Children's Health		
• Access to Care/Services	18	25.4%
• Mental Health	17	23.9%
Children's and Youth with Special Health Care Needs		
• School Setting Challenges	13	19.1%
• Child Care	12	17.6%
Adolescent Health		
• Factors that Contribute to Overall Well-Being	26	37.7%
• Comprehensive Sexual and Reproductive Health	17	24.6%

This information was used by the assessment team to draft preliminary priorities. A second priority setting meeting took place on August 13, 2020 where the finalized list of priorities was presented to the committee. In preparation for the August 13th meeting, steering committee members had an opportunity to review the preliminary priorities and provide feedback (satisfaction ranking and more detailed written feedback, if desired). A total of 30 members participated in this feedback exercise. Table 17. summarizes results showing that the majority of members were satisfied with the drafted priorities.

Table 17. Steering Committee Satisfaction on the Priorities

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied
Women/ Maternal	46.7	33.3	16.7	3.3	0
Infant/ Perinatal	50.0	30.0	16.7	3.3	0
Children	50.0	40.0	6.7	3.3	0
Children with Special Health Care Needs	60.0	26.7	10.0	3.3	0
Adolescent	50.0	36.7	6.7	3.3	3.3

The Title V Implementation Team made small revisions to the language of the priorities prior to the meeting based on suggestions from the Steering Committee that we received through this exercise. The revised priorities were then presented to the Steering Committee for their final approval during the August 13 meeting.

This meeting also provided us with an opportunity to engage the Committee on the topics of family engagement and health equity. Ms. Dawn Bailey, Family Engagement Specialist/AMCHP Family Delegate, gave a presentation on family engagement, as defined by the Title V Program, and led members in a discussion in which they discussed how their organizations currently engage families and ways they can add and strengthen family engagement in their programs. Ms. Teresa Manygoats, Office Chief for Health Equity and Population Health within the Bureau of Chronic Disease and Health Promotion, gave a presentation on health equity and led members in a discussion about what health equity means in the context of their work and how the programs we implement can do more to address current inequities.

2021-2025 Maternal and Child Health Priorities Selected and NPMS

In this way, we incorporated findings from the 2020 Needs Assessment and coordinated with the Steering Committee to develop the priorities listed in Table 26. In many ways, these priorities are a continuation of interventions and strategies that have been at the focus of our work for some time, yet we wanted to put a renewed and explicit emphasis on healthy equity and quality of service provision; for this reason, we included “equitable and optimal” in many of the priorities. Family engagement is also at the core of the new priorities as a mechanism through which health equity can be achieved.
A team of internal stakeholders had selected an initial list of National Performance Metrics (NPMs) and State Performance Measures (SPMs) in May 2020 so that we could move forward with drafting a scope of work for the MCH Health Arizona Families IGA that we have with the local county health departments.

This initial list was later supplemented with two additional NPMs selected by the counties during their Action Planning, and reviewed by the Steering Committee. After the selection of our priorities, we reviewed the draft list of NPMs to ensure they linked to our selected priorities. Table 18. shows our 2021-2025 priorities and their corresponding NPMs.

Table 18. 2021-2025 Statewide Maternal and Child Health Priorities and National Performance Measures (NPMs)

Population	Priority Statement	National Performance Metric
 Women/ Maternal	Reduce and eliminate barriers to ensure equitable and optimal health for women.	• NPM #1 - Well-woman visits • SPM #1 - Access to Care - Percent of adults without a usual source of care • NPM #13A - Preventive dental visits for pregnant women
 Infant/ Perinatal	Promote equitable and optimal care and protective factors for mothers and infants before, during, and after pregnancy.	• NPM #4 - Breastfeeding • NPM #5 - Safe Sleep
 Children	Strengthen emotional, physical, and social services to achieve equitable and optimal development for children.	• NPM #6 Developmental Screening • NPM #7.1 - Injury Hospitalization • NPM #13B - Preventive dental visits for children and adolescents
 Children with Special Health Care Needs	Strengthen systems of care to advance inclusivity and promote equitable and optimal outcomes for children and youth with special health care needs.	• NPM #12 Transition
 Adolescent	Enhance equitable and optimal initiatives that positively impact the emotional, physical, and social wellbeing of adolescents.	• NPM #7.2 - Injury Hospitalization • NPM #9 - Bullying • NPM #10 - Adolescent well visits
 Cross-cutting	Engage individuals, families, and communities as partners in the development and implementation of programs and policies to create people centered programs that promote health equity. Reduce disparities in infants and maternal morbidity and mortality.	

Conclusion

The 2020 Title V MCH Needs Assessment provides a clear direction and pathway for the Title V Program to move forward in the upcoming 5 years. The approaches that were used to identify the needs of all maternal and child health communities in the state continues to reveal gaps in access to care, limited health insurance coverage, scarcity in service provisions, and noticeable health disparities across race, age, and other social groups in the state. The development of new priorities and performance metrics have moved the direction of the Title V program to engage families and communities in an intentional manner to develop and adapt public health programming to meet the needs of communities. In addition, the assessment highlighted improved health outcomes statewide and demonstrated collaboration not only in the assessment of maternal and child health conditions but in-service provisions across different sectors, for example the State Health Assessment provides clarity as to the determinants of health and their effect on community health which lead to the revised Arizona Health Improvement plan. In addition, the establishment of a steering committee to the assessment has created a potential group of local and statewide efforts for the Title V Block Grant program to receive guidance and steering on its action plan implementation and ongoing monitoring and evaluation. It is clear that ADHS/BWCH depends on the collaborations and engagement of stakeholders to promote the health of maternal and child health populations. In order for Arizona's Title V Program to continue to make positive strides in this work improvements to its overall capacity should occur. The CAST-5 gave BWCH an opportunity to self-reflect on its capacity to support the MCH populations with respect to the 10 essential MCH services and identify ways to improve workforce development over the next five years (Figure 43).

Figure 43. Essential MCH Services

1) Assess and monitor maternal and child health status to identify and address problems

2) Diagnose and investigate health problems and hazards affecting women, children, and youth.

3) Inform and educate the public and families about maternal and child health issues

4) Mobilize community partnership between policy makers, health care providers, families, the general public and others to identify and solve maternal and child health problems.

5) Provide leadership for priority setting, planning and policy development to supprt community efforts to assure the health of women, children, youth and their families.

6) Promote and enforce legal requirements that protect the health and safety of women, children, and youth, and ensure public accountability for their well-being.

7) Link women, children and youth to health and other community and family services and assure access to comprehensive, quality systems of care.

8) Assure the capacity and competency of the public health and personal health workforce to effectively and efficiently address maternal and child health needs.

9) Evaluate the effectiveness, accessibility, and quality of personal health and population-based maternal and child health services.

10) Support research and demonstrations to gain new insights and innovative solutions to maternal and child health-related problems.

Through the CAST-5 assessment of ADHS's capacity with respect to the 10 essential MCH services, we identified both strengths and weaknesses that ADHS possesses in carrying out key MCH program functions. Results from this methodology showed that ADHS's Bureau of Women's and Children's Health (BWCH) demonstrates strengths in essential MCH services #1, 2, 5, and 10. The internal evaluation ranked ADHS's capacity to address these services "substantially to fully adequately" but ranked our capacity to address services #4, 7, 8, and 9 as "partially to minimally adequate." A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of our weaker essential services, conducted with the Office Chiefs, resulted in the recommendations to improve Title V Program Capacity. Figure 44 shows the essential service with recommendations for improvement.

Figure 44. ADHS Areas of Weakness on the 10 Essential MCH Services and Recommendations for Improvement (2020)

MCH Essential Services	Recommendations for Improvement
4) Mobilize community partnership between policy makers, health care providers, families, the general publc and others to identify and solve maternal and child health problems.	Capitalize on and fostering the existing relationships with the organized bodies such as the Governor's Goal Council, non-profit partnerships, and community advocacy groups in a deliberate effort to enhance opportunities for indirect political influence should be prioritized for future capacity development. Further, BWCH can work on refinements in program procedures and policies to better streamline services to communities in need. These efforts will further awarenes on emerging maternal and child health issues.
7) Link women, children and youth to health and other community and family services and assure access to comprehensive, quality systems of care.	Efforts to strengthen communication strategies, data and information sharing, and collaboration with the AHCCCS (Medicaid) and other insurers is recommended. This collaboration could be done by establishing better mechanisms for sharing information within the Bureau when members participate in insurance related activities, and also by seeking out opportunities to engage additional stakeholders in the AHCCCS Medical Policy Manual (AMPM).
8) Assure the capacity and competency of the public health and personal health workforce to effectively and efficiently address maternal and child health needs.	Efforts in this area should focus on capacity building, such as enhancing communication, collaboration, and workforce data sharing with federal, state, and local agencies and higher academic institutions. These efforts should focus on mechanisms for the state to have input into Labor Force Training and needs, particularly with public health and social work programs. It is also recommended that the Bureau partner with academic institutions in identifying projects for students to support.
9) Evaluate the effectiveness, accessibility, and quality of personal health and population-based maternal and child health services.	In order for the Title V Program to effectively evaluate the effectiveness, accessibility, and quality of MCH services, provider outcomes and quality performance data must be evaluated and shared between providers, insurers, and the Bureau. The Bureau should be involved in the decision-making process of AHCCCS (Medicaid) and other insurance providers and should be invited to discussions related to coverage of services contained in the AHCCCS Medical Policy Manual (AMPM).

In addition to enhancing its capacity and the capacity of its stakeholders the Arizona Title V Program intends to promote and increase the number of Young Adult and Family Advisors participation and involvement in this agency and other community partner's workgroups, committees, task forces, trainings and presentations. Lastly the Title V Program chose to include a healthy equity and optimal health statements as part of their new priorities. The needs assessment showed that low-income and racial/ethnic minority women and children consistently face disparities in access to care, quality of care, and health outcomes. Thus, the inclusion of 'equitable and optimal health' in each priority statement is intentional to demonstrate BWCH's commitment to health equity to ensure that all population groups have an opportunity to achieve optimal health. BWCH follows CDC's National Center for Chronic Disease Prevention and Health Promotion's definition of health equity:

"Health equity is achieved when every person has the opportunity to attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances." Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment."

— National Center for Chronic Disease Prevention and Health Promotion

Family engagement is at the core of the new priorities and is a mechanism through which health equity can be achieved. Family engagement is an authentic partnership between professionals and family leaders, who reflect the diversity of the communities they represent, working together at the systems level to develop and implement better policies and practices. The Tile V Program also restructured its priority statements to include statements specific to health equity and family engagement.

Therefore, the program will continue to build on the established partnerships with the various agencies, networks, coalitions, families and consumers described above, in addition to reaching out to new partners. The program's initiatives are richer and more impactful as a result of the collective knowledge, resources and skills each of our partner agencies, family members and consumers contribute to improving the health of women and children in Arizona.

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Appendices - MCH Indicators

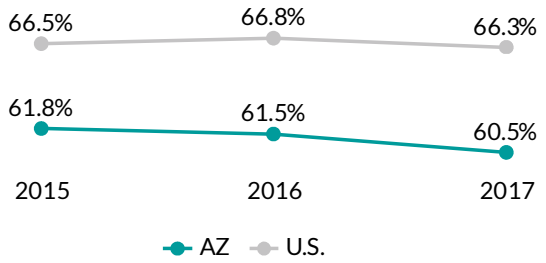
- Adolescent Mortality
- Adolescent Suicide
- Adolescent Well Visits
- Autism Spectrum Disorder
- Bullying
- Child Mortality
- Child Vaccination
- Child Vaccination Exemptions
- Children with Special Health Care Needs
- Early Elective Delivery
- Early Prenatal Care
- Early Term Birth
- Flu Vaccination
- Health Insurance Coverage
- HPV Vaccination Female
- HPV Vaccination Male
- Infant Mortality
- Low Birth Weight
- Maternal Mortality
- Neonatal Abstinence Syndrome
- Newborn Screening
- Overall Health Status
- Received Needed Health Care
- Severe Maternal Mortality
- Tdap Vaccination
- Teen Births
- Tooth Decay/Cavities
- Well Woman Visits

Well Woman Visit

Significance

A well woman or preconception visit provides a critical opportunity to receive recommended clinical preventive services, including screening, counseling, and immunizations, which can lead to appropriate identification, treatment, and prevention of disease to optimize the health of women (ages 18-44) before, between, and beyond potential pregnancies. For example, screening and management of chronic conditions and counseling to achieve a healthy weight and smoking cessation can be advanced within a well woman visit to promote women's health prior to and between pregnancies and improve maternal and perinatal outcomes.

Data Source: http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Gynecologic-Practice/Well-Woman-Visit



Trend Analysis (2015-2017)

Data Source: Arizona Behavioral Risk Factor Surveillance System, 2015-2017

This analysis compares the Arizona trend to the U.S. trend in well woman visits from 2015-2017. Arizona's rate and the U.S. rate has slightly decreased; Arizona's rate has been consistently lower than the rate of the U.S. In 2017, Arizona's well woman visit rate was 60.5% of women ages 18-44 years compared to the U.S. rate of 66.3% of women ages 18-44 years.

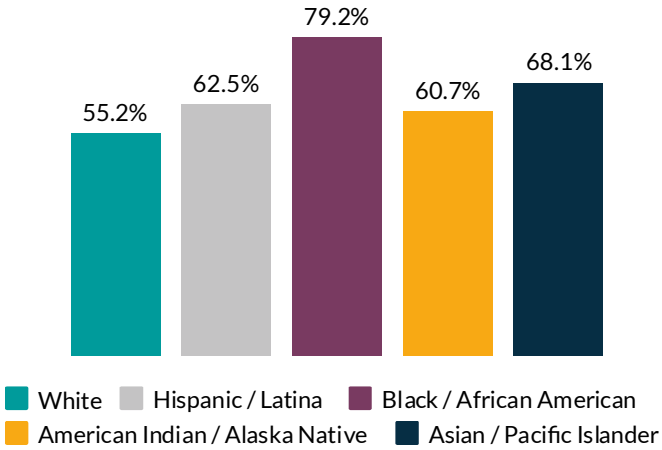
Arizona Analysis (2017)

Data Source: Arizona Behavioral Risk Factor Surveillance System, 2017

Arizona Well Woman Visit Rate = 60.5% of Women Ages 18-44 Years

Race / Ethnicity

Approximately 79.2% of Black / African American women had their annual well woman visit; whereas 55.2% of White women had their annual well woman visit.



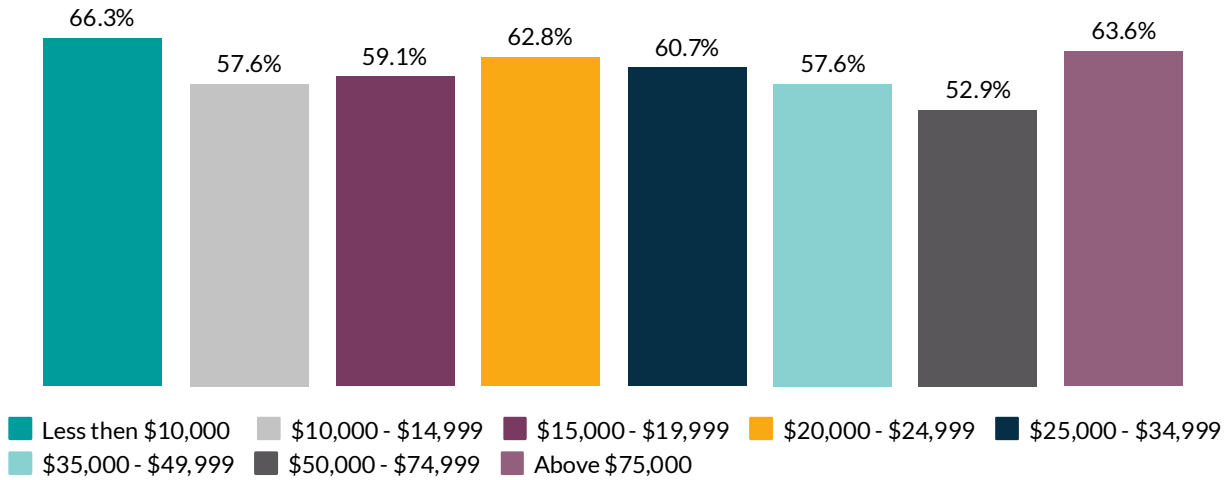
Geography

Approximately 61.4% of women living in urban counties and 60.3% of women living in rural counties had their annual well woman visit.

Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Income

Approximately 66.3% of women who had an income less than $10,000 per year had their annual well woman visit; whereas only 52.9% of women who had an income of $50,000-$74,999 had their annual well woman visit.

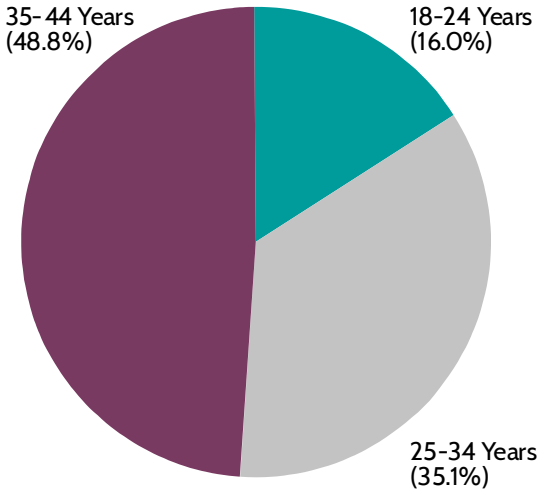


See Reverse Side for Additional Information

Well Woman Visit

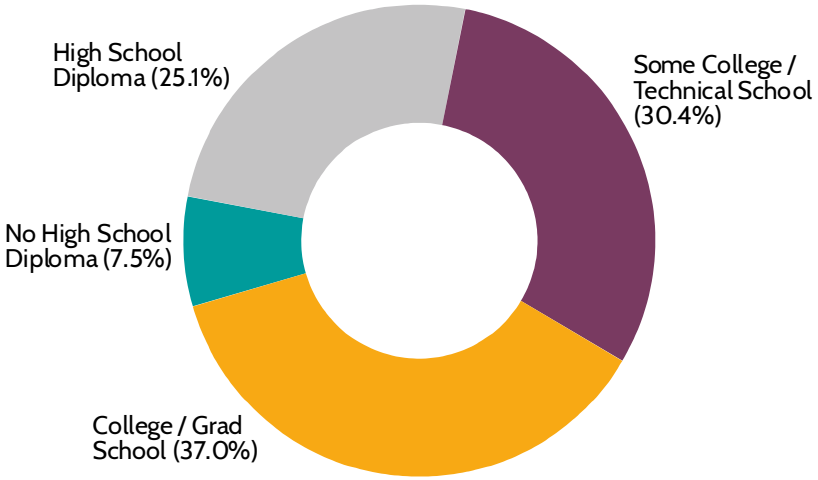
Age

Of the women who completed their well woman visit, 48.8% were ages 35-44 years, 35.1% were ages 25-34 years, and 16.0% were ages 18-24 years.



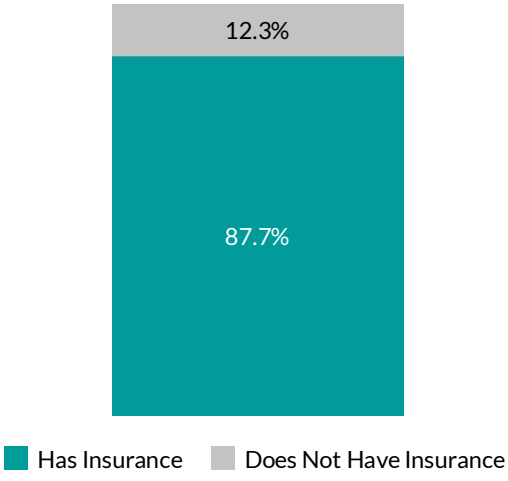
Education

Of the women who had their annual well woman visit, 37.0% received college / grad school education, 30.4% had some college / technical school education, 25.1% had a high school diploma, and 7.5% had less than a high school education.



Insurance

Of all the women who had an annual well woman visit, 87.7% had insurance while 12.3% of women did not have insurance.



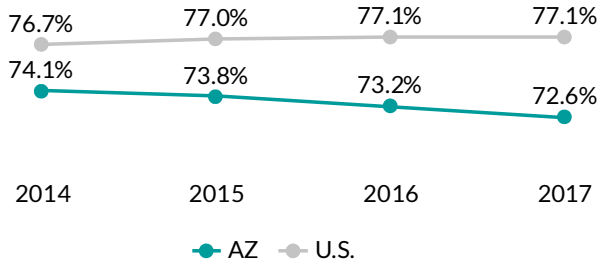
See Reverse Side for Additional Information

Maternal and Child Health Indicator

Early Prenatal Care

Significance

Early prenatal care (receiving care during the first trimester of pregnancy) is essential for identification of maternal disease and risks for pregnancy or birth complications. This can help ensure that women with complex problems, chronic illness, or other risks are seen by specialists. Early prenatal care can also provide important education and counseling on modifiable risks in pregnancy, including smoking, drinking, and inadequate or excessive weight gain.



Data Sources:
Centers for Disease Control and Prevention. Pregnancy and prenatal care.
Centers for Disease Control and Prevention. Recommendations to improve preconception health and health care—United States. MMWR Recommendations and Reports. 2006;55(RR-06):1–23.

Trend Analysis (2014-2017)

Data Source: National Vital Statistics System, 2014-2017

This analysis compares the Arizona trend to the U.S. trend in early prenatal care from 2014-2017. Arizona's rate has been slightly declining and has been consistently lower than the rate of the U.S. In 2017, Arizona's rate was 72.6% compared to the U.S. rate of 77.1%.

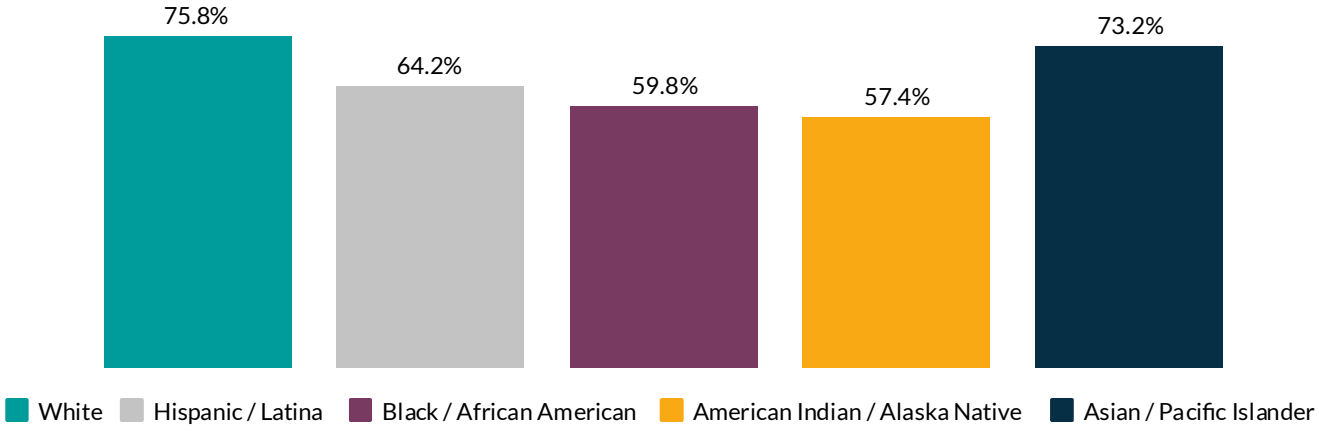
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Early Prenatal Care Rate = 68.9% of Women Who Had A Live Birth

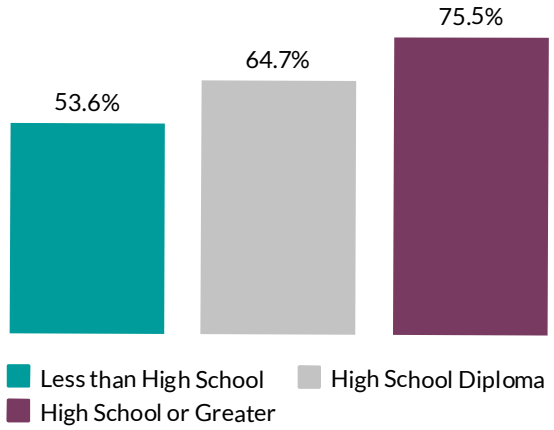
Race / Ethnicity

Approximately 74.6% of White women who had a live birth obtained early prenatal care; whereas 59.4% of all American Indian / Alaska Native women who had a live birth received early prenatal care.



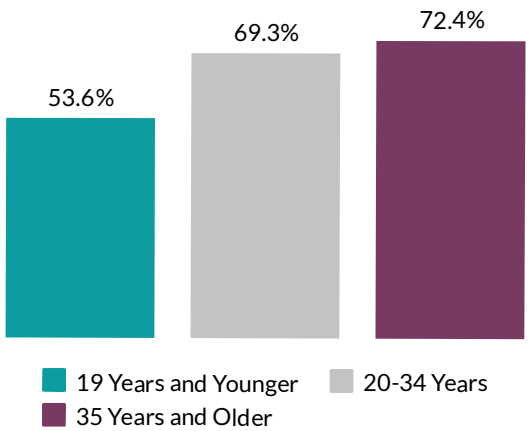
Maternal Education

Approximately 75.5% of women with a high school degree or greater, who had a live birth, received early prenatal care; whereas only 53.6% of women with less than a high school degree, who had a live birth, received early prenatal care.



Maternal Age

Of women ages 35 years and older, 72.4% who had a live birth received early prenatal care, while 53.6% of women ages 19 years and younger who had a live birth received early prenatal care.

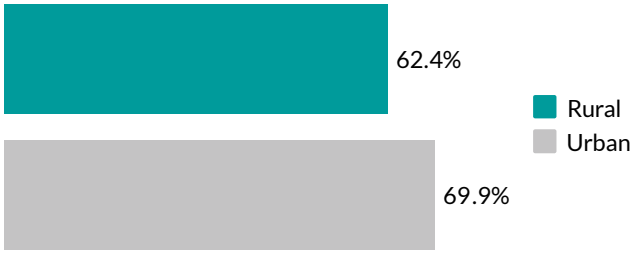


See Reverse Side for Additional Information

Early Prenatal Care

Geography

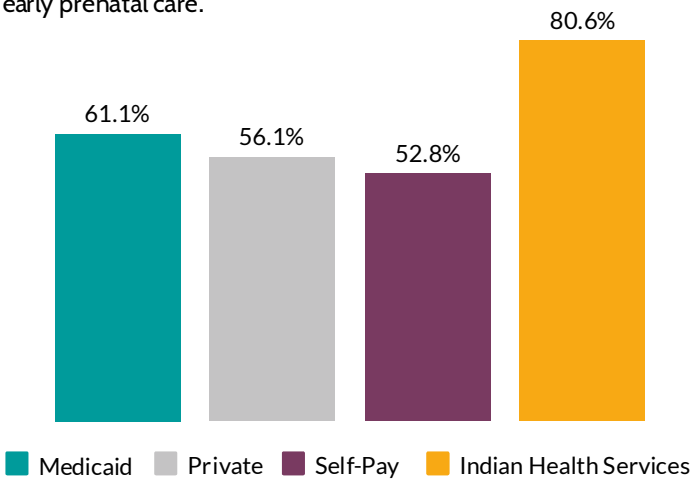
Of all urban women who had a live birth, 69.9% received prenatal care whereas 62.4% of all rural women who had a live birth obtained prenatal care.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer for Birth

Approximately 80.6% of women with Indian Health Services as the payer, who had a live birth, received early prenatal care; while 52.8% of women who self-paid, who had a live birth, received early prenatal care.



See Reverse Side for Additional Information

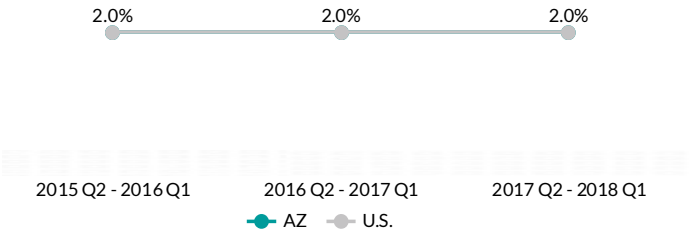
Maternal and Child Health Indicator

Early Elective Delivery

Significance

Non-medically indicated early term births (early elective deliveries) by scheduled cesarean section or medical induction (37 or 38 weeks gestation) can lead to risks of neonatal morbidity and costly neonatal intensive care unit (NICU) admissions.

Data Sources:
Tita AT, Landon MB, Spong CY et al. Timing of Elective Repeat Cesarean Delivery at Term and Neonatal Outcomes. N Engl J Med. 2009 Jan 8. 360(2): 111-20.
Clark SL, Miller DD, Belfort MA et al. Neonatal and Maternal Outcomes Associated with Elective Term Delivery. Am J Obstet Gynecol. 2009 February. 200(2):156.e1-4.



Trend Analysis (2015-2018)

Data Source: CMS Hospital Compare, 2015-2018

This analysis compares the Arizona trend to the U.S. trend in early elective deliveries from the second quarter of 2015 to the first quarter in 2018. Arizona and the U.S. have held steady at 2.0%

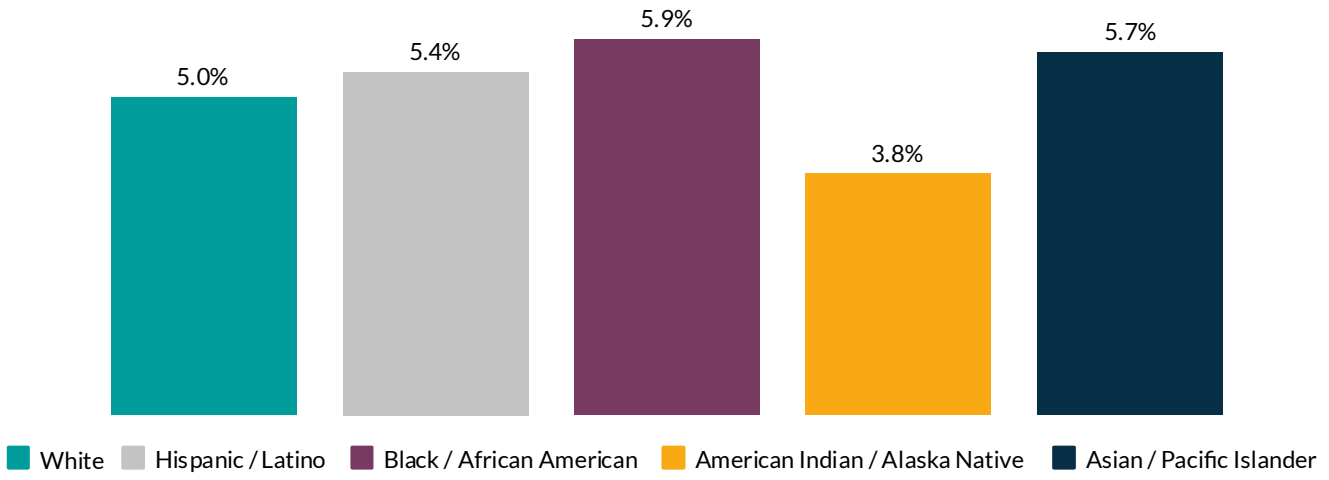
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Early Elective Delivery Rate = 5.2%

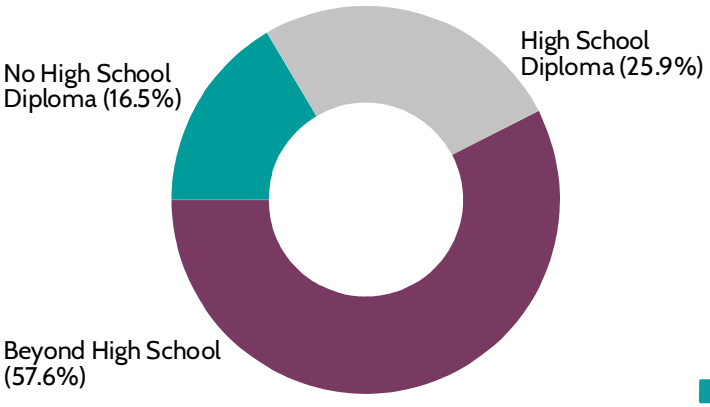
Race / Ethnicity

Approximately 5.9% of all live births to Black / African American women were early elective deliveries; whereas only 3.8% of all live births to American Indian / Alaska Native women were early elective deliveries.



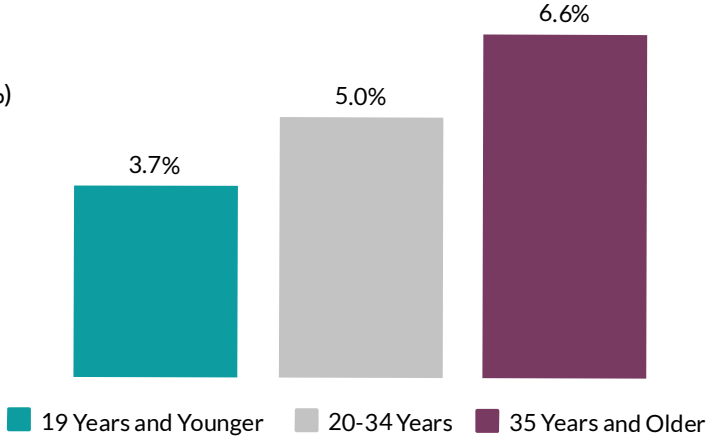
Maternal Education

Roughly 57.6% of women who had an early elective delivery had post-high school education. Over one-quarter (25.9%) of women received a high school diploma while less than one-fifth (16.5%) had less than a high school education.



Maternal Age

Approximately 6.6% of live births to women ages 35 years and older were early elective deliveries, while 3.7% of live births to women ages 19 years and younger were early elective deliveries.

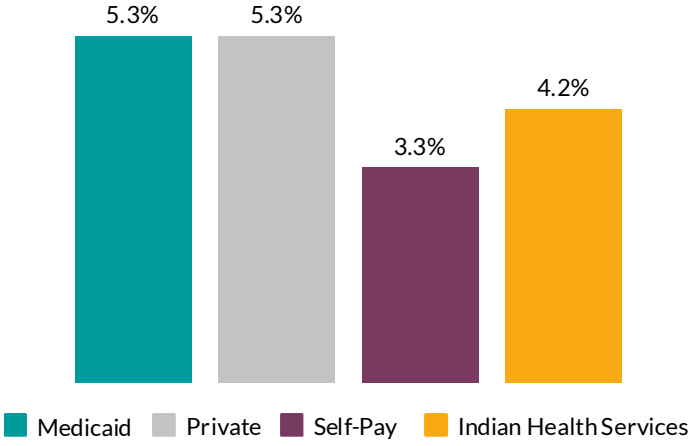


See Reverse Side for Additional Information

Early Elective Delivery

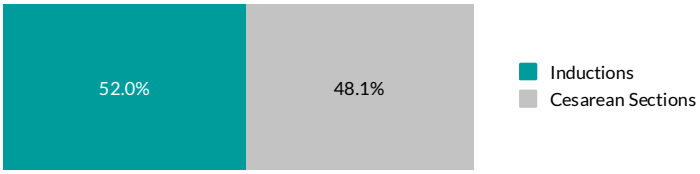
Payer for Birth

Approximately 5.3% of live births paid by Medicaid and Private insurance were early elective deliveries, while 3.3% of live births that were self-paid were early elective deliveries.



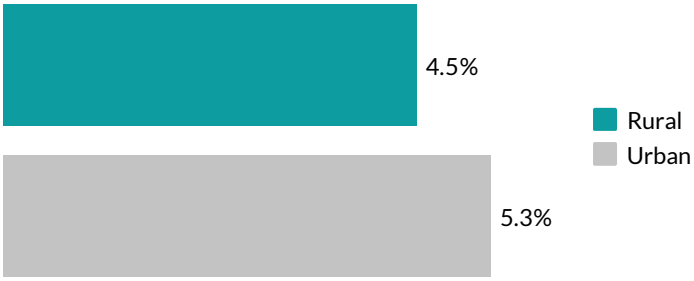
Inductions vs. Cesarean Sections

Of all early elective deliveries, 52.0% were via induction while 48.1% were via Cesarean section.



Geography

Of all urban live births, 5.3% were early elective deliveries whereas 4.5% of all rural live births were early elective deliveries.



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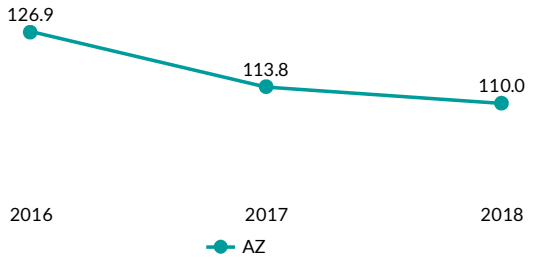
See Reverse Side for Additional Information

Maternal and Child Health Indicator

Severe Maternal Morbidity (SMM)

Significance

Severe Maternal Morbidity (SMM) includes unexpected outcomes of labor and delivery that lead to significant short- or long-term consequences to a woman's health. Some of these unexpected pregnancy, delivery, and postpartum complications are hemorrhage, organ failure, and stroke. Suffering from SMM may result in an extended hospital stay, major surgery, other medical interventions, or death. SMM does not only affect the health of women, as their fetuses / neonates may suffer adverse outcomes like low birth weight, premature birth, or even death.



Data Source: https://azdhs.gov/prevention/womens-childrens-health/index.php#mmm-az-meetings-home

Trend Analysis (2016-2018)

Data Source: Severe Maternal Morbidity in Arizona 2016-2018: An Analysis of Singleton Delivery Hospitalizations Using Arizona Birth and Hospital Discharge Data.

This analysis shows the Arizona trend in SMM from 2016-2018. The Arizona rate has been declining from 2016-2018, In 2018, Arizona had an SMM rate of 110.0 per 10,000 delivery hospitalizations.

Arizona Analysis (2016-2018)

Data Source: Severe Maternal Morbidity in Arizona 2016-2018: An Analysis of Singleton Delivery Hospitalizations Using Arizona Birth and Hospital Discharge Data.

Arizona SMM Rate = 117.1 per 10,000 Delivery Hospitalizations

Most Common SMM Diagnosis Indicators

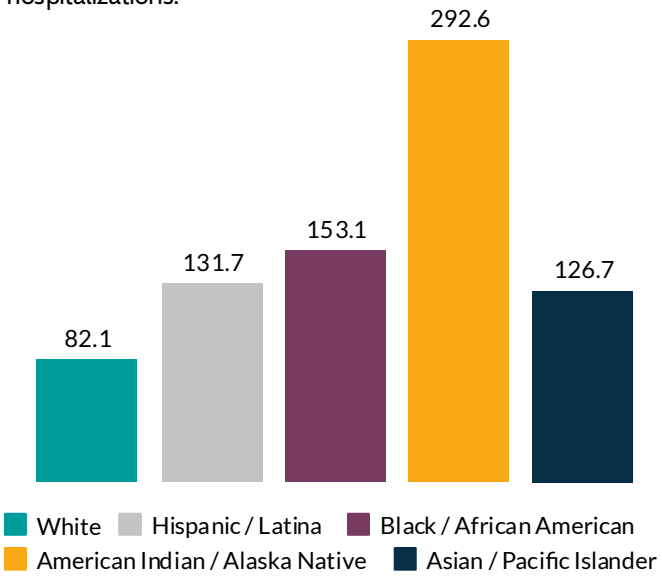
The top five common SMM diagnosis indicators were: adult respiratory distress syndrome (8.1%), sepsis (8.1%), disseminated intravascular coagulation (7.9%), acute renal failure (7.3%), and pulmonary edema (5.6%). These are not mutually exclusive (i.e. a woman could have more than one).

Most Common SMM Procedure Indicators

The top four common SMM procedure indicators were: blood transfusion (64.6%), hysterectomy (7.8%), ventilation (4.1%), and conversion of cardiac rhythm (0.7%). These are not mutually exclusive (i.e. a woman could have more than one).

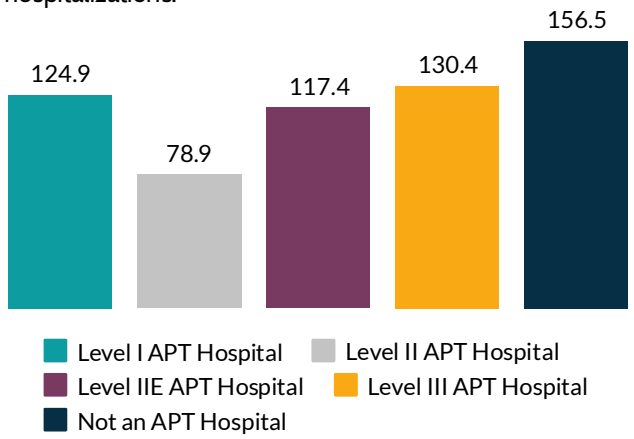
Race / Ethnicity

SMM disproportionately affects American Indian / Alaska Native women. Among this group, the rate of SMM was 292.6 per 10,000 delivery hospitalizations; whereas among White women the rate of SMM was 82.1 per 10,000 delivery hospitalizations.



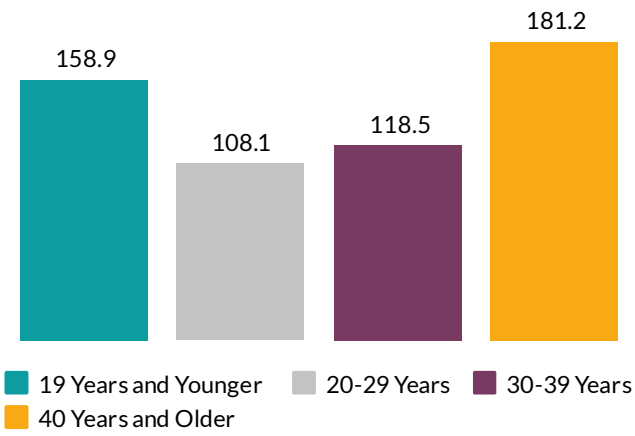
SMM Rate by Perinatal Level of Care

Women who did not deliver at an Arizona Perinatal Trust (APT) hospital had the highest SMM rate at 156.5 per 10,000 delivery hospitalizations.



Age

The highest rate of SMM was among women 40 years of age and older at a rate of 181.2 per 10,000 delivery hospitalizations.

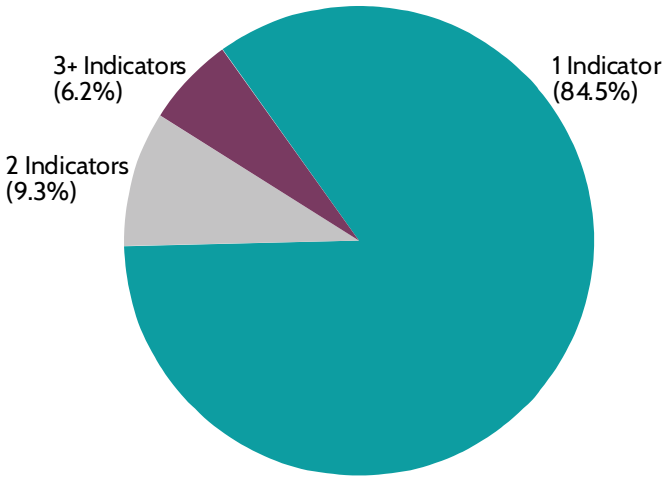


See Reverse Side for Additional Information

Severe Maternal Morbidity (SMM)

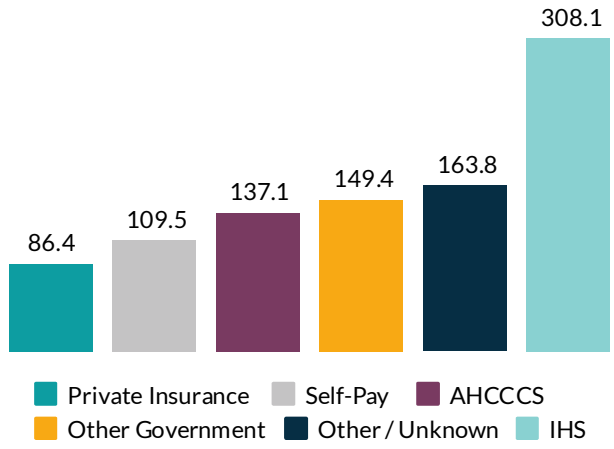
Distribution of SMM Indicators

The majority (84.5%) of SMM cases had one SMM indicator out of a total of 21 SMM indicators.



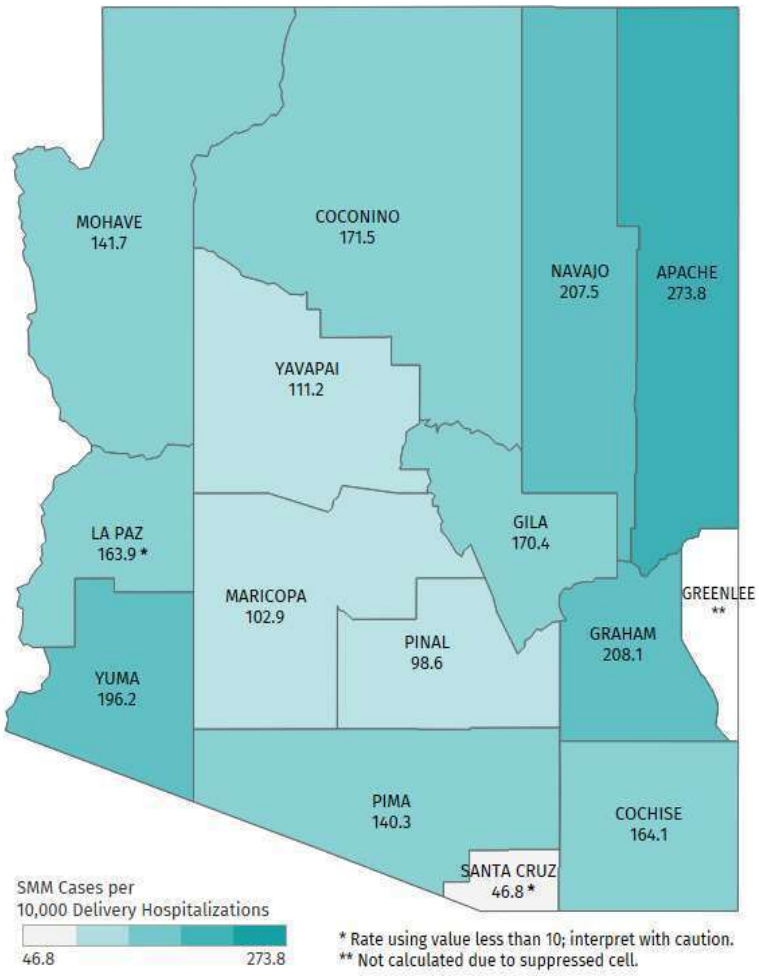
Payer

Women with Indian Health Service (IHS) as a payer had an SMM rate of 308.1 per 10,000 delivery hospitalizations while women with private insurance had an SMM rate of 86.4 per 10,000 delivery hospitalizations.



Geography

Women who lived in Apache County had an SMM rate of 273.8 per 10,000 delivery hospitalizations while women who lived in Pinal County had an SMM rate of 98.6 per 10,000 delivery hospitalizations.



See Reverse Side for Additional Information

Maternal Mortality

Significance

Maternal deaths can be prevented or reduced by improving underlying maternal health as well as health care quality for leading causes of maternal death, such as hemorrhage and preeclampsia. Maternal deaths include both **pregnancy-associated death** (defined as "the death of a woman while pregnant or within one year of pregnancy, and the cause of death was not directly related to pregnancy") and **pregnancy-related death** (defined as "the death of a woman while pregnant or within one year of termination of pregnancy, from any cause related to or aggravated by her pregnancy or its management, but not from any other cause of death".

Data Sources:
MacDorman MF, Declercq E, Cabral H, Morton C. Obstet Gynecol. 2016 Sep;128(3):447-55.
CDC Pregnancy Mortality Surveillance System. Division of Reproductive Health. National Center for Chronic Disease Prevention and Health Promotion. 2017.
Arizona Maternal Mortality Review Program, Program Report, 2012-2015.

Arizona Analysis (2012-2015)

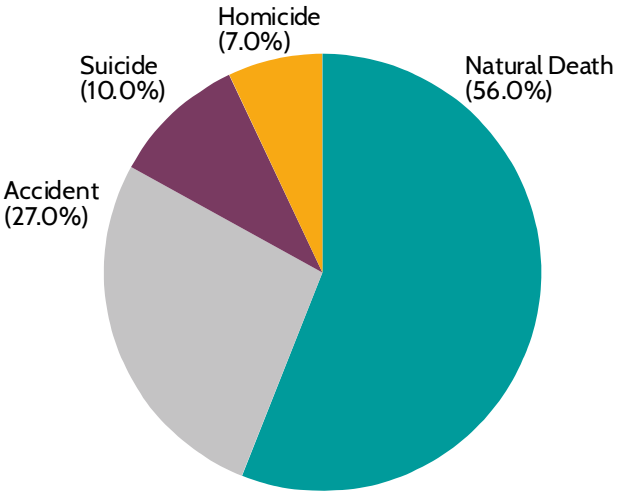
Data Source: Arizona Maternal Mortality Review Program, Program Report, 2012-2015.

Arizona Maternal Mortality Rate = 25.0 per 100,000 Live Births

Rate includes pregnancy-related and pregnancy-associated deaths

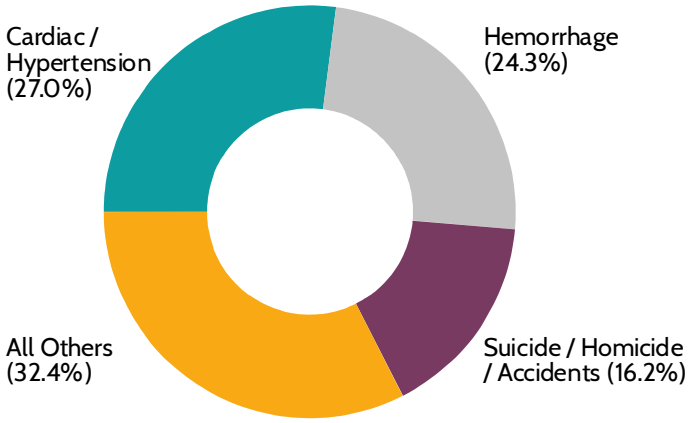
Causes of Death

This combines pregnancy-related and pregnancy-associated causes of death. The majority of women (56.0%) died of natural causes.



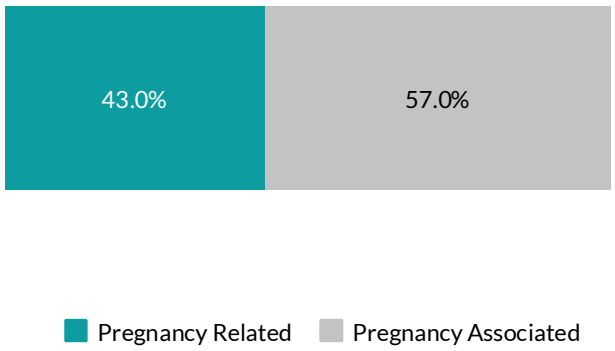
Pregnancy-Related Death

Of the pregnancy-related causes of death, the most common cause was cardiac / hypertension disorders (27.0%, n=10), followed by hemorrhage (24.3%, n=9) and then suicide, homicide, and accidents (including drug intoxication) (16.2%, n=6).



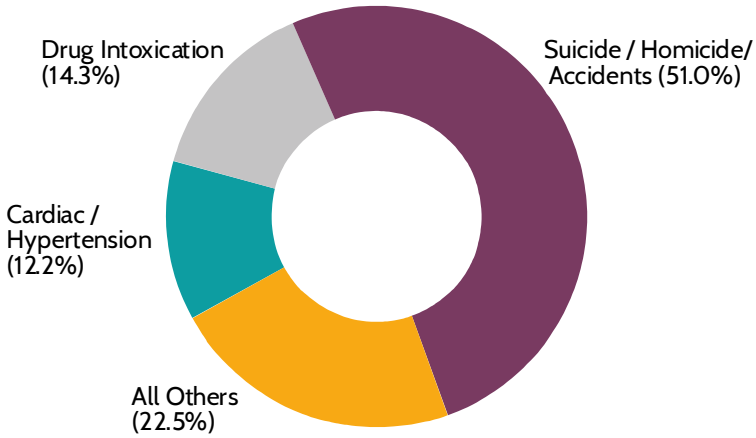
Pregnancy-Related vs Associated Death

Pregnancy associated deaths accounted for 57.0% of maternal deaths (n=49), while pregnancy related deaths accounted for 43.0% of maternal deaths (n=37).



Pregnancy-Associated Death

Of the pregnancy-associated causes of death, the most common cause was suicide, homicide, and accidents (excluding drug intoxication); (51.0%, n=25), followed by drug intoxication (14.3%, n=7), and then cardiac and hypertension disorders (12.2%, n=6).

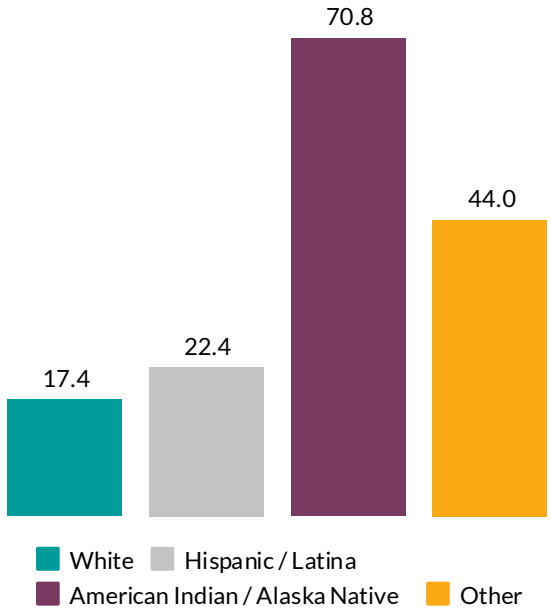


See Reverse Side for Additional Information

Maternal Mortality

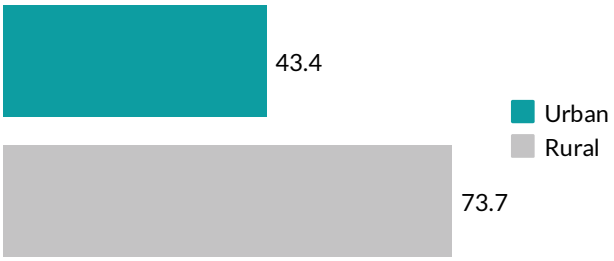
Race / Ethnicity

This combines pregnancy-related and pregnancy-associated causes of death. Maternal mortality disproportionately affects American Indian / Alaska Native women. Among this group, the rate of mortality was 70.8 per 100,000 live births; whereas among White women it was 17.4 per 100,000 live births.



Geography

This combines pregnancy-related and pregnancy-associated causes of death. In rural counties, the mortality rate was 73.7 per 100,000 live births compared to 43.4 per 100,000 live births in urban counties.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
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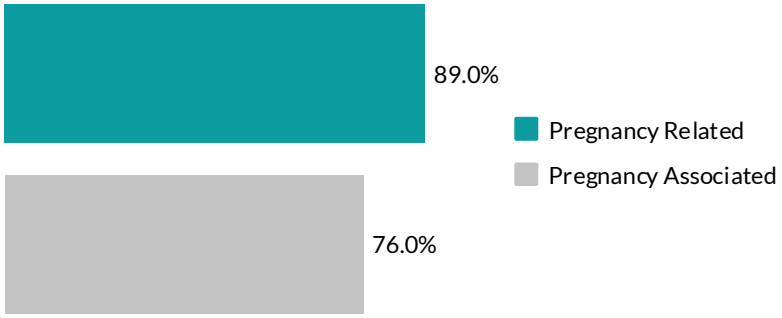
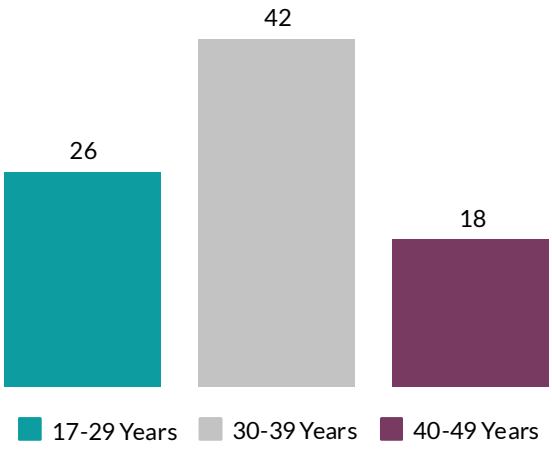
Preventable Deaths

This combines pregnancy-related and pregnancy-associated causes of death. Approximately 89.0% and 76.0% of pregnancy-related and pregnancy-associated deaths, respectively, were preventable.



Number of Deaths by Age

This combines pregnancy-related and pregnancy-associated causes of death. There were 86 maternal deaths of which 42 were ages 30-39 years, 26 were ages 17-29 years , and 18 were ages 40-49 years.

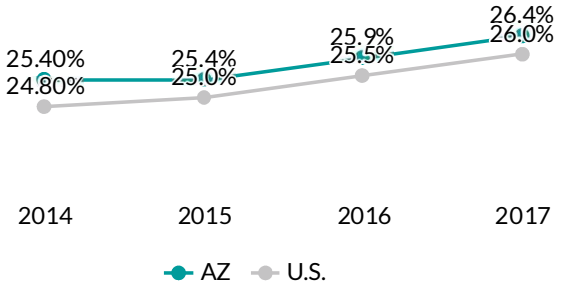


See Reverse Side for Additional Information

Early Term Birth

Significance

Although the risk is less than for preterm babies, those born "early term" at 37 or 38 completed weeks of gestation are still at greater risk of immediate health problems and long-term complications compared to "full term" (39 or 40 weeks completed gestation) infants. Complications during the newborn period include respiratory distress and neurological disorder, while long-term complications can include learning and behavioral problems.



Data Sources:
Martin JA, Hamilton BE, Osterman MJK et al. Births: Final Data for 2015. National Vital Statistics Reports. 2017 January 5. 66(1).
Gyamfi-Bannerman C. The scope of the problem: the epidemiology of late preterm and early-term birth. Semin Perinatol. 2011 Oct;35(5):246-8.

Trend Analysis (2014-2017)

Data Source: National Vital Statistics System, 2014-2017

This analysis compares the Arizona trend to the U.S. trend in early term births from 2014-2017. Both the rates for Arizona and the U.S. have been slightly increasing, and Arizona has been slightly higher than the rate of the U.S. In 2017, Arizona's rate was 26.4% compared to the U.S. rate of 26.0%.

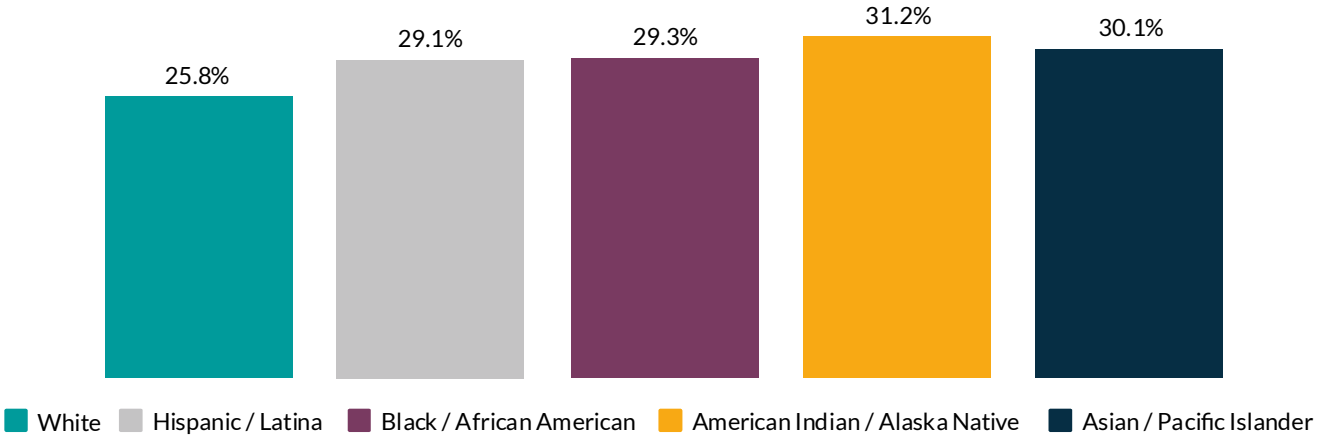
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Early Term Birth Rate = 27.8% of Live Births

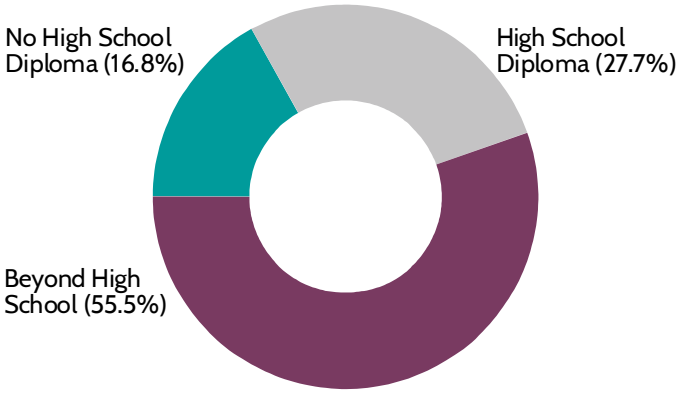
Race / Ethnicity

Approximately 31.2% of American Indian / Alaska Native live births were early term births, whereas 25.8% of all White live births were early term.



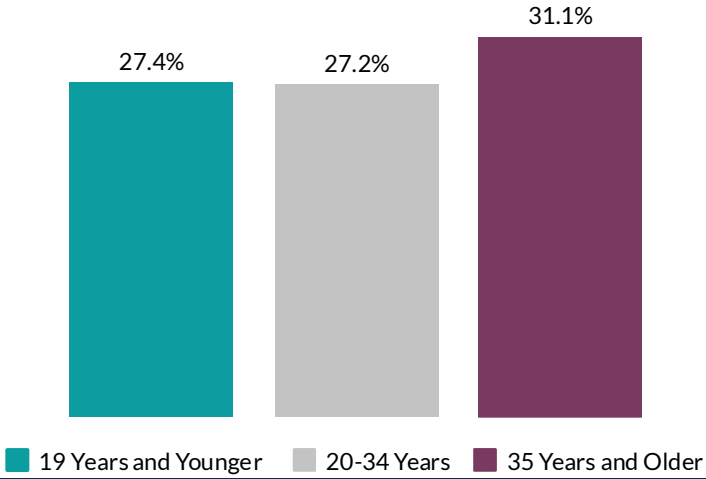
Maternal Education

Approximately 55.5% of women who had an early term birth had more than a high school education, 27.7% had a high school diploma, and 16.8% had more than a high school education.



Maternal Age

Of women ages 35 years and older who had a live birth, 31.1% had an early term birth, while 27.2% of women ages 20-34 years who had a live birth had an early term birth.

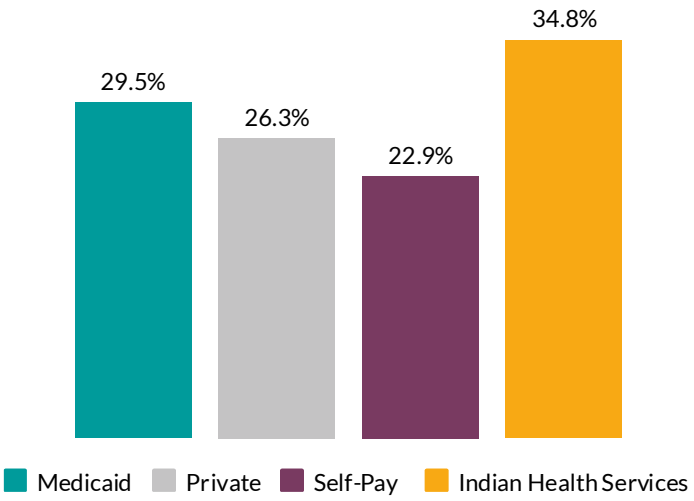


See Reverse Side for Additional Information

Early Term Birth

Payer for Birth

Approximately 34.8% of live births that were paid by Indian Health Services were early term, while 22.9% of live births that were self paid were early term.



Geography

Of all urban live births, 27.9% were early term births whereas 27.7% of all rural live births were early term births.

Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

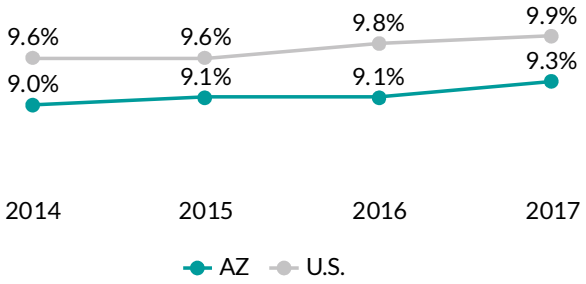
See Reverse Side for Additional Information

Maternal and Child Health Indicator

Preterm Birth

Significance

Babies born preterm, before 37 completed weeks of gestation, are at greater risk of immediate life-threatening health problems, as well as long-term complications and developmental delays. Currently, about 1 in every 10 infants are born prematurely. Preterm birth is a leading cause of infant death and childhood disability, accounting for at least a third of all infant deaths. Although the risk of complications is greatest among those babies who are born the earliest, even those babies born “late preterm” (34 to 36 weeks’ gestation) and "early term" (37, 38 weeks' gestation) are more likely than full-term babies to experience morbidity and mortality.



Data Sources:
https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm
https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_09.pdf
https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01.pdf

Trend Analysis (2014-2017)

Data Source: National Vital Statistics System, 2014-2017

This analysis compares the Arizona trend to the U.S. trend in preterm births from 2014-2017. Both the rates for Arizona and the U.S. have been slightly increasing, and the U.S. rate has been consistently higher than Arizona's rate. In 2017, Arizona's rate was 9.3% compared to the U.S. rate of 9.9%.

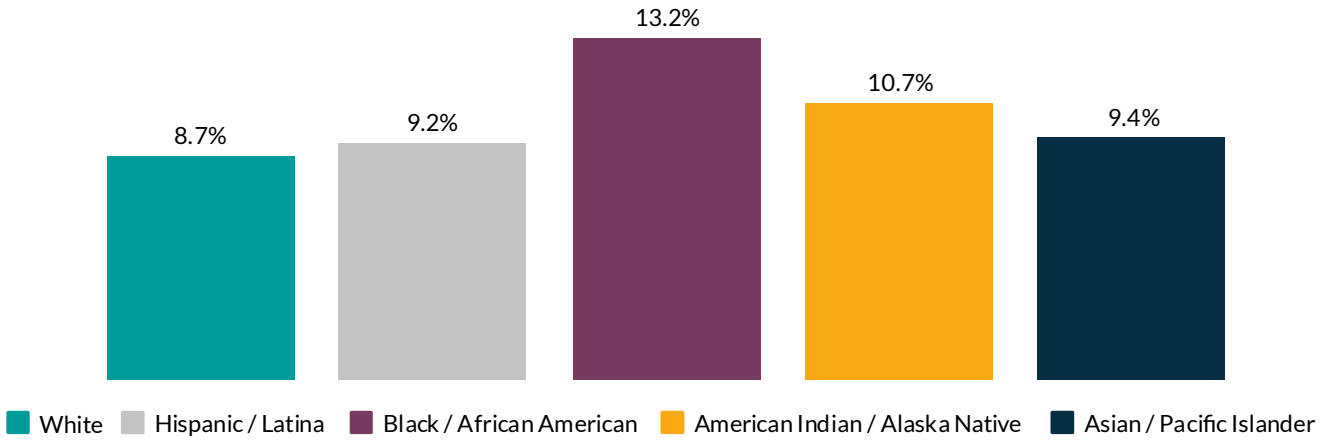
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Preterm Birth Rate = 9.3% of Live Births

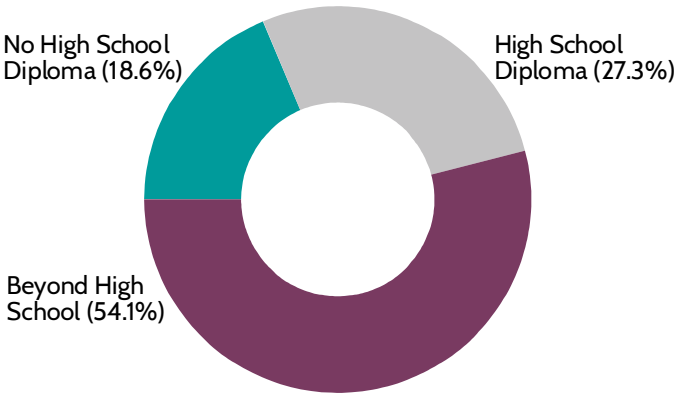
Race / Ethnicity

Approximately 13.2% of Black / African American live births were preterm, whereas 8.7% of White live births were preterm.



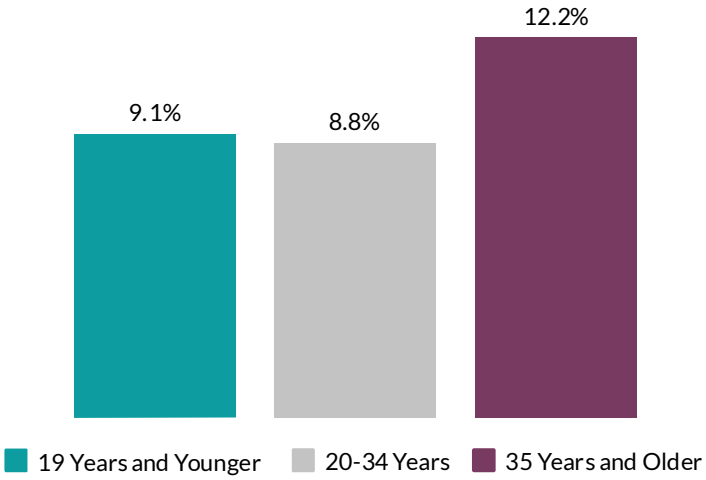
Maternal Education

Approximately 54.1% of women who had a preterm birth received post high school education. Over one-quarter (27.3%) of women who had a preterm birth received a high school diploma, while less than one-fifth (18.6%) had less than a high school education.



Maternal Age

Of women ages 35 years and older, 12.2% had a preterm birth, while 8.8% of women ages 20-34 years had a preterm birth.

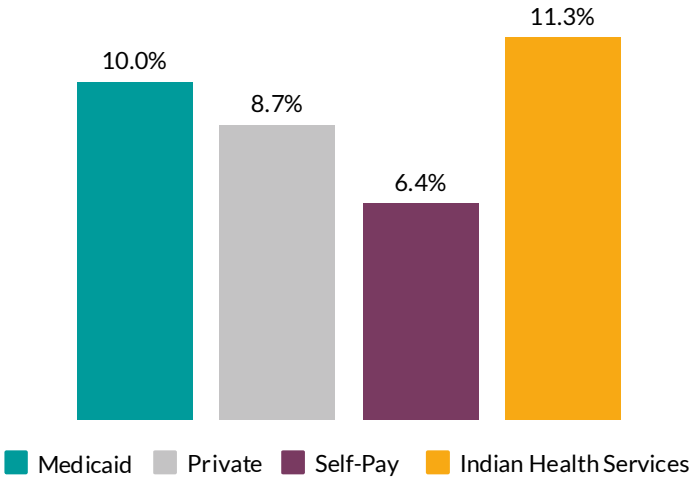


See Reverse Side for Additional Information

Preterm Birth

Payer for Birth

Approximately 11.3% of live births paid by Indian Health Services were preterm, while 6.4% of live births self-paid were preterm.



Geography

Of all rural live births, 9.4% were preterm births whereas 9.3% of all urban live births were preterm births.

Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

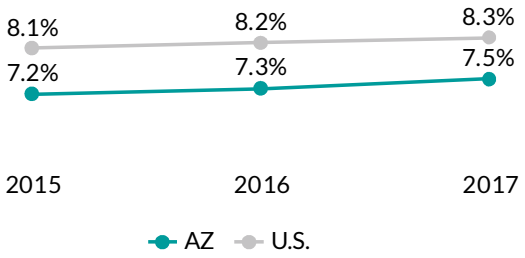
See Reverse Side for Additional Information

Maternal and Child Health Indicator

Low Birth Weight (LBW)

Significance

Low birth weight infants include pre-term infants and infants with intrauterine growth retardation. Some risk factors for low birth weight babies include: chronic health conditions, inadequate weight gain, both young and old maternal age, poverty, smoking, substance abuse, and multiple births. Low birth weight infants are more likely than normal weight infants to die in the first year of life and to experience long-range physical and developmental health problems. Infants born to non-Hispanic Black women have the highest rates of low birth weight, particularly very low birth weight.



Data Sources:
March of Dimes. Low Birthweight. 2014 October.
Mathews TJ, MacDorman MF, Thoma ME. Infant Mortality Statistics From the 2013 Period Linked Birth/Infant Death Data Set. National Vital Statistics Reports. 2015 August 6. 64(9).
Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2015. National vital statistics report; vol 66, no 1. Hyattsville, MD: National Center for Health Statistics. 2017.

Trend Analysis (2015-2017)

Data Source: National Vital Statistics System, 2015-2017

This analysis compares the Arizona trend to the U.S. trend in low birth weight from 2015-2017. Both the rates for Arizona and the U.S. have been slightly increasing, and the U.S. rate has been consistently higher than Arizona's rate. In 2017, Arizona's rate was 7.5% compared to the U.S. rate of 8.3%.

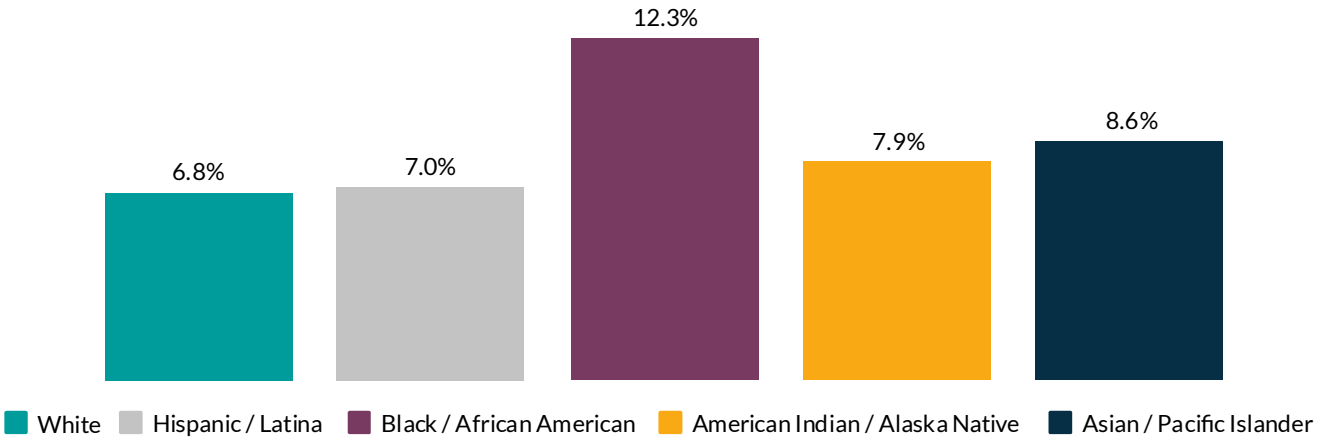
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Low Birth Weight Rate = 7.3% of Live Births

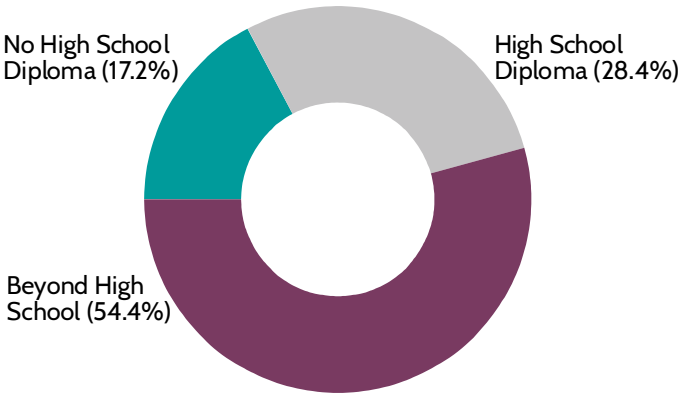
Race / Ethnicity

Approximately 12.3% of Black / African American live births were LBW, whereas 6.8% of all White live births were LBW.



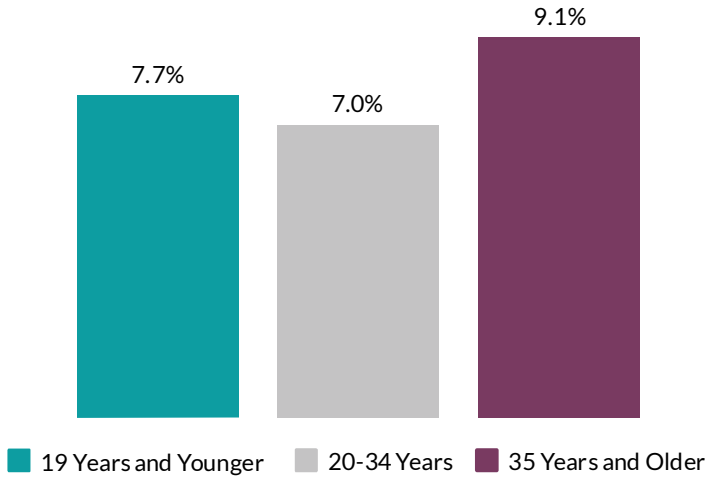
Maternal Education

Approximately 54.4% of women who had a LBW baby received post-high school education. Over one-quarter (28.4%) of women who had a LBW baby received a high school diploma, while less than one-fifth (17.2%) had less than a high school education.



Maternal Age

Of women ages 35 years and older, 9.1% had a LBW baby, while 7.0% of women ages 20-34 years had a LBW baby.

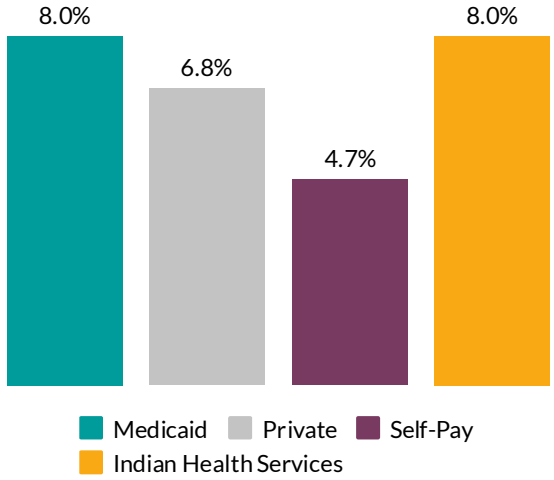


See Reverse Side for Additional Information

Low Birth Weight (LBW)

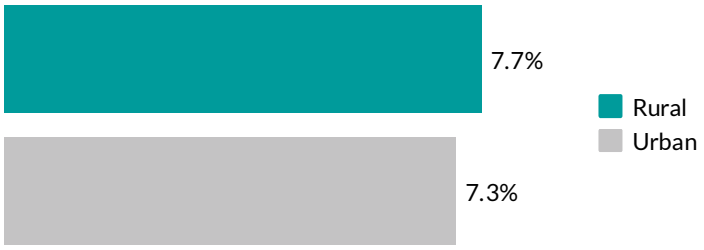
Payer for Birth

Approximately 8.0% of live births paid by Indian Health Services and Medicaid were LBW, while 4.7% of live births that were self-paid were LBW.



Geography

Of all rural live births, 7.7% were LBW whereas 7.3% of all urban live births were LBW.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

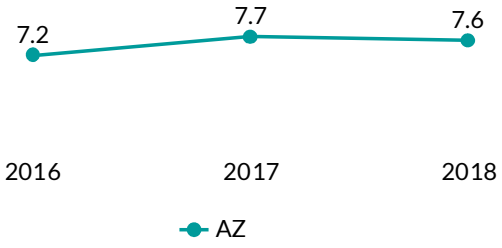
See Reverse Side for Additional Information

Maternal and Child Health Indicator

Neonatal Abstinence Syndrome (NAS)

Significance

Neonatal drug dependency or withdrawal symptoms, known as neonatal abstinence syndrome (NAS), occur from maternal use of opiates such as heroin, methadone, and prescription pain medications. Symptoms of NAS include fever, diarrhea, irritability, trembling, and increased muscle tone. Along with a rise in prescription drug abuse, the incidence of NAS nearly tripled over the past decade with substantial increases in health care costs. Prevention strategies exist along the continuum from preconception, prenatal, postpartum, and infant / childhood stages to help avert substance-exposed pregnancies and improve outcomes for infants born with NAS.



Data Sources:
Patrick SW, Shumacher RE, Benneyworth BD et al. Neonatal Abstinence Syndrome and Associated Health Care Expenditures, 2000-2009. JAMA. 2012 May 9. 307(18):1934-40.
Association of State and Territorial Health Officials (ASTHO). Neonatal Abstinence Syndrome: How States Can Help Advance the Knowledge Base for Primary Prevention and Best Practices of Care. 2014.
Ko JY, Wolicki S, Barfield WD, et al. CDC Grand Rounds: Public Health Strategies to Prevent Neonatal Abstinence Syndrome. MMWR Morb Mortal Wkly Rep 2017;66:242–245.

Trend Analysis (2016-2018)

Data Source: Hospital Discharge Data, 2016-2018

This analysis examines the Arizona trend of NAS among newborn hospitalizations from 2016-2018. Arizona's rate has slightly increased from 2016 to 2018. In 2018, 7.6 per 1,000 newborn hospitalizations had NAS.

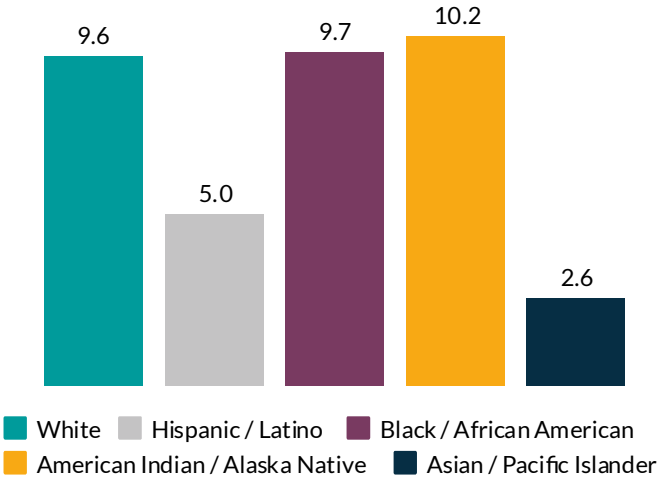
Arizona Analysis (2018)

Data Source: Hospital Discharge Data, 2018

Arizona NAS Rate = 7.6 per 1,000 newborn hospitalizations

Race / Ethnicity

American Indian / Alaska Native newborns have the highest rate of NAS at 10.2 per 1,000 newborn hospitalizations, whereas Asian newborns have only 2.6 cases of NAS per 1,000 newborn hospitalizations.



Gender

The rate of NAS among female newborns was 7.7 per 1,000 newborn hospitalizations compared to 7.4 per 1,000 newborn hospitalzations among male newborns.

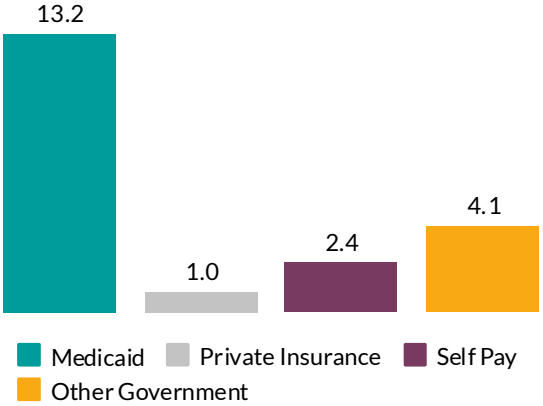
Geography

There were 7.8 cases of NAS per 1,000 newborn hospitalizations among urban counties while rural counties had 6.1 cases of NAS per 1,000 newborn hospitalizations.

Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer

The highest rates of NAS were seen amongst infants where Medicaid was the payer at a rate of 13.2 per 1,000 newborn hospitalizations whereas amongst private insurance payers the NAS rate was 1.0 per 1,000 newborn hospitalizations.

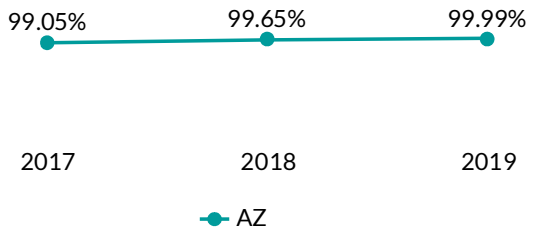


Newborn Screening

Significance

Newborn screening detects thousands of babies each year with potentially devastating, but treatable disorders. The benefits of newborn screening depend upon timely collection of the newborn blood-spots or administration of a point-of-care test (pulse oximeter for critical congenital heart disease (CCHD)), receipt of the newborn blood spot at the laboratory, testing of the newborn blood spot, and reporting out of all results. Timely detection prevents death, mental retardation, and other significant health complications.

Data Source:
Centers for Disease Control and Prevention. CDC Grand Rounds: Newborn Screening and Improved Outcomes. Morbidity and Mortality Weekly Report. 2012 June 1. 61(21): 390-93.



Trend Analysis (2017-2019)

Data Source: Newborn Bloodspot Screening, 2019

This analysis shows the Arizona trend in newborn bloodspot screening from 2017-2019. In 2019, 99.99% of Arizona's newborns received a newborn bloodspot screening.

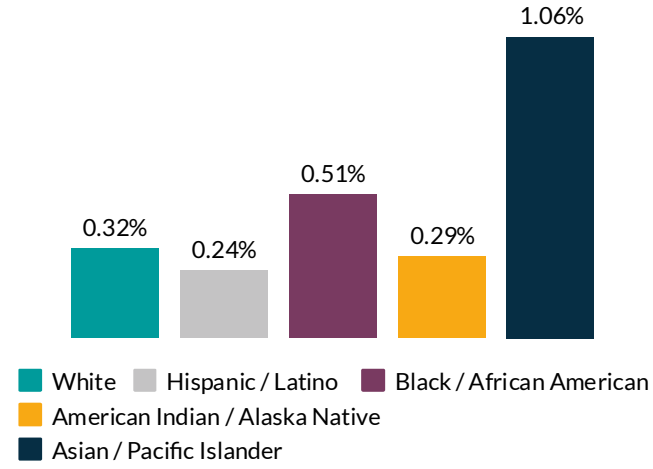
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Positive Bloodspot Screen Rate = 0.32% of those who Received a Bloodspot Screen Tested Postive for a Disorder

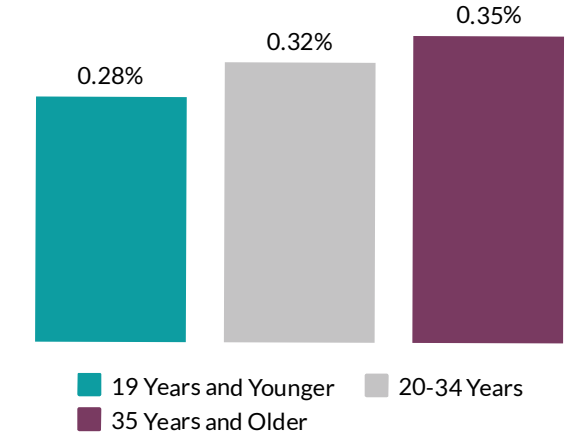
Race / Ethnicity

Of the Asian / Pacific Islander newborns who had a bloodspot screen, 1.06% tested positive for a disorder; whereas 0.24% of Hispanic / Latino newborns who had a bloodspot screen tested positive for a disorder.



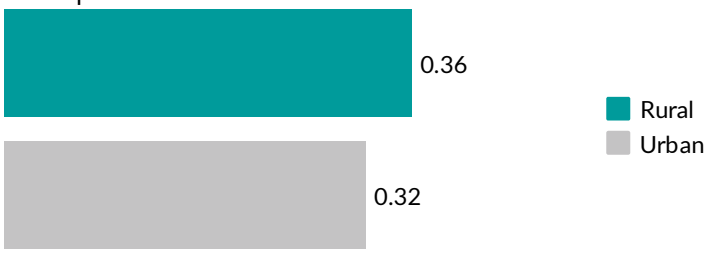
Maternal Age

Of the newborns who had a bloodspot screen and were born to a mother 35 years and older, 0.35% tested positive for a disorder.



Geography

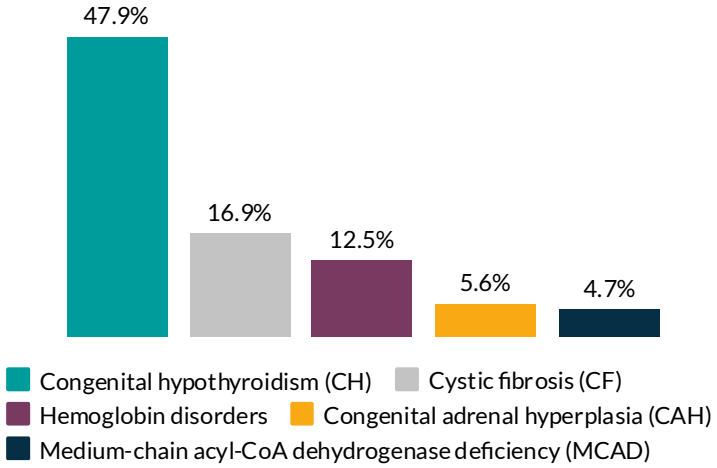
Of all rural counties, 0.36% of newborns who received a bloodspot screen tested positive for a disorder; whereas 0.32% of newborns who received a bloodspot screen in urban counties tested positive for a disorder.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Top 5 Bloodspot Disorders (2016-2019)

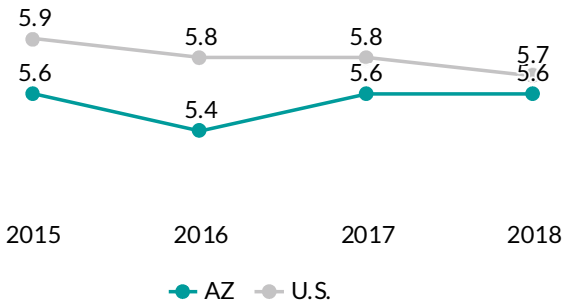
The most common bloodspot disorder was congenital hypothyroidism (CH) at 47.9%. The second most common bloodspot disorder was cystic fibrosis (CF) at 16.9%. The third most common bloodspot disorder was hemoglobin disorders (12.5%), followed by congenital adrenal hyperplasia (CAH) (5.6%), and then medium-chain acyl-CoA dehydrogenase deficiency (MCAD) (4.7%).



Infant Mortality

Significance

Infant mortality, or the death of a child within the first year of life, is a sentinel measure of population health that reflects the underlying well-being of mothers and families, as well as the broader community and social environment that cultivate health and access to health-promoting resources. Leading causes of infant mortality include prematurity, birth defects, and sudden unexpected infant deaths (SUID). Infant mortality continues to be an extremely complex health issue with many medical, social, and economic determinants.



Data Sources:
U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2014. Rockville, Maryland: U.S. Department of Health and Human Services, 2014.
Mathews TJ, Driscoll AK. Trends in infant mortality in the United States, 2005–2014. NCHS data brief, no 279. Hyattsville, MD: National Center for Health Statistics. 2017.

Trend Analysis (2015-2018)

Data Source: Arizona Vital Records, 2015-2018

This analysis compares the Arizona trend to the U.S. trend in infant mortality from 2015-2018 where the Arizona trend line has been hovering closely to the U.S. trend. In 2018, Arizona had 5.6 deaths per 1,000 live births compared to the U.S. rate of 5.7 deaths per 1,000 live births.

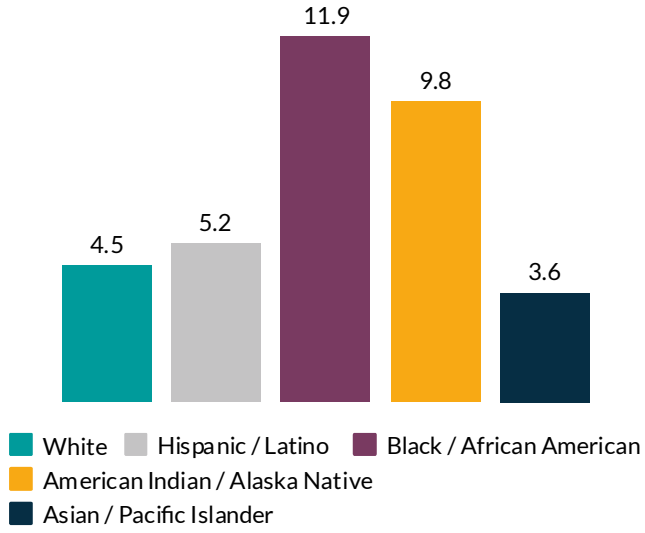
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Infant Mortality Rate = 5.4 per 1,000 Live Births

Race / Ethnicity

The infant mortality rate among Black / African American infants was 11.9 per 1,000 live births, whereas among White infants the mortality rate was 4.5 per 1,000 live births.

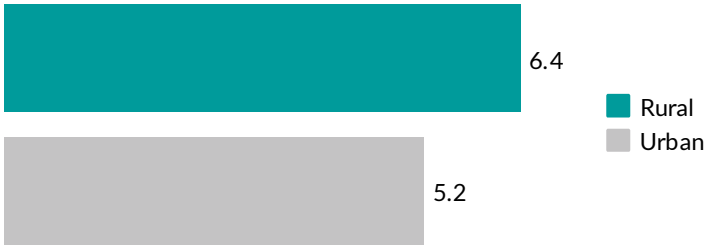


Gender

Infant mortality among male infants was 6.1 per 1,000 live births, whereas infant mortality was 4.7 per 1,000 live births for female infants.

Geography

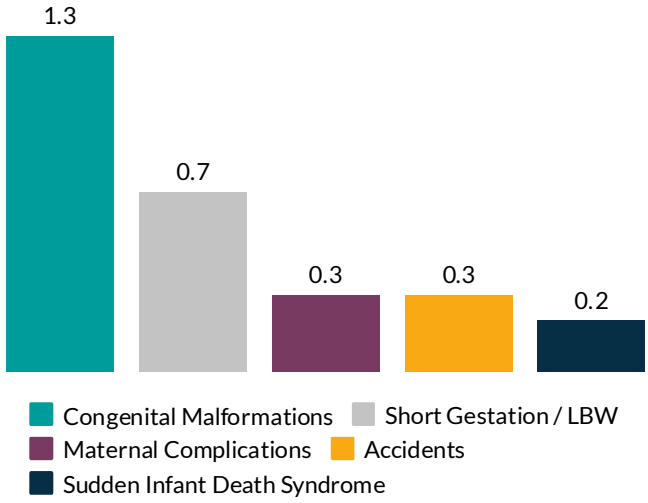
Of all rural counties, infant mortality was 6.4 per 1,000 live births, whereas among urban counties, infant mortality was 5.2 per 1,000 live births.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Top 5 Causes of Death

The top cause of death was congenital malformations, deformations, and chromosomal abnormalities which occurred at a rate of 1.3 per 1,000 live births. The second most common cause of death was short gestation and low birth weight (LBW) at a rate of 0.7 per 1,000 live births. The third most common cause was maternal complications followed by accidents (unintentional injuries) and sudden infant death syndrome (SIDS).

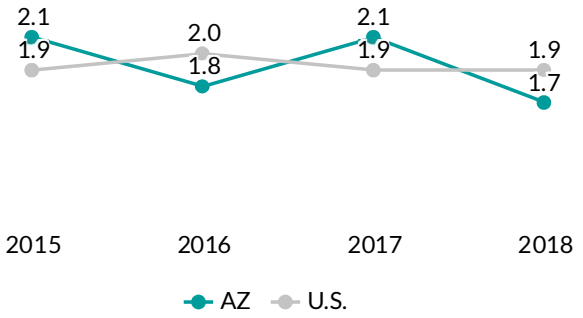


Postneonatal Mortality

Significance

Postneonatal deaths, which occur from 28 days to up to one year after birth, account for approximately one-third of all infant deaths in the U.S. Postneonatal mortality is generally related to Sudden Unexpected Infant Death (SUID) / Sudden Infant Death Syndrome (SIDS), unintentional injuries, and congenital malformations.

Data Source:
Mathews TJ, MacDorman MF, Thoma ME. Infant Mortality Statistics From the 2013 Period Linked Birth/Infant Death Data Set. National Vital Statistics Reports. 2015 August 6. 64(9). https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_09.pdf



Trend Analysis (2015-2018)

Data Source: Arizona Vital Statistics System, 2015-2018

This analysis compares the Arizona trend to the U.S. trend in postneonatal mortality from 2015-2018; where the Arizona trend line has been hovering closely to the U.S. trend line. In 2018, Arizona had 1.7 postneonatal deaths per 1,000 live births compared to the U.S. rate of 1.9 postneonatal deaths per 1,000 live births.

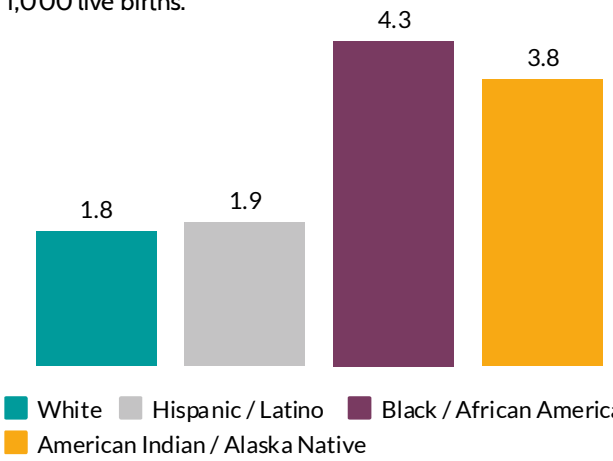
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Postneonatal Mortality Rate = 2.1 per 1,000 Live Births

Race / Ethnicity

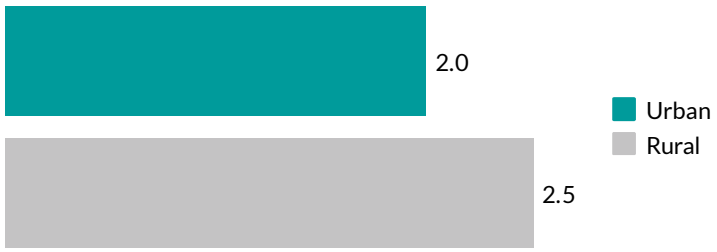
The postneonatal mortality rate among Black / African American infants was 4.3 per 1,000 live births; whereas for White infants, the postneonatal mortality rate was 1.8 per 1,000 live births.



Data for Asian / Pacific Islander postneonates not included due to a small sample size.

Geography

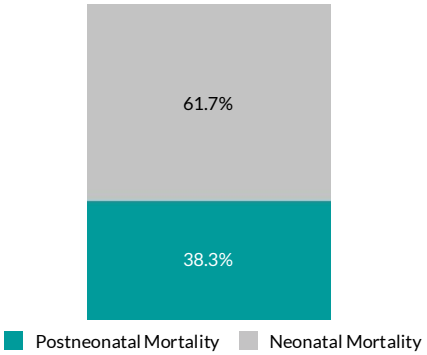
Of all rural counties, postneonatal mortality was 2.5 per 1,000 live births; whereas among urban counties postneonatal mortality was 2.0 per 1,000 live births.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

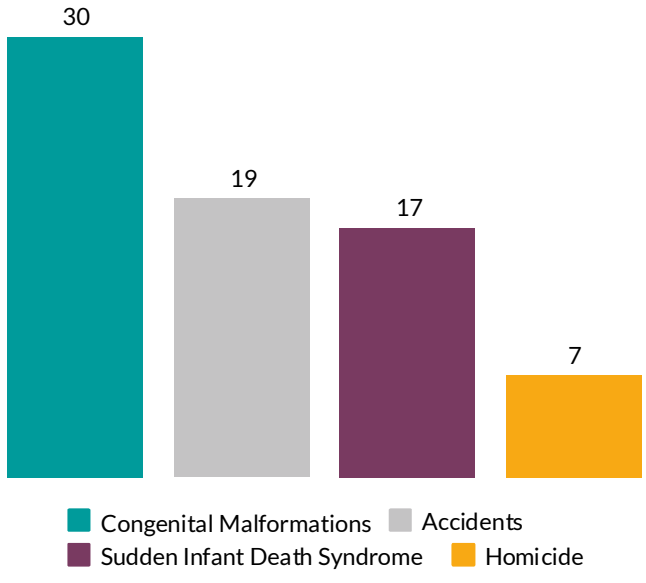
Postneonatal Mortality as Part of Infant Mortality

Infant mortality is all deaths under one year of age. Neonatal mortality is deaths under 28 days after birth, while postneonatal mortality is deaths from 28 days up to 1 year after birth. Postneonatal deaths accounted for 38.3% of all infant deaths.



Top 4 Causes of Death

There were 165 postneonatal deaths. The top four causes of death were: congenital malformations (n=30), accidents (n=19), sudden infant death syndrome (n=17), and homicide (n=7).



Maternal and Child Health Indicator

Children with Special Health Care Needs (CSHCN)

Significance

Children are considered to have a special health care need if, in addition to a chronic medical, behavioral, or developmental condition that has lasted or is expected to last 12 months or longer, they experience either service-related or functional consequences, including the need for or use of prescription medications and / or specialized therapies. The percent of children with special health care needs (CSHCN) has been increasing since 2001. About 1 in 5 of all US children are considered to have special health care needs. However, they account for almost half of all health care expenditures for children.

U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2014. Rockville, Maryland: U.S. Department of Health and Human Services, 2014. https://mchb.hrsa.gov/chusa14/population-characteristics/children-special-health-care-needs.html

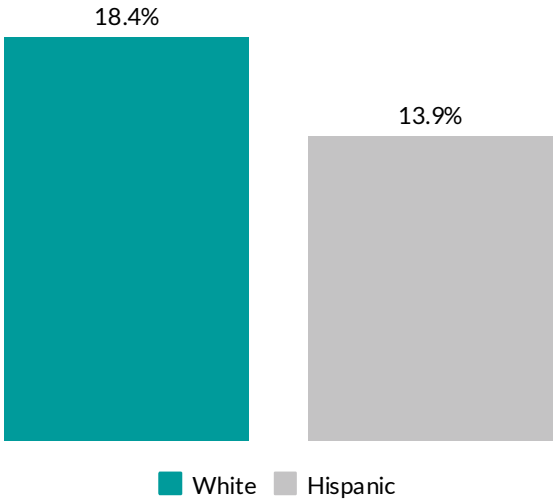
Arizona Analysis (2017-2018)

Data Source: National Survey of Children's Health (NSCH), 2017-2018

Arizona CSHCN Rate = 16.9% of Children Ages 0-17 Years

Race / Ethnicity

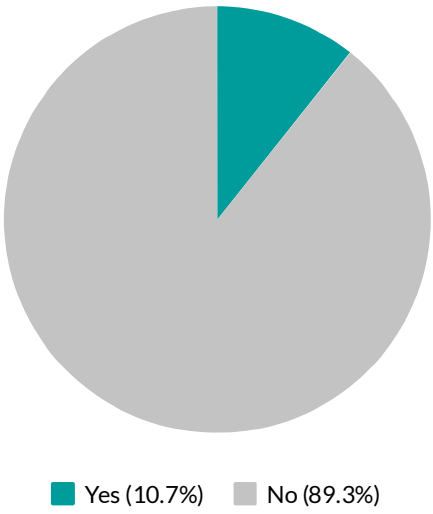
Approximately 18.4% of White children are CSHCN compared to 13.9% of Hispanic children.



Data for Black and Asian children not included due to small sample sizes.

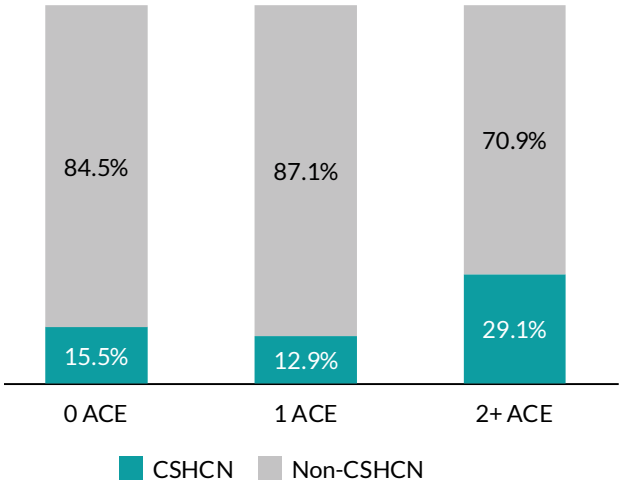
Needed / Received Special Therapy (Physical, Occupational, or Speech Therapy)

Approximately 10.7% indicated having a child who needed / received special therapy.



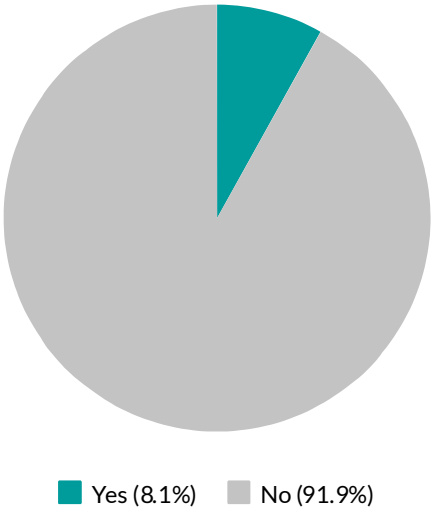
Adverse Childhood Experiences (ACE)

Of the children who had two or more ACEs, 29.1% were CSHCN compared to 70.9% of non-CSHCN. CSHCN comprised 15.5% of all children who experienced 0 ACEs, while 84.5% of children who experienced 0 ACEs were non-CSHCN.



Emotional, Developmental, or Behavioral Problem for which the Child Needed Treatment or Counseling

Approximately 8.1% indicated having a child with emotional, developmental, or behavioral problems for which the child needed treatment or counseling.

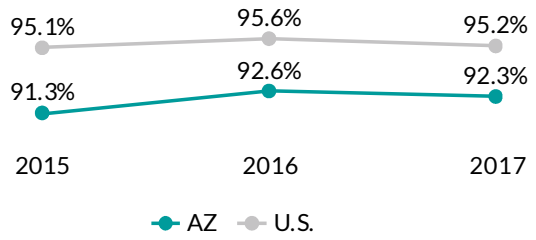


Health Insurance Coverage

Significance

There is a well documented benefit for children (ages 0-17 years) in having health insurance. Research has shown that children who acquire health insurance are more likely to have access to a usual source of care, receive well child care and immunizations, to have developmental milestones monitored, and receive prescriptions drugs, appropriate care for asthma and basic dental services. Serious childhood problems are more likely to be identified early in children with insurance, and insured children with special health care needs are more likely to have access to specialists. Insured children not only receive more timely diagnosis of serious health care conditions but experience fewer avoidable hospitalizations, improved asthma outcomes and fewer missed school days.

Data Source: IOM (Institute of Medicine). 2009. America's Uninsured Crisis: Consequences for Health and Health Care. Washington, DC: National Academies Press. http://www.nationalacademies.org/hmd/Reports/2009/Americas-Uninsured-Crisis-Consequences-for-Health-and-Health-Care.aspx



Trend Analysis (2015-2017)

Data Sources: American Community Survey and / or National Survey of Children's Health (NSCH), 2015-2017

This analysis compares the Arizona trend to the U.S. trend in health insurance coverage for children from 2015-2017. Arizona's health insurance coverage rate has been consistently lower than the U.S. rate. In 2017, Arizona's rate was 92.3% compared to the U.S. rate of 95.2% of children with health insurance coverage.

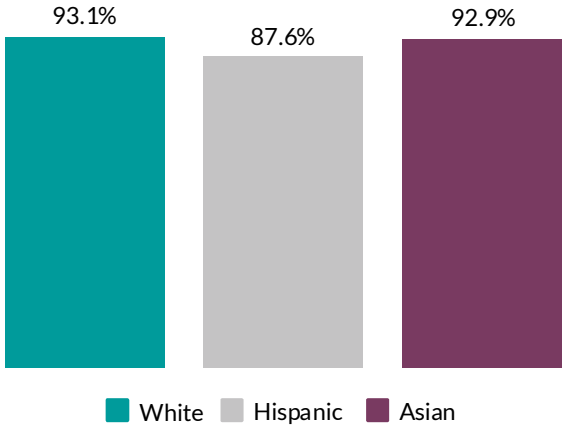
Arizona Analysis (2017-2018)

Data Source: National Survey of Children's Health (NSCH), 2017-2018

Arizona Health Insurance Status Rate = 90.9% Children Ages 0-17 Years

Race / Ethnicity

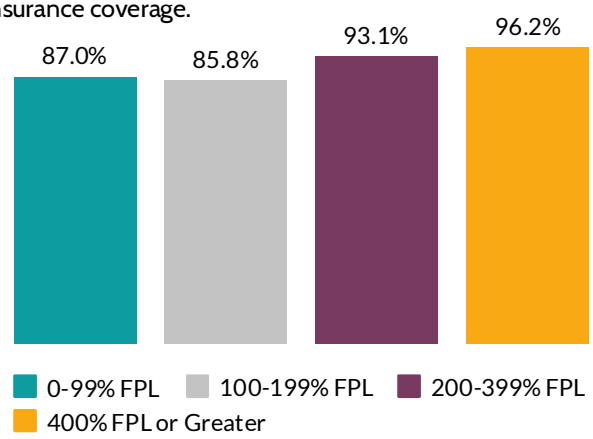
Approximately 93.1% of White children had health insurance coverage compared to 87.6% of Hispanic children who had health insurance coverage.



Data for Black children not shown due to a small sample size.

Household Income

Approximately 96.2% of children who had a household income 400% of the federal poverty level (FPL) or greater had health insurance coverage whereas 85.8% of children who had a household income 100-199% FPL had health insurance coverage.

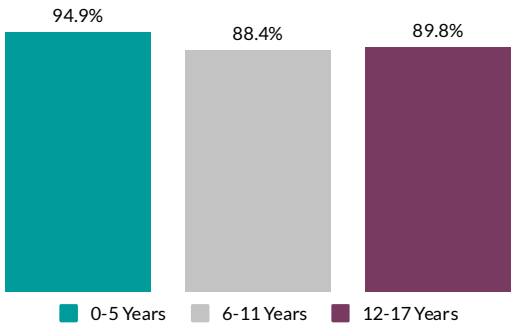


Gender

Of all male children, 91.4% had health insurance coverage while 90.4% of all female children had health insurance coverage.

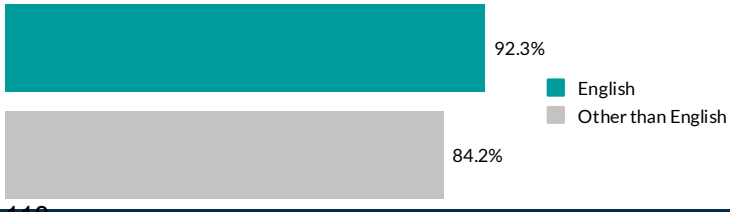
Age

Approximately 94.9% of children ages 0-5 years had health insurance coverage, while 88.4% of children ages 6-11 years had health insurance coverage.



Primary Language Spoken in Household

Of the children who were in a household where English was the primary language spoken, 92.3% had health insurance coverage whereas 84.2% of children who were in a household where a language other than English was primarily spoken had health insurance coverage.

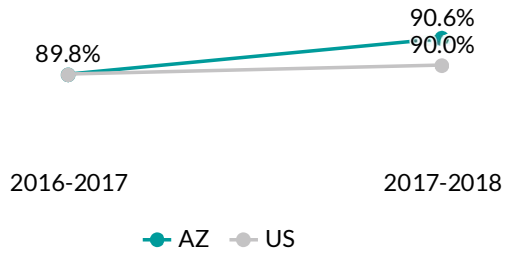


Overall Health Status

Significance

Overall health status for children provides a global, summary measure of children's health and well-being. Children reported to be in excellent or very good health are more likely to thrive in a variety of health dimensions, including physical and mental health. Self or proxy-reported health status is an indicator of health-related quality of life that is often more predictive of morbidity and mortality than objective measures of health. This indicator is based on the percentage of children ages 0-17 years in excellent or good health.

Data Source: Centers for Disease Control and Prevention. Health-Related Quality of Life. https://www.cdc.gov/hrqol/concept.htm



Trend Analysis (2016-2018)

Data Source: National Survey of Children's Health (NSCH), 2016-2017, 2017-2018

This analysis compares the Arizona rate to the U.S. rate in overall health status of those ages 0-17 years from 2016-2018. Both the U.S. and Arizona rates slightly increased from 2016-2017 to 2017-2018 where 90.6% of Arizona's children ages 0-17 were reported to be in excellent or very good health from 2017-2018.

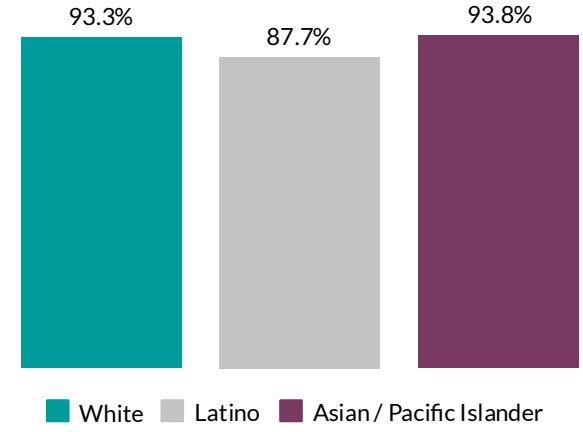
Arizona Analysis (2017-2018)

Data Source: National Survey of Children's Health (NSCH), 2017-2018

Arizona Overall Health Status Rate = 90.6% (Excellent or Very Good) of Children Ages 0-17 Years

Race / Ethnicity

Approximately 93.3% of Asian / Pacific Islander children were in excellent or very good health followed by 93.3% of White children, and then 87.7% of Latino children.



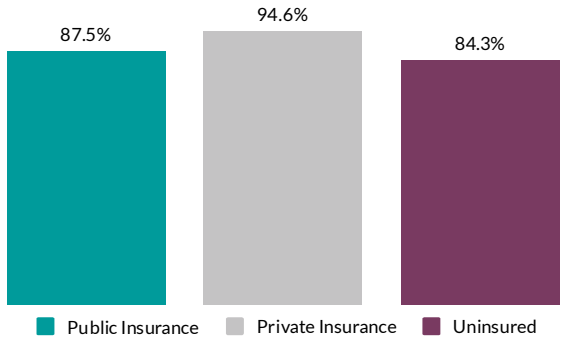
Data for Black children not included due to a small sample size.

Gender

Approximately 90.7% and 90.4% of male and female children, respectively, were reported to be in excellent or very good health.

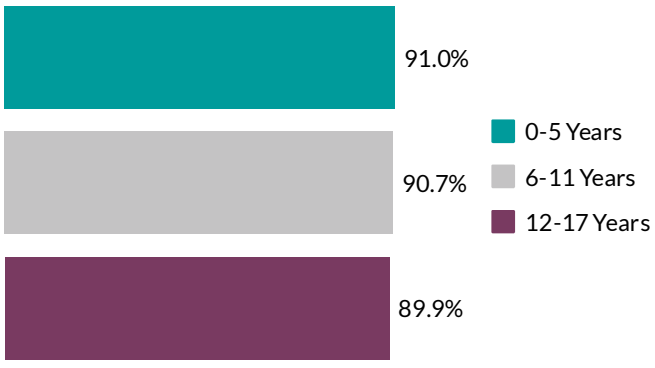
Payer for Services

Of the children with private insurance, 94.6% were reported to be in excellent or very good health, followed by 87.5% with public insurance, and then 84.3% who were uninsured.



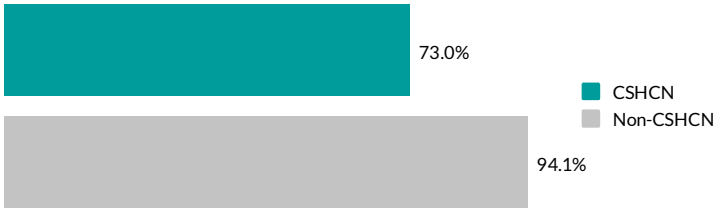
Age Groups

Approximately 91.0% of children ages 0-5 years were in excellent or very good health followed by 90.7% of children ages 6-11 years, and then 89.9% of children ages 12-17 years.



Children with Special Health Care Needs

Of the children who did not have special health care needs (non-CSHCN), 94.1% were reported to be in excellent or very good health compared to 73.0% of CSHCN who were reported to be in excellent or very good health.

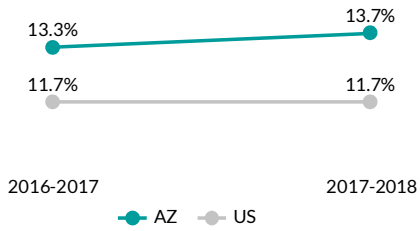


Tooth Decay / Cavities

Significance

Tooth decay (cavities) is among the most common chronic conditions of childhood (ages 1-17 years). Untreated tooth decay can lead to pain and infections which may result in problems with eating, speaking, learning, and playing. Children with poor oral health tend to miss more school and get lower grades than those who do not. Tooth decay can be prevented through recommended preventive dental care, including flouride varnish and dental sealants, community water flouridation, and oral hygeine practices, including brushing and flossing.

Data Source: Centers for Disease Control and Prevention. Children's Oral Health. 2016 November 15. https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html



Trend Analysis (2016-2018)

Data Source: National Survey of Children's Health (NSCH), 2016-2017, 2017-2018

This analysis compares the Arizona rate to the U.S. rate in tooth decay / cavities from 2016-2018. The Arizona rate slighly increased from 2016-2017 to 2017-2018, while the U.S. rate stayed the same. From 2017-2018 the Arizona rate was slightly higher at 13.7% compared to the U.S. rate of 11.7% of children with tooth decay / cavities.

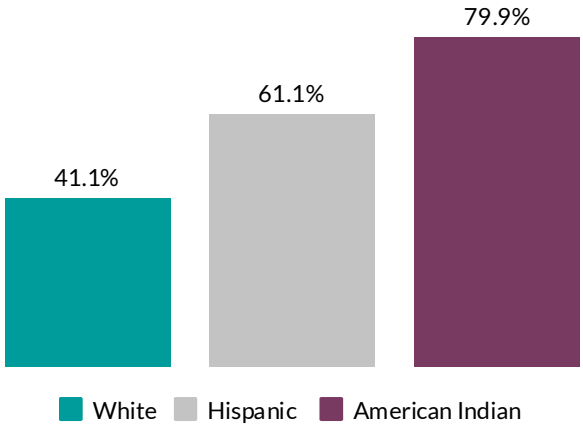
Arizona Analysis (2015)

Data Sources: Arizona Healthy Smiles Healthy Bodies Survey, 2015

Arizona Tooth Decay Rate = 56.8% of Kindergarten and Third Graders

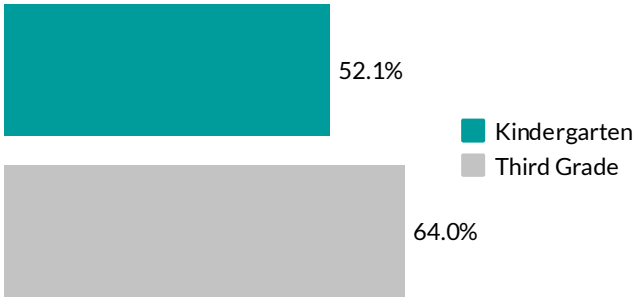
Race / Ethnicity

Approximately 79.9% of American Indian kindergarten and third grade students had tooth decay, while 41.1% of White kindergarten and third grade students had tooth decay.



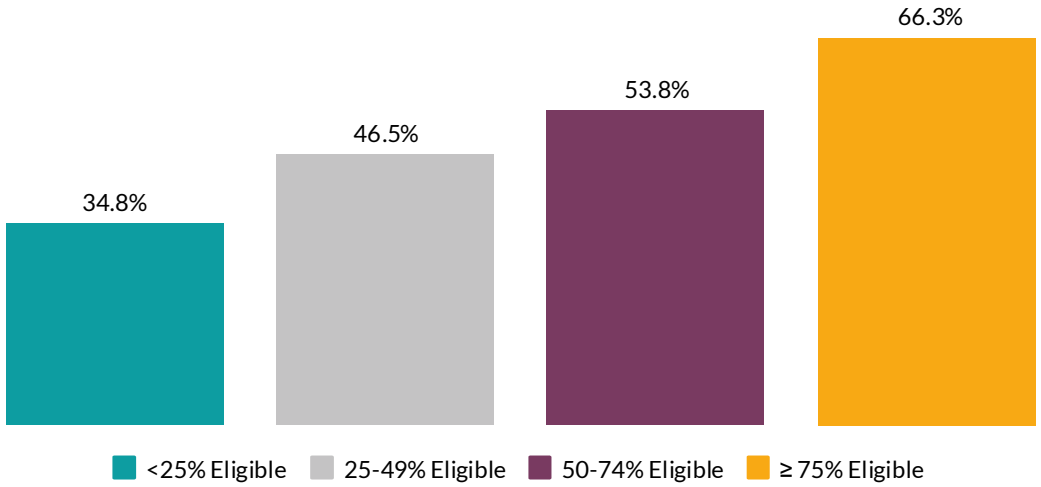
Grade

Approximately 64.0% of third grade students and 52.1% of kindergarten students had tooth decay.



National School Lunch Program

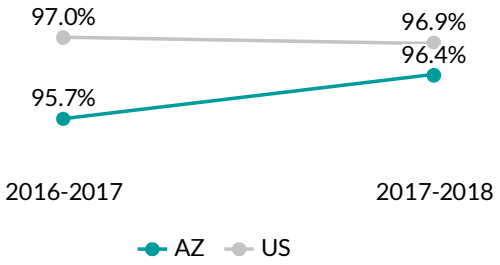
Roughly, 66.3% of kindergarten and third grade children who were in a school with ≥ 75% eligibility for the National School Lunch Program had experienced tooth decay compared to 34.8% of kindergarten and 3rd grade children who were in a school with <25% eligibility for the National School Lunch Program.



Received Needed Health Care or Did Not Need Health Care

Significance

Improving access to quality health services is essential for optimal health in both preventing and treating health conditions for children ages 0-17 years. When needed care is not received, health may suffer and conditions may not be prevented or may grow in severity. Common barriers to care include cost, language, logistical, and structural factors, such as not having transportation or scheduling difficulties. Adequate insurance and access to a patient-centered medical home can reduce unmet needs for health care.



Data Sources:
Kogan MD, Newacheck PW, Blumberg SJ, Ghandour RM, Singh GK, Strickland BB, van Dyck PC. Underinsurance among children in the United States. N Engl J Med. 2010Aug 26;363(9):841-51.
Strickland BB, Jones JR, Ghandour RM, Kogan MD, Newacheck PW. The medical home: health care access and impact for children and youth in the United States. Pediatrics. 2011 Apr;127(4):604-11.

Trend Analysis (2016-2018)

Data Source: National Survey of Children's Health (NSCH), 2016-2017, 2017-2018

This analysis compares the Arizona rate to the U.S. rate in received needed health care or did not need health care from 2016-2018. The rate of Arizona's children who received needed health care or did not need health care rose from 95.7% in 2016-2017 to 96.4% in 2017-2018. However, this still falls short of the U.S. average of 96.9%.

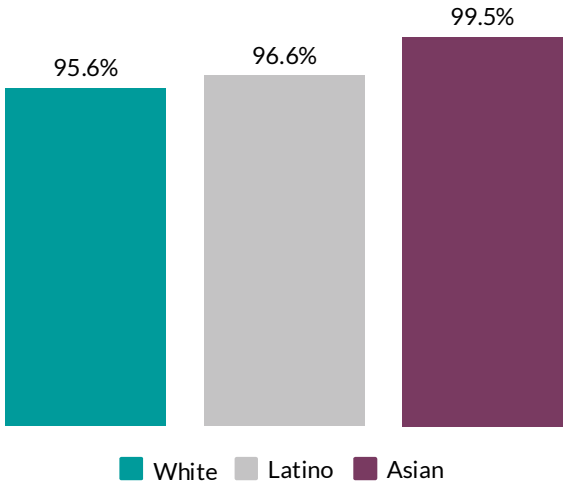
Arizona Analysis (2017-2018)

Data Source: National Survey of Children's Health (NSCH), 2017-2018

Arizona Received Health Care Rate = 96.4% of Children Ages 0-17 Years

Race / Ethnicity

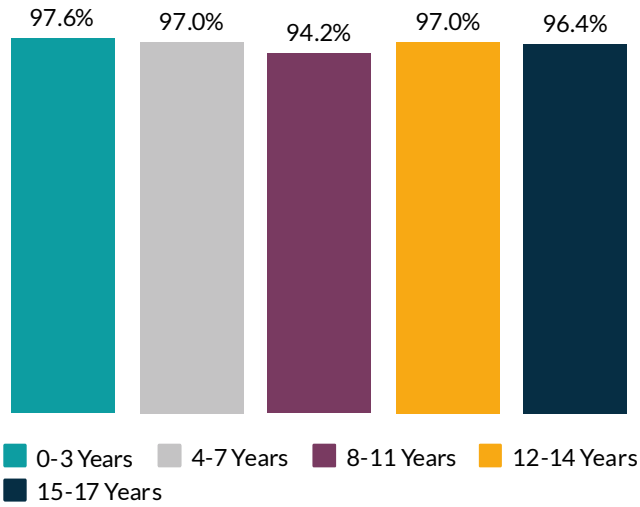
Approximately 99.5% of Asian children either received needed health care or did not need health care compared to 95.6% of White children.



Data for Black children not shown due to a small sample size.

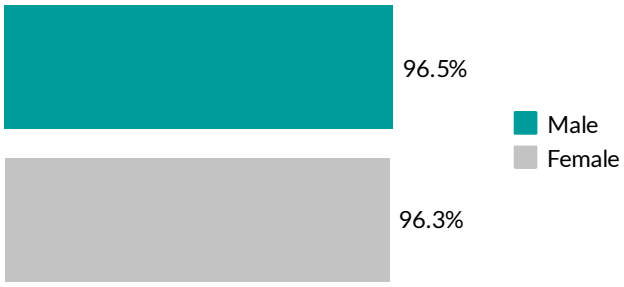
Age

Approximately 97.6% of children ages 0-3 years either received needed health care or did not need health care.



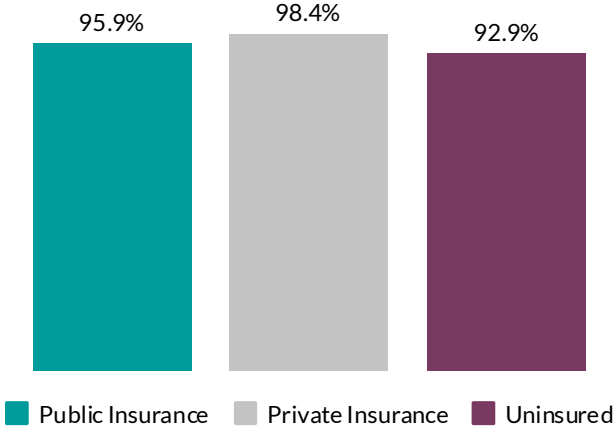
Gender

Among male children, 96.5% either received needed health care or did not need health care compared to 96.3% of female children.



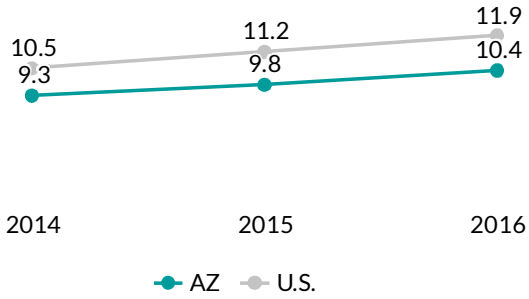
Payer

Approximately 98.4% of children with private insurance either received the health care they needed or did not need health care compared to 92.9% of uninsured children.



Autism Spectrum Disorder

Significance



Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges. The prevalence of ASD has risen sharply over the last two decades. However, the average age at diagnosis for ASD is 4 years old, while the American Academy of Pediatrics recommends screening beginning at nine months. Interventions for ASD are more effective when they are started earlier.

Data Source: https://www.cdc.gov/ncbddd/autism/index.html

Trend Analysis (2014-2016)

Data Source: Department of Education, 2014-2016

This analysis compares the Arizona trend to the U.S. trend in ASD from 2014-2016. The rates for both Arizona and the U.S. have been increasing; the rate in Arizona has been consistently lower than the rate of the U.S. In 2016, Arizona's rate was 10.4 per 1,000 children compared to the U.S. rate of 11.9 per 1,000 children.

Arizona Analysis (2014)

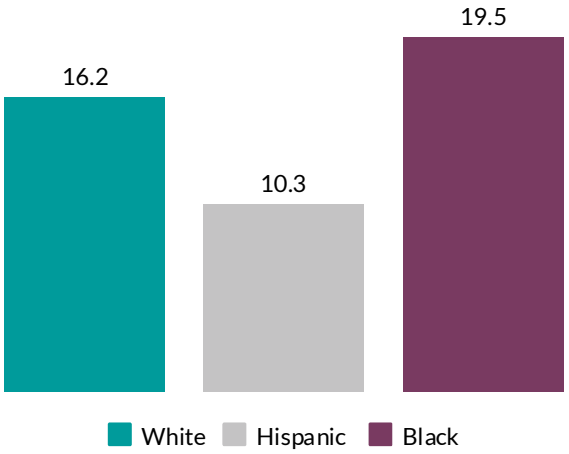
Data Source: US DHHS, CDC - MMWR April 27, 2018, Vol 67, No 6

Arizona ASD Rate = 14.0 per 1,000 Children Ages 8 Years

Data presented is from 15 school districts in Maricopa County and is not meant to be representative of the state of Arizona.

Race / Ethnicity

Black children were identified with ASD at a rate of 19.5 per 1,000 children compared to Hispanic children who were identified at a rate of 10.3 per 1,000 children.



Gender

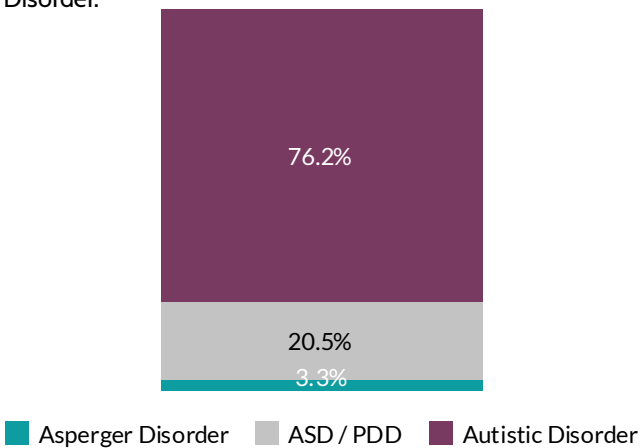
Male children were identified with ASD at a rate of 21.1 per 1,000 children compared to female children who were identified at a rate of 6.6 per 1,000 children.

Median Age of Earliest Known ASD Diagnosis

The median age of diagnosis was 74, 61, and 55 months for Asperger Disorder, ASD / PDD (Pervasive Developmental Disorder, not otherwise specified), and Autistic Disorder, respectively.

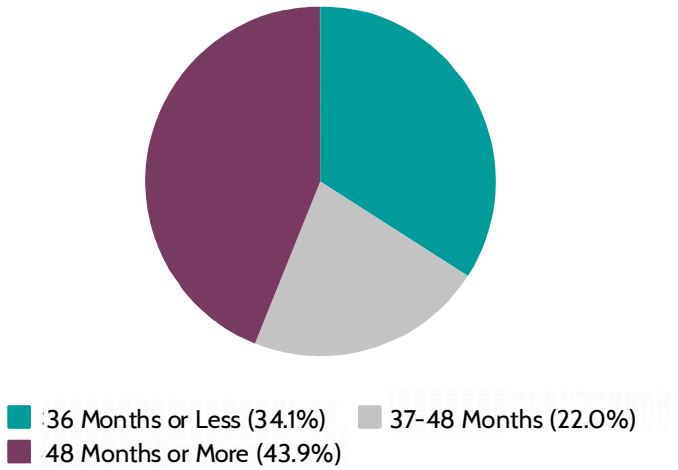
Distribution of ASD Subtype

The majority of children identified with ASD, were identified with Autistic Disorder (76.2%), followed by 20.5% who were identified with ASD / PDD, and 3.3% identified with Asperger Disorder.



Earliest Age When Child Received Comprehensive Evaluation

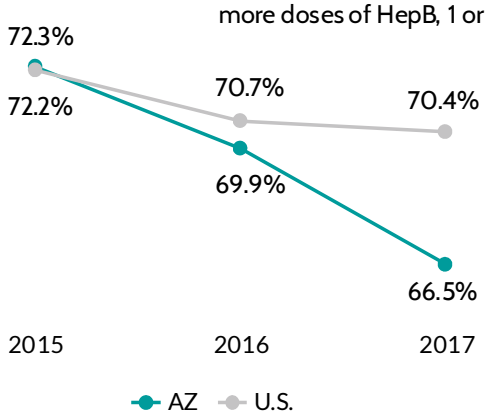
Of all children identified with ASD, 43.9% were identified at 48 months or more.



Child Vaccination

Significance

Vaccination is one of the greatest public health achievements of the 20th century, resulting in dramatic declines in morbidity and mortality for many infectious diseases. Childhood vaccination in particular is considered among the most cost-effective preventive services available, as it averts a potential lifetime lost to death and disability. The combined 7 vaccine series (4:3:1:3*:3:1) for children ages 19 through 35 months entails: 4 or more doses of DTaP, 3 or more doses of Polio, 1 or more doses of MMR, Hib full series, 3 or more doses of HepB, 1 or more doses of Varicella, and 4 or more doses of PCV.



Data Sources:
https://www.cdc.gov/vaccines/index.html
https://www.cdc.gov/vaccines/imz-managers/coverage/nis/child/tech-notes.html

Trend Analysis (2015-2017)

Data Source: National Immunization Survey, 2015-2017

This analysis compares the Arizona trend to the U.S. trend in child vaccinations from 2015-2017. Both the Arizona rate and U.S. rate decreased from 2015 to 2017. In 2017, 66.5% of Arizona children ages 19-35 months completed the combined 7-vaccine series compared to the overall U.S. rate of 70.4% of children completing the 7-vaccine series.

Arizona Analysis (2019)

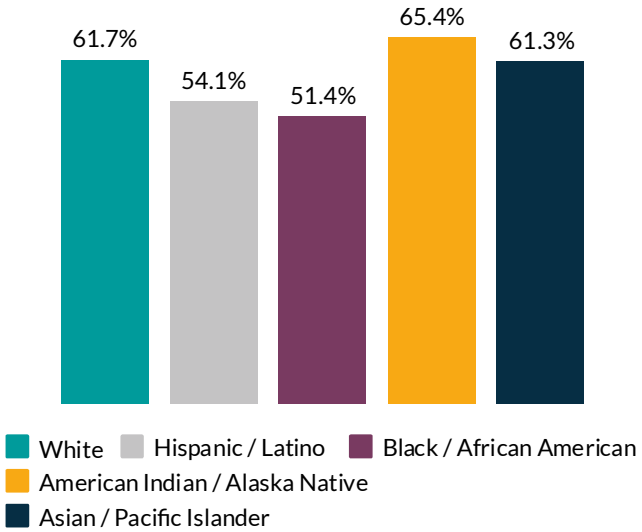
Data Source: Arizona State Immunization Information System (ASIIS), 2019

Arizona Child Vaccination Rate = 56.4% of Children Ages 19-35 Months

Children who are exempted are not part of the overall comparative total. To be in the ASIIS database, a child needs to have receive at least one vaccine in Arizona.

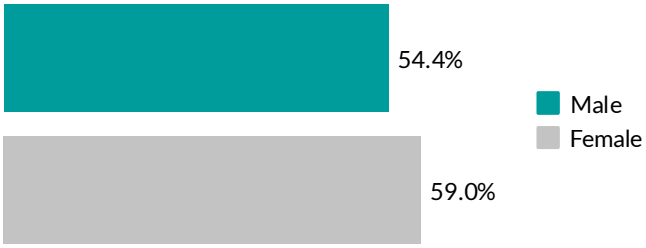
Race / Ethnicity

Approximately 65.4% of American Indian children completed the combined 7-vaccine series; while only 51.4% of Black children completed the 7-vaccine series.



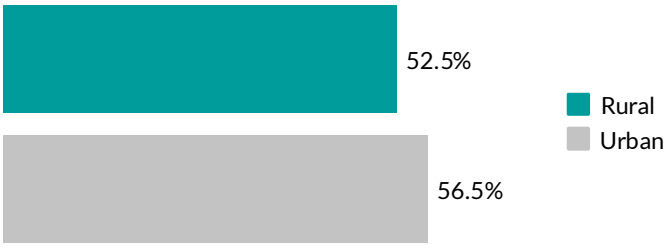
Gender

Approximately 59.0% of female children completed the 7-vaccine series compared to 54.4% of male children.



Geography

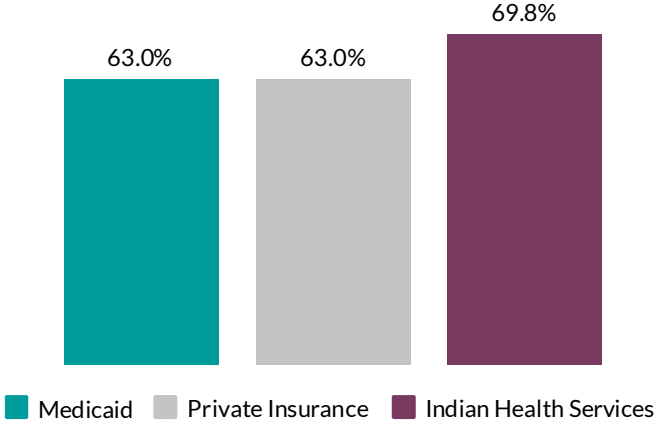
Of children living in urban counties, 56.5% completed the combined 7-vaccine series; whereas 52.5% of children in rural counties completed the combined 7-vaccine series.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer

Approximately 69.8% of children with Indian Health Services as a payer completed the 7-vaccine series compared to 63.0% of children with Medicaid or Private insurance who completed the 7-vaccine series.



Child Vaccination Exemptions

Significance

State and local vaccination requirements for daycare and school entry are important tools for maintaining high vaccination coverage rates, and in turn, lower rates of vaccine-preventable diseases (VPDs). Vaccination requirements that reach more children through a broad range of facilities, that have more requirements for receiving an exemption, that require parental documentation of exemption requests, and that are implemented with strong enforcement and monitoring may help promote higher rates of vaccination coverage, and in turn, lower rates of VPDs. Ongoing provider outreach and public education about vaccines and the diseases they prevent may also lead to such an increase.

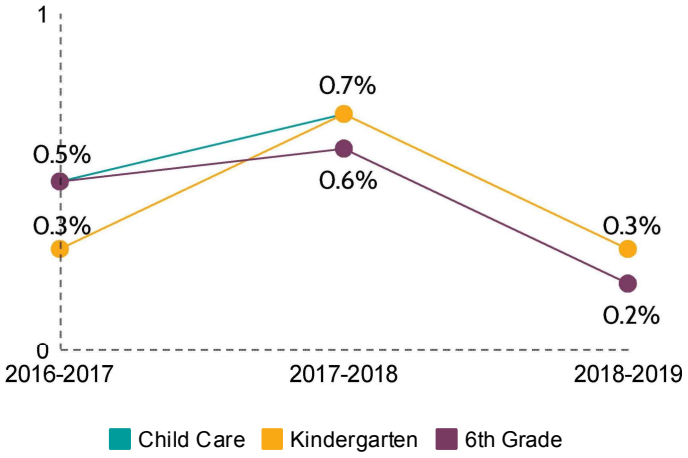
Data Source: https://www.cdc.gov/vaccines/imz-managers/laws/state-reqs.html

ADHS Analysis (2016-2017 to 2018-2019 School Year)

Data Source: Arizona Immunization Statistics Reports, 2016-2019

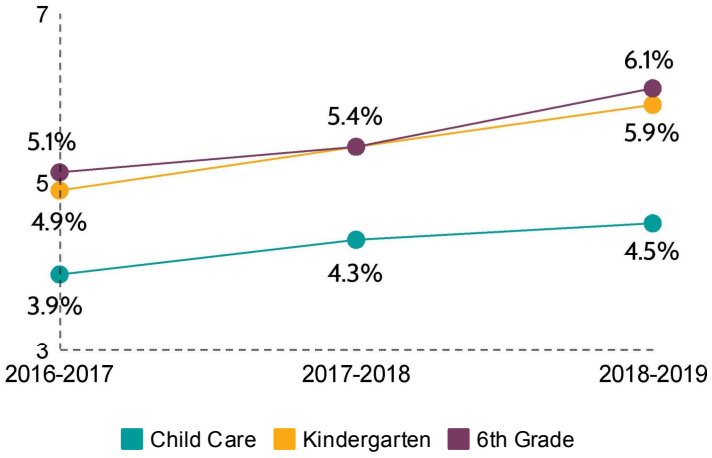
Medical Exemptions

There was an increase in medical exemptions during the 2016-2017 school year for child care, kindergarten, and 6th grade students. However, during the 2017-2018 school year the percentage of students in each of those groups filing a medical exemption declined during the 2018-2019 school year. During the 2018-2019 school year, 0.3% child care and kindergarten students received a medical exemption whereas 0.2% of 6th grade students received a medical exemption.



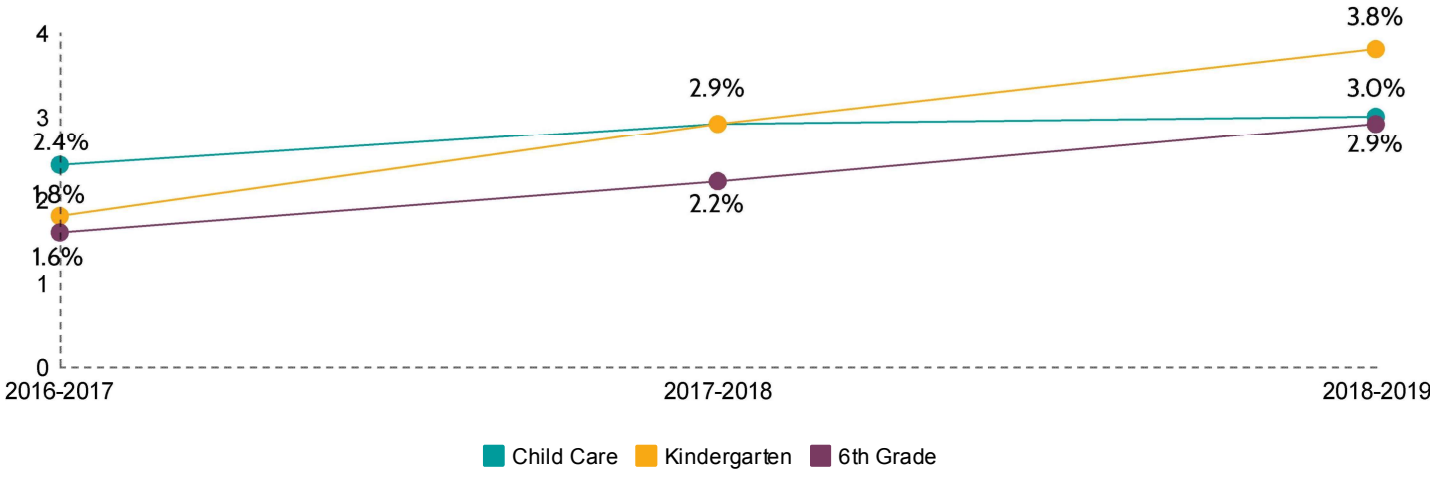
Personal Exemptions

Personal exemption rates have been increasing for child care, kindergarten, and 6th grade students over the past three school years. During the 2018-2019 school year, 6.1% of 6th grade students received a personal exemption, followed by 5.9% of kindergartners and 4.5% of children in child care.



Exempt from Every Required Vaccine

The percentage of child care, kindergarten, and 6th grade students acquiring exemptions from every required vaccine has been increasing for the past three school years. During the 2018-2019 school year, 3.8% of kindergartners were exempt from every required vaccine compared to 2.9% of 6th grade students.



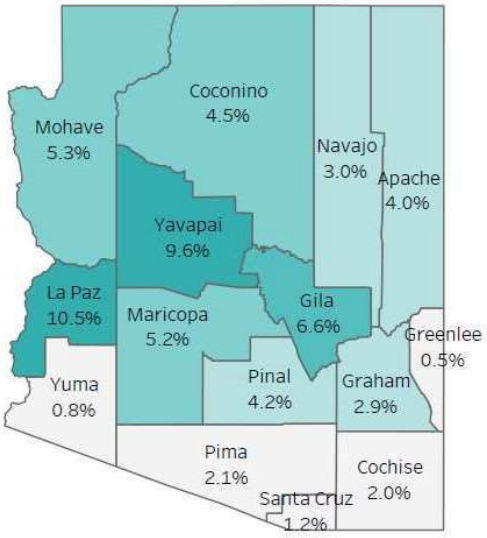
See Reverse Side for Additional Information

Child Vaccination Exemptions

Personal Exemptions by County for Child Care, Kindergarten, and 6th Grade Children

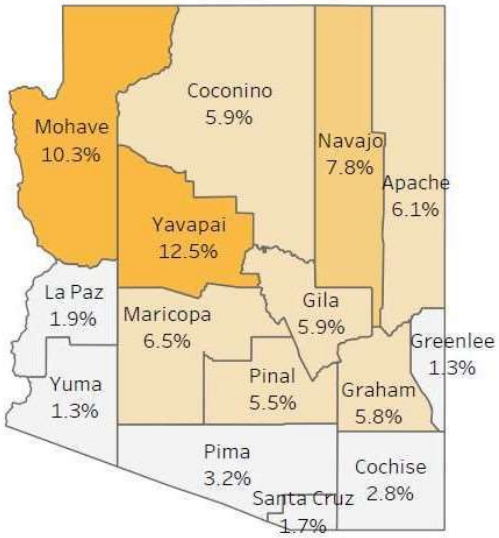
Child Care

During the 2018-2019 school year, 10.5% of children living in La Paz County who were in child care received a personal exemption compared to 0.5% of children living in Greenlee County who were in child care.



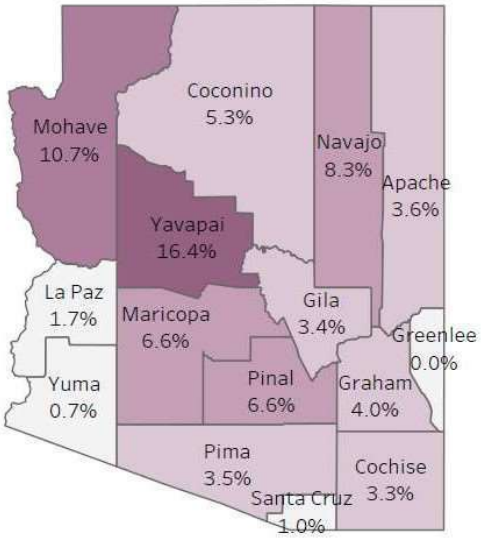
Kindergarten

During the 2018-2019 school year, 12.5% of children living in Yavapai County who were in kindergarten received a personal exemption compared to 1.3% of children living in Greenlee and Yuma Counties who were in kindergarten.



6th Grade

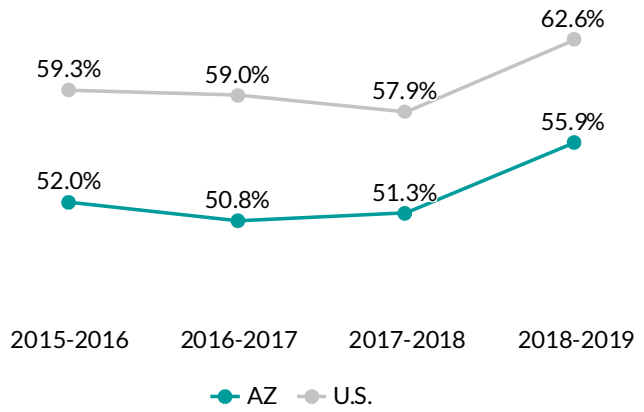
During the 2018-2019 school year, 16.4% of children living in Yavapai County who were in kindergarten received a personal exemption compared to 0.0% of children living in Greenlee County who were in 6th grade.



Flu Vaccination

Significance

Influenza is a potentially serious disease that can lead to hospitalization and sometimes even death. Every flu season is different, and influenza infection can affect people differently, but millions of people get the flu every year, hundreds of thousands of people are hospitalized and thousands or tens of thousands of people die from flu-related causes every year. An annual seasonal flu vaccine is the best way to help protect against flu. Data presented is on children ages 6 months-17 years.



Data Source:
https://www.cdc.gov/flu/prevent/keyfacts.htm

Trend Analysis (2015-2016 to 2018-2019 Flu Season)

Data Source: National Immunization Survey, 2015-2019

This analysis compares the Arizona trend to the U.S. trend in flu vaccinations from the 2015-2016 to 2018-2019 flu season. Both the Arizona rate and U.S. rate remained relatively stagnant from 2015-2016 to 2017-2018, but then increased during the 2018-2019 flu season. During the 2018-2019 flu season, 55.9% of Arizona children ages 6 months-17 years received the flu vaccine compared to the overall U.S. rate of 62.6% of children receiving the flu vaccine.

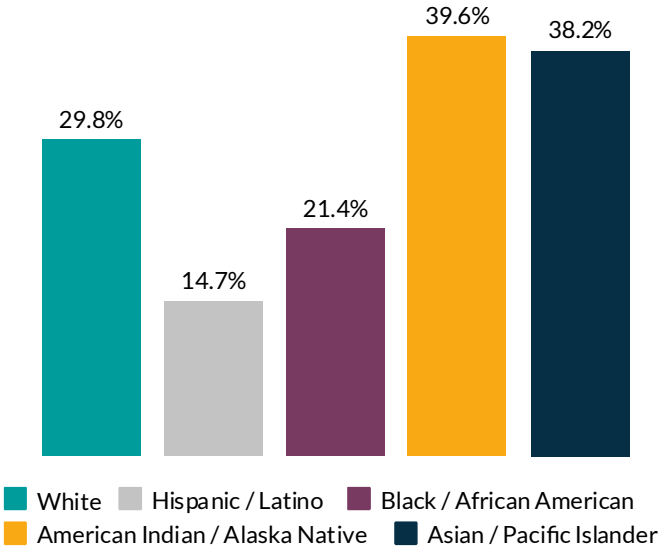
Arizona Analysis (2018-2019 Flu Season)

Data Source: Arizona State Immunization Information System, 2019

Arizona Flu Vaccination Rate = 25.1% of Children Ages 6 Months-17 Years

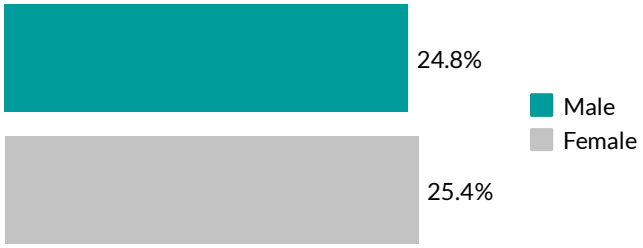
Race / Ethnicity

Approximately 39.6% of American Indian / Alaska Native children received the flu vaccine, while only 14.7% of Hispanic / Latino children received the flu vaccine.



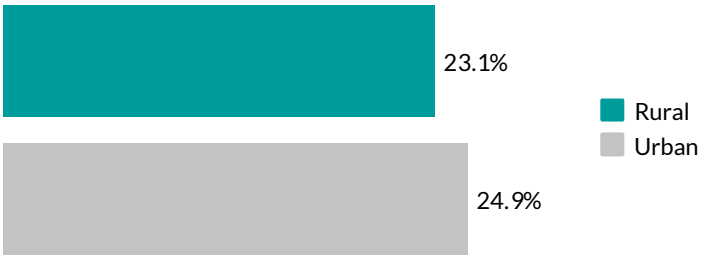
Gender

Approximately 25.4% of female children received the flu vaccine compared to 24.8% of male children.



Geography

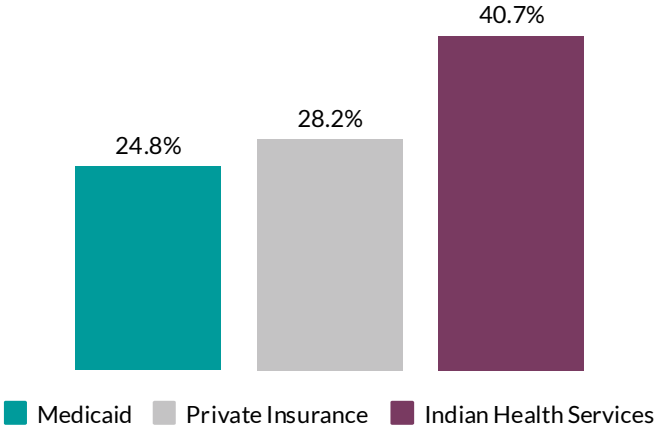
Of children living in urban counties, 24.9% received the flu vaccine, whereas 23.1% of children living in rural counties received the flu vaccine.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer

Approximately 40.7% of children with Indian Health Services as a payer received the flu vaccine compared to 24.8% of children with Medicaid insurance who received the flu vaccine.

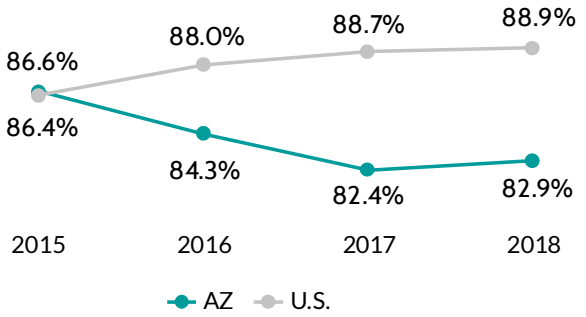


Tdap Vaccination

Significance

Tdap provides protection against tetanus, diphtheria, and whooping cough (pertussis). Children younger than 7 years old get DTaP, while older children, teens, and adults get Tdap. Tetanus causes painful muscle tightening and stiffness, usually all over the body. Diphtheria can cause a thick coating to form in the back of the throat and can lead to breathing problems, heart failure, paralysis, and death. Whooping cough can cause severe coughing spells, which can cause difficulty breathing, vomiting, and disturbed sleep. Data presented is on adolescents ages 13-17 years.

Data Sources:
https://www.cdc.gov/pertussis/vaccines.html
https://www.cdc.gov/vaccines/hcp/vis/vis-statements/tdap.html



Trend Analysis (2015-2018)

Data Source: National Immunization Survey, 2015-2018

This analysis compares the Arizona trend to the U.S. trend in adolescents ages 13-17 years who have received at least one dose of the Tdap vaccine from 2015-2018. The U.S. rate has been increasing while the Arizona rate has been decreasing. In 2018, 82.9% of Arizona adolescents had received at least one dose of the Tdap vaccine compared to the overall U.S. rate of 88.9% of adolescents who had received at least one dose.

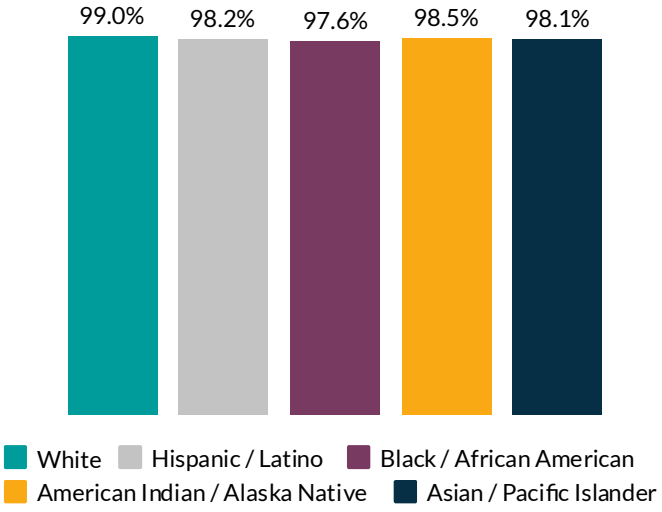
Arizona Analysis (2019)

Data Source: Arizona State Immunization Information System, 2019

Arizona Tdap Vaccination Rate = 98.5% of Adolescents Ages 13-17 Years Who Received at Least One Dose On / After their 10th Birthday

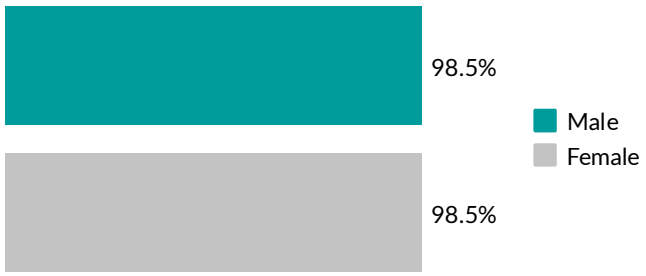
Race / Ethnicity

Nearly all adolescents in each race / ethnicity received at least one dose of the Tdap vaccine, where 99.0% of White adolescents received at least one dose of the vaccine.



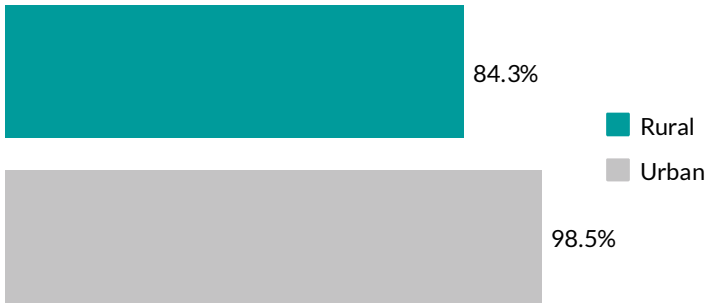
Gender

Approximately 98.5% of female and male adolescents received at least one dose of the Tdap vaccine.



Geography

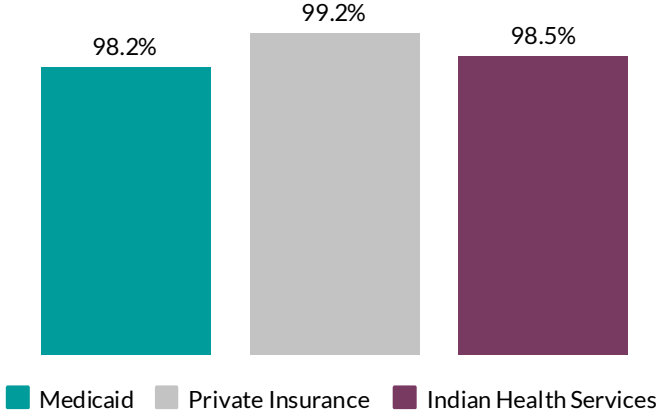
Of adolescents living in urban counties, 98.5% received at least one dose of the Tdap vaccine; whereas 84.3% of adolescents living in rural counties received at least one dose of the Tdap vaccine.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer

Nearly all adolescents in each payer group received at least one dose of the Tdap vaccine, where 99.2% of adolescents with private insurance received at least one dose of the vaccine.

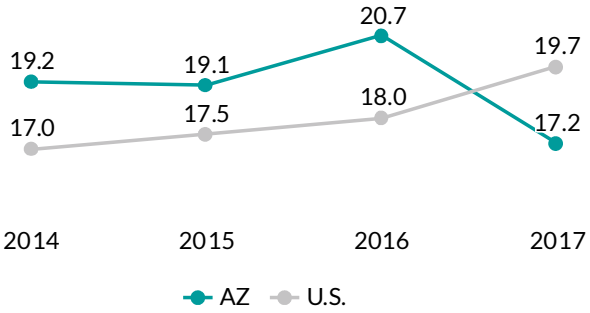


Child Mortality

Significance

Although the risk of death for children declines sharply beyond infancy, thousands of children in the U.S. die each year. Unintentional injury continues to be the leading cause of death in children 1 to 9 years. Other leading causes include congenital malformations, cancer, and homicide.

Data Source:
Heron M. Deaths: Leading Causes for 2014. National Vital Statistics Reports. 2016 June 30. 65(5).



Trend Analysis (2014-2017)

Data Source: National Vital Statistics System, 2014-2017

This analysis compares the Arizona trend to the U.S. trend in child mortality from 2014-2017. The Arizona and U.S. trend lines were steadily increasing from 2014-2014. However, in 2017, the Arizona rate decreased to 17.2 deaths per 100,000 children compared to the U.S. rate of 19.7 deaths per 100,000 children.

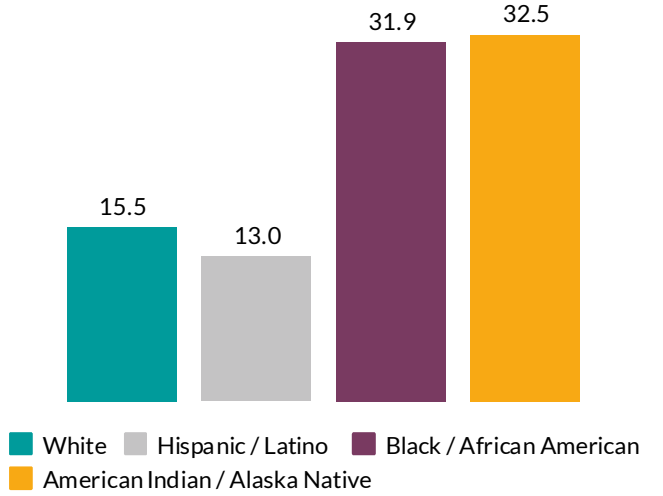
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Child Mortality Rate = 16.3 per 100,000 Children Ages 1-9 Years

Race / Ethnicity

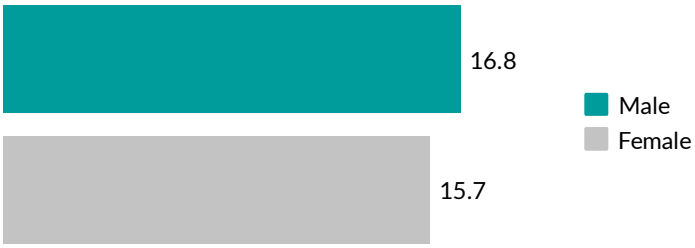
The child mortality rate among American Indian / Alaska Native children was 32.5 per 100,000 children; whereas among Hispanic / Latino children the rate was 13.0 per 100,000 children.



Data for Asian / Pacific Islander children not included due to a small sample size.

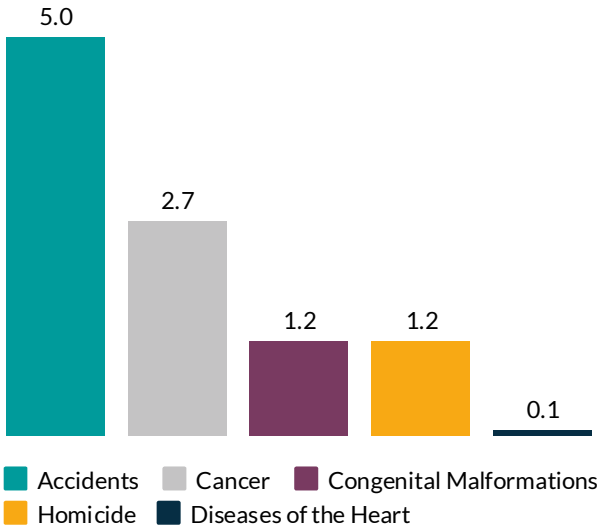
Gender

The child mortality rate was 16.8 and 15.7 per 100,000 children for male and female children, respectively.



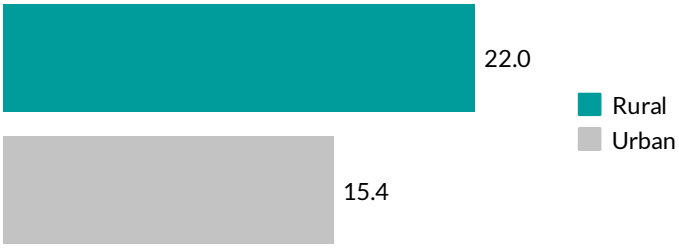
Top 5 Causes of Death

The top cause of death was accidents (unintentional injuries such as, motor vehicle accidents and drownings) which occurred at a rate of 5.0 per 100,000 children. The second most common cause of death was cancer at a rate of 2.7 per 100,000 children. The third most common cause was congenital malformations and homicide followed by diseases of the heart.



Geography

The rate of child mortality among rural counties was 22.0 per 100,000 children and 15.4 per 100,000 children in urban counties.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
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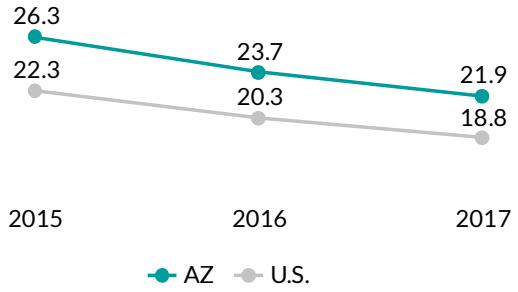
Maternal and Child Health Indicator

Teen Births

Significance

Teen pregnancy and childbearing have substantial social and economic costs for both teens and their children. Teen mothers (births to female adolescents ages 15-19 years) are less likely to complete high school and further education which may reduce earning potential and contribute to inter-generational poverty. Although teen pregnancy and birth rates have declined substantially over the past two decades, rates are still higher than in many other industrialized countries and large racial / ethnic disparities persist. Birth rates for non-Hispanic Black and Hispanic teens are more than double that of non-Hispanic White teens.

Data Source: https://www.cdc.gov/teenpregnancy/about/index.htm



Trend Analysis (2015-2017)

Data Source: Arizona Vital Records, 2015-2017

This analysis compares the Arizona trend to the U.S. trend in teen births from 2015-2017. The rates for both Arizona and the U.S. have been declining; Arizona has been consistently higher than the rate of the U.S. In 2017, Arizona's rate was 21.9 per 1,000 females compared to the U.S. rate of 18.8 per 1,000 females.

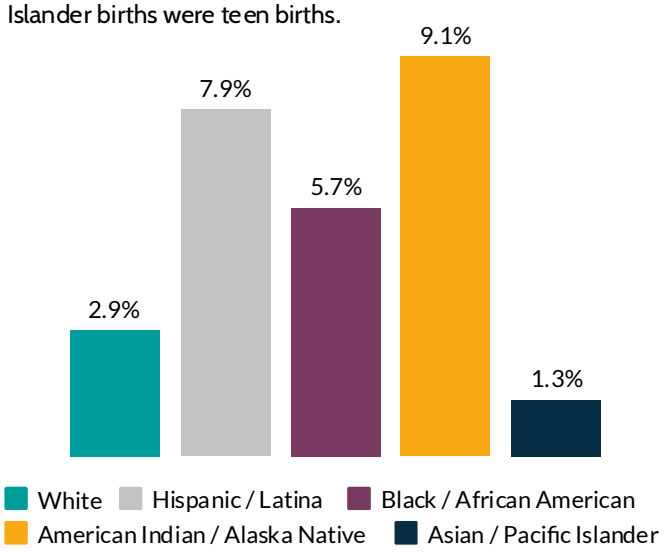
Arizona Analysis (2019)

Data Sources: Arizona Vital Records, 2019

Arizona Teen Birth Rate = 18.5 per 1,000 Females Ages 15-19 Years

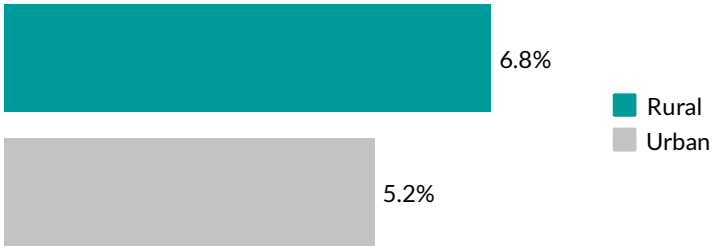
Race / Ethnicity

Approximately 9.1% of all American Indian / Alaska Native births were teen births while 1.3% of all Asian / Pacific Islander births were teen births.



Geography

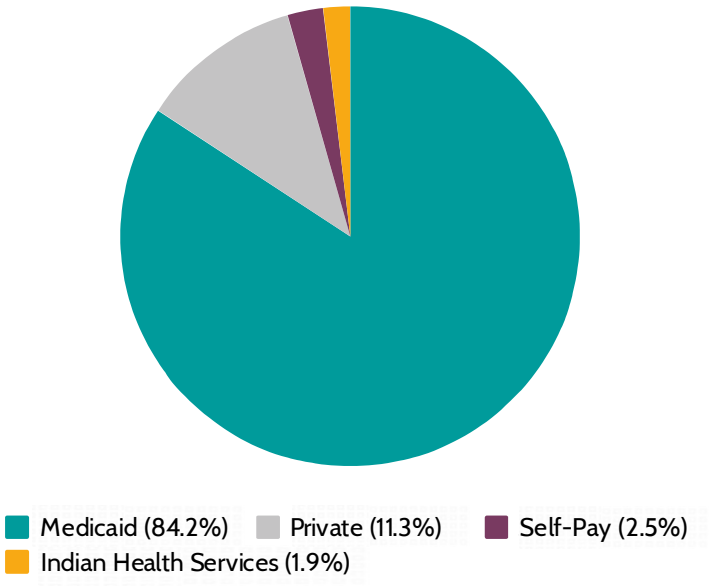
Of all rural births, 6.8% were teen births whereas 5.2% of all urban births were teen births.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

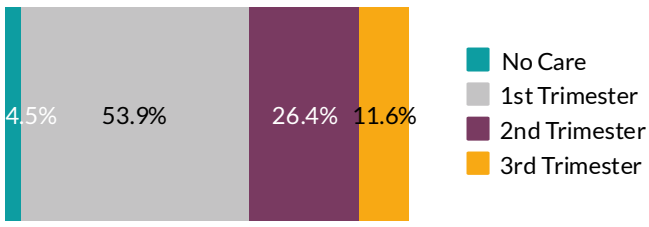
Payer

Of all teen births, 84.2% were paid for by Medicaid, followed by 11.3% by private insurance, 2.5% were self-paid, and 1.9% were paid by Indian Health Services.



Entry into Prenatal Care

The majority of teenage females who gave birth to a live infant (53.9%) began prenatal care in their 1st trimester, followed by 26.4% entering care during their 2nd trimester, and 11.6% in their third trimester. Very few females (4.5%) received no care at all. Additionally, it is unknown when 3.7% of teenage females who gave birth entered prenatal care.

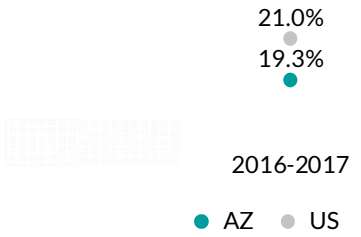


Bullying (Victimization)

Significance

Bullying, particularly among adolescents ages 12 through 17 years, is a major public health problem. Bullying is unwanted, aggressive behavior among school aged children that involves a real or perceived power imbalance. The behavior is repeated, or has the potential to be repeated, over time. A victim of bullying may experience others making threats at them, spreading rumors about them, being physically or verbally attacked, and being excluded from groups. Experiencing bullying is associated with a number of behavioral, emotional, and physical adjustment problems. Victims of bullying tend to report feelings of depression, anxiety, low self-esteem, and isolation; poor school performance; suicidal ideation; and suicide attempts.

Data Source: www.stopbullying.gov



Analysis (2016-2017)

Data Source: National Survey of Children's Health (NSCH), 2016-2017

This analysis compares the Arizona rate to the U.S. rate in adolescents who were the victims of bullying in 2016-2017. The U.S. rate is higher at 21.0% compared to Arizona's rate of 19.3% of adolescents who have been victims of bullying.

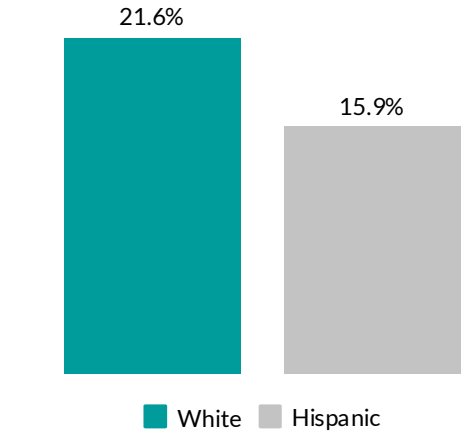
Arizona Analysis (2016-2017)

Data Sources: Youth Risk Behavior Survey, 2017
National Survey of Children's Health (NSCH), 2016-2017

Arizona Bullying (Victimization) Rate = 19.3% of Adolescents Ages 12-17 Years

Race / Ethnicity

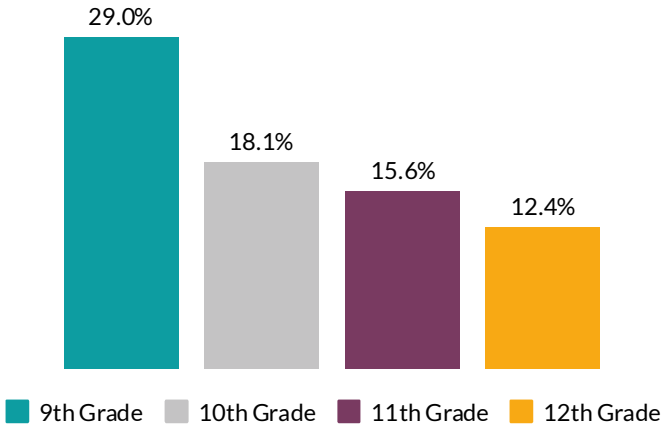
Approximately 21.6% and 15.9% of White and Hispanic adolescents, respectively, were bullied at school.



Data for Black adolescents not included due to a small sample size.

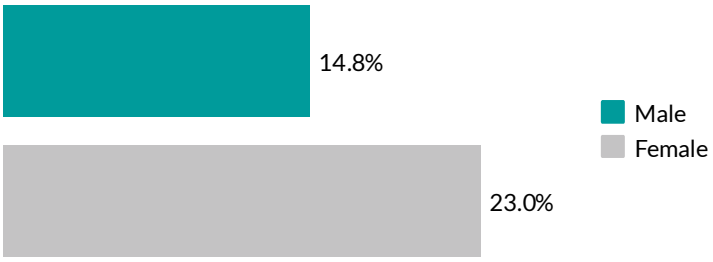
Grade Level

Of all 9th graders, 29.0% report being bullied at school, followed by 18.1% of 10th graders, then 15.6% of 11th graders. Adolescents in the 12th grade reported being bullied the least at 12.4%.



Gender

Approximately 23.0% of female adoleslcents and 14.8% of male adolescents were bullied at school.

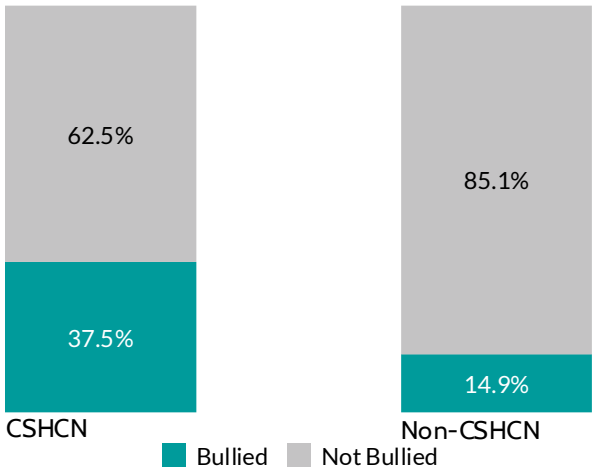


School Property and Cyber Bullying

Approximately 19.2% of adolescents reported being bullied at school, while 15.2% of adolescents reported being electronically bullied.

Children with Special Health Care Needs

Of children with special health care needs (CSHCN), 37.5% were bullied while 14.9% of non-CSHCN were bullied.



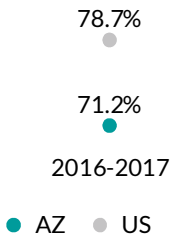
The data for CSHCN should be interpreted with caution due to a wide confidence interval.

Adolescent Well Visit

Significance

Adolescence (ages 12 through 17 years) is a period of major physical, psychological, and social development. An annual preventive well visit may help adolescents adopt or maintain healthy habits and behaviors, avoid health-damaging behaviors, manage chronic conditions, and prevent disease. The visit should cover a comprehensive set of preventive services, such as a physical examination, immunizations, and discussion of health-related behaviors including healthy eating, physical activity, substance use, sexual behavior, violence, and motor vehicle safety.

Data Source: National Adolescent and Young Adult Health Information Center (2016). Summary of Recommended Guidelines for Clinical Preventive Services for Adolescents up to age 18.



Analysis (2016-2017)

Data Source: National Survey of Children's Health (NSCH), 2016-2017

This analysis compares the Arizona rate to the U.S. rate in adolescent well visits from 2016-2017. The U.S. rate is slightly higher at 78.7% compared to Arizona's rate of 71.2% of adolescents who completed an annual well visit.

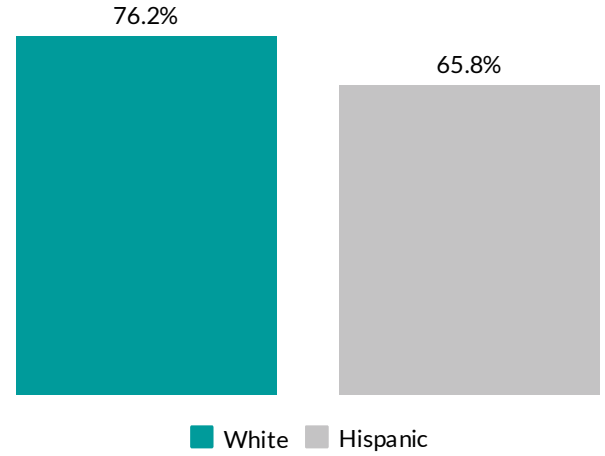
Arizona Analysis (2016-2017)

Data Source: National Survey of Children's Health (NSCH), 2016-2017

Arizona Adolescent Well Visit Rate = 71.2% of Adolescents Ages 12-17 Years

Race / Ethnicity

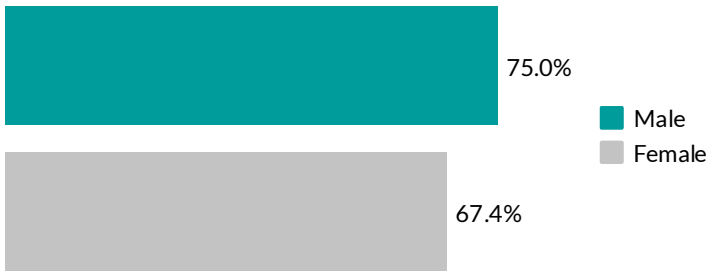
Approximately 76.2% of White adolescents completed their annual well visit compared to 65.8% of Hispanic adolescents.



Data for Black and Asian adolescents not included due to small sample sizes.

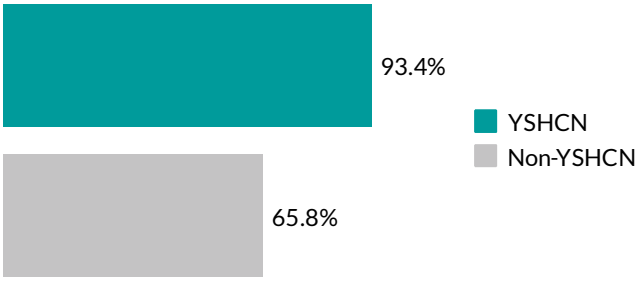
Gender

Approximately 75.0% of adolescent males completed their annual well visit compared to only 67.4% of adolescent females.



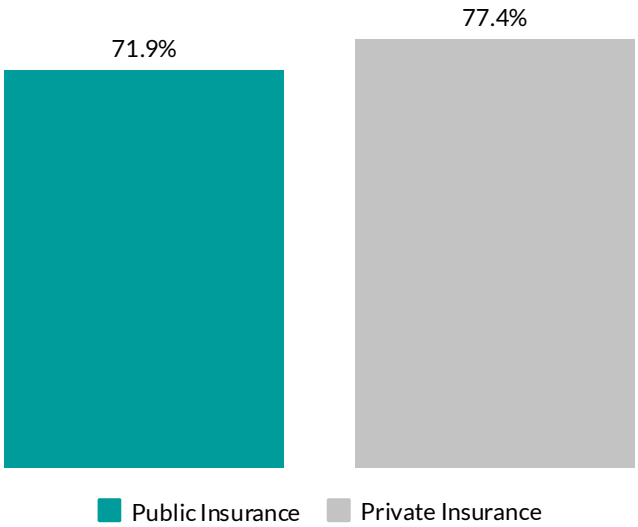
Youth with Special Health Care Needs

Of the youth with special health care needs (YSHCN), 93.4% completed their annual well visit compared to non-YSHCN where 65.8% completed their annual well visit.



Payer for Services

Of the adolescents with private insurance, 77.4% completed their annual well visit, compared to 71.9% of adolescents with public insurance.



The data for Public insurance should be interpreted with caution due to large confidence intervals. The data for uninsured adolescents was not included due to a small sample size.

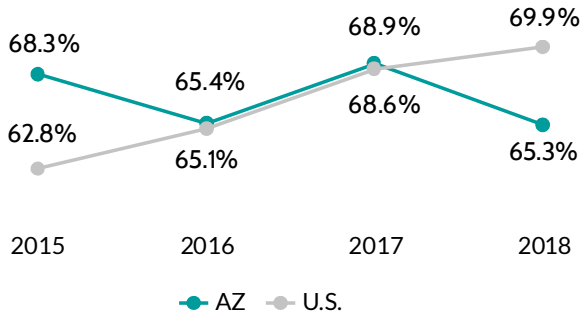
Maternal and Child Health Indicator

HPV Vaccination (Female)

Significance

Every year in the United States, 33,700 women and men are diagnosed with a cancer caused by HPV infection. HPV vaccination could prevent more than 90% of these cancers, 31,200 cases every year, from ever developing. HPV vaccination prevents more than just cervical cancer. HPV also causes cancers of the vagina and vulva, anus and back of the throat (orohpharynx). Data presented is on females ages 13-17 years who have received at least one dose of the HPV vaccine.

Data Source:
https://www.cdc.gov/hpv/hcp/hpv-important.html



Trend Analysis (2015-2018)

Data Source: National Immunization Survey, 2015-2018

This analysis compares the Arizona trend to the U.S. trend in HPV vaccinations for females ages 13-17 years from 2015-2018. The U.S. rate has been increasing for four years while the Arizona rate overall has decreased. In 2018, 65.3% of Arizona females ages 13-17 years received at least one dose of the HPV vaccine compared to the overall U.S. rate of 69.9% of females ages 13-17 years who received at least one dose of the HPV vaccine.

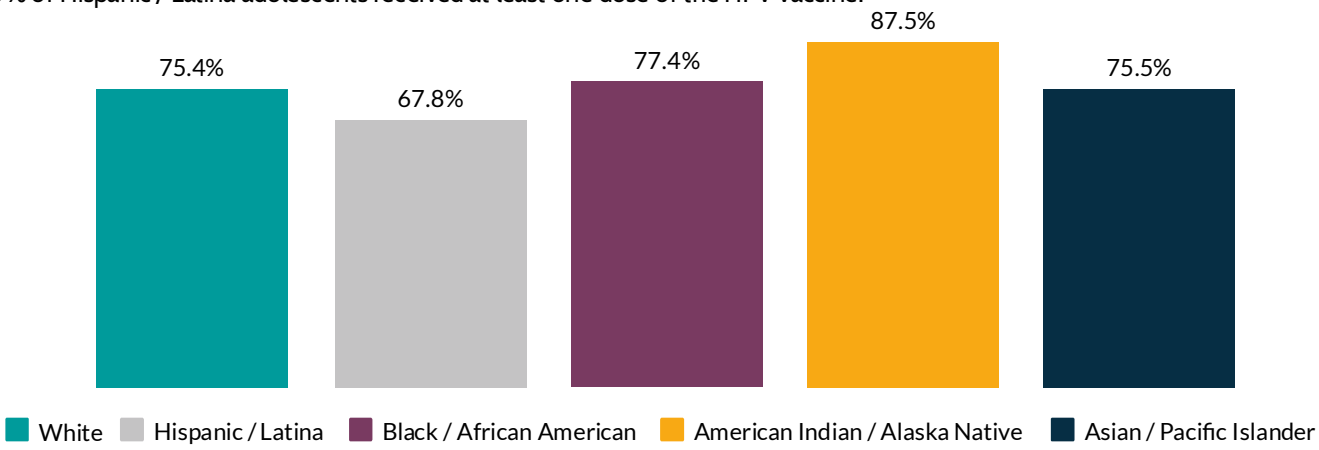
Arizona Analysis (2019)

Data Source: Arizona State Immunization Information System, 2019

Arizona HPV Vaccination Rate = 66.2% of Females Ages 13-17 Years Received at Least One Dose

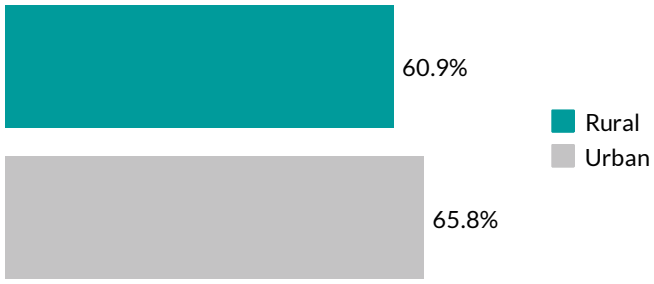
Race / Ethnicity

Approximately 87.5% of American Indian / Alaska Native female adolescents received at least one dose of the HPV vaccine, while 67.8% of Hispanic / Latina adolescents received at least one dose of the HPV vaccine.



Geography

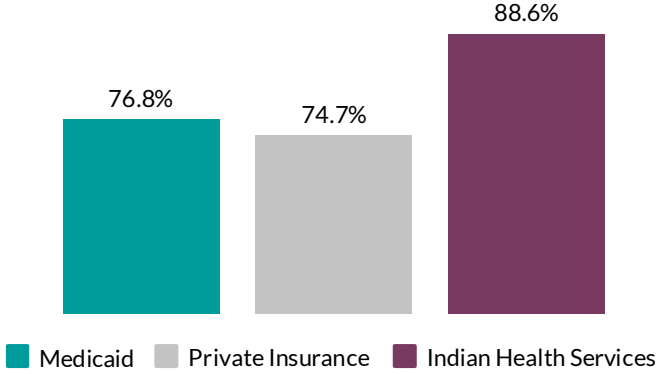
Of the female adolescents living in urban counties, 65.8% received at least one dose of the HPV vaccine; whereas 60.9% of female adolescents living in rural counties received at least one dose of the the HPV vaccine.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer

Approximately 88.6% of female adolescents with Indian Health Services as a payer received at least one dose of the HPV vaccine compared to 74.7% of female adolescents with private insurance.

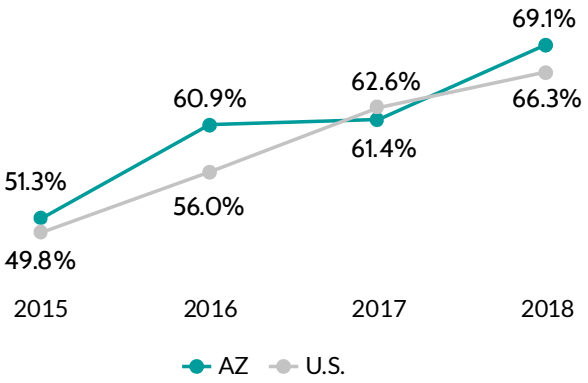


Maternal and Child Health Indicator

HPV Vaccination (Male)

Significance

Every year in the United States, 33,700 women and men are diagnosed with a cancer caused by HPV infection. HPV vaccination could prevent more than 90% of these cancers, 31,200 cases every year, from ever developing. HPV vaccination prevents more than just cervical cancer. HPV also causes cancers of the vagina and vulva, anus and back of the throat (orohpharynx). Data presented is on males ages 13-17 years who have received at least one dose of the HPV vaccine.



Data Source:
https://www.cdc.gov/hpv/hcp/hpv-important.html

Trend Analysis (2015-2018)

Data Source: National Immunization Survey, 2015-2018

This analysis compares the Arizona trend to the U.S. trend in HPV vaccinations for males ages 13-17 years from 2015-2018. Both the U.S. and Arizona rates have increased from 2015 to 2018. In 2018, 69.1% of Arizona males ages 13-17 years received at least one dose of the HPV vaccine compared to the overall U.S. rate of 66.3% of males ages 13-17 years who received at least one dose of the HPV vaccine.

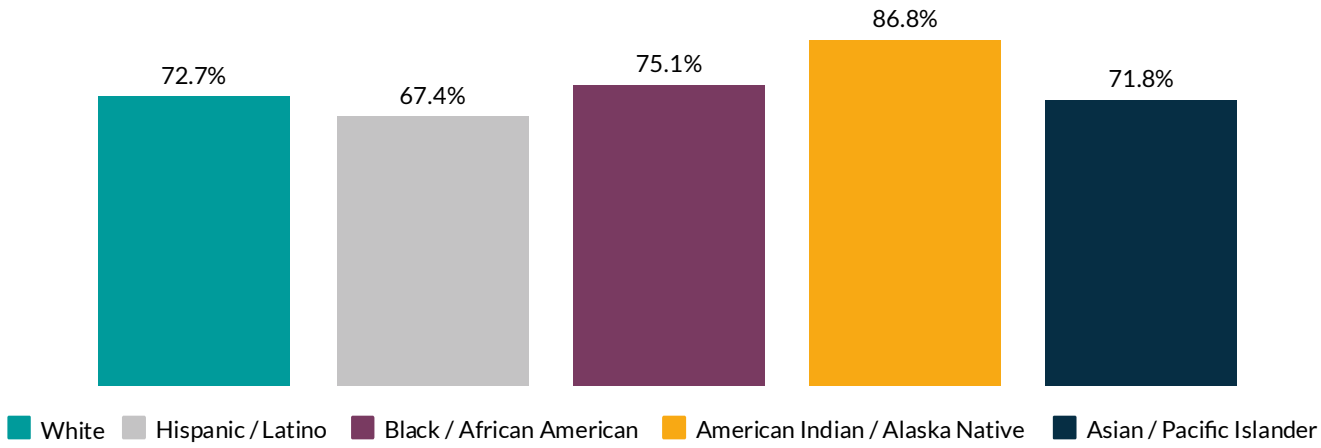
Arizona Analysis (2019)

Data Source: Arizona State Immunization Information System, 2019

Arizona HPV Vaccination Rate = 64.1% of Males Ages 13-17 Years Received at Least One Dose

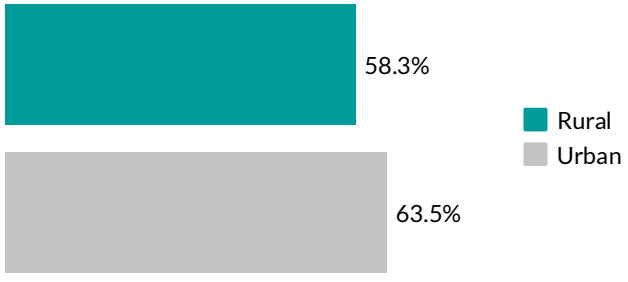
Race / Ethnicity

Approximately 86.8% of American Indian / Alaska Native male adolescents received at least one dose of the HPV vaccine, while 67.4% of Hispanic / Latino male adolescents received at least one dose of the HPV vaccine.



Geography

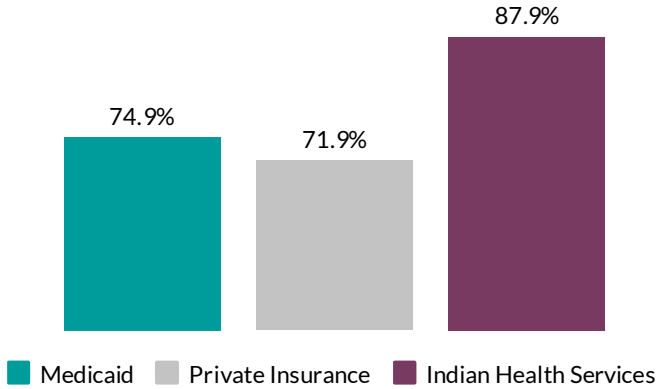
Of the male adolescents living in urban counties, 63.5% received at least one dose of the HPV vaccine; whereas 58.3% of male adolescents living in rural counties received at least one dose of the the HPV vaccine.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Payer

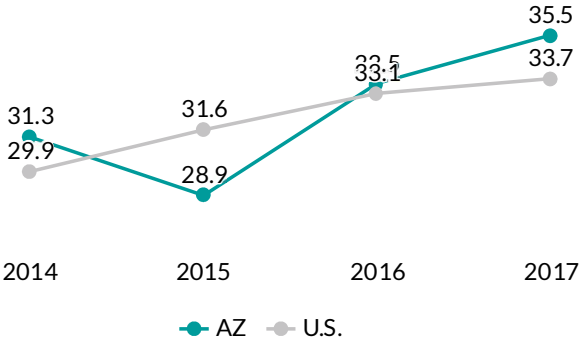
Approximately 87.9% of male adolescents with Indian Health Services as payer received at least one dose of the HPV vaccine compared to 71.9% of male adolescents with private insurance.



Adolescent Mortality

Significance

Although the risk of death declines sharply in early childhood, mortality rates begin to increase again in adolescence. Over 12,000 deaths occurred among U.S. children ages 10 through 19 in 2014. The leading causes of illness and death among adolescents and young adults are largely preventable (unintentional injury, suicide, homicide, and cancers).



Data Source:
Heron M. Deaths: Leading Causes for 2014. National Vital Statistics Reports. 2016 June 30. 65(5).

Trend Analysis (2014-2017)

Data Source: National Vital Statistics System, 2014-2017

This analysis compares the Arizona trend to the U.S. trend in adolescent mortality from 2014-2017. Both the Arizona and U.S. rates have been steadily increasing. In 2017, Arizona had 35.5 deaths per 100,000 adolescents compared to the U.S. rate of 33.7 deaths per 100,000 adolescents.

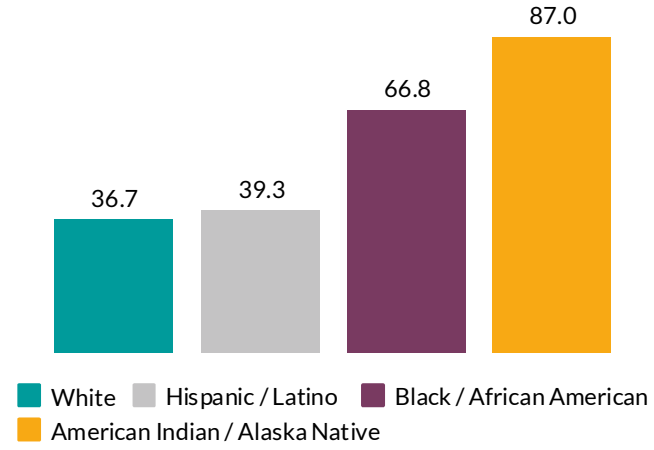
Arizona Analysis (2019)

Data Source: Arizona Vital Records, 2019

Arizona Adolescent Mortality Rate = 41.4 per 100,000 Adolescents Ages 10-19 Years

Race / Ethnicity

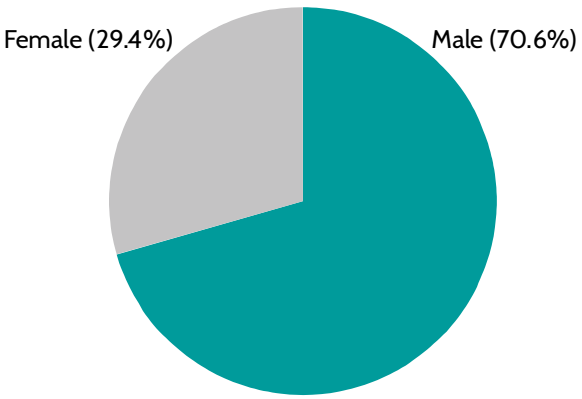
American Indian / Alaska Native and Black / African American adolescents had the highest rates of adolescent mortality at 87.0 and 66.8 per 100,000 adolescents, respectively. Whereas among White adolescents, the mortality rate was 36.7 per 100,000 adolescents.



Data for Asian / Pacific Islander adolescents not included due to a small sample size.

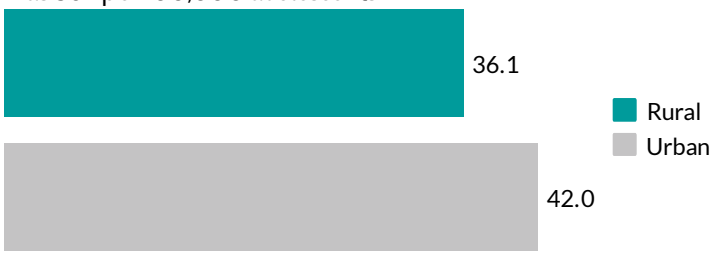
Gender

Nearly three-quarters (70.6%) of all adolescent deaths were males.



Geography

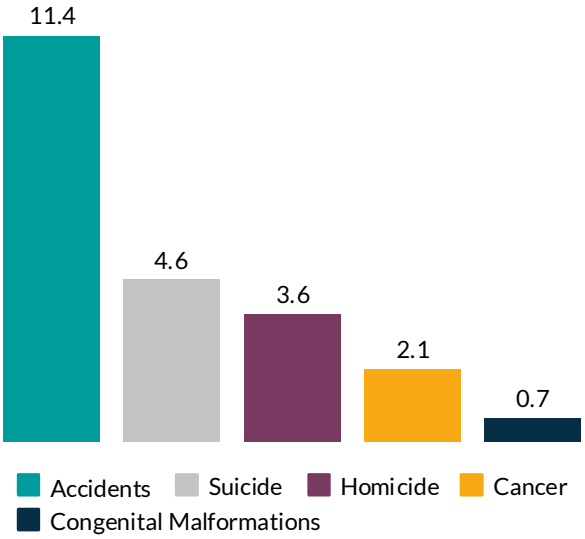
Of all urban counties, adolescent mortality was 42.0 per 100,000 adolescents; whereas among rural counties adolescent mortality was 36.1 per 100,000 adolescents.



Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.

Top 5 Causes of Death

The top cause of death was accidents (unintentional injuries) which occurred at a rate of 11.4 per 100,000 adolescents. The second most common cause of death was suicide (intentional self-harm) at a rate of 4.6 per 100,000 adolescents. The third most common cause was homicide, followed by cancer, and congenital malformations.

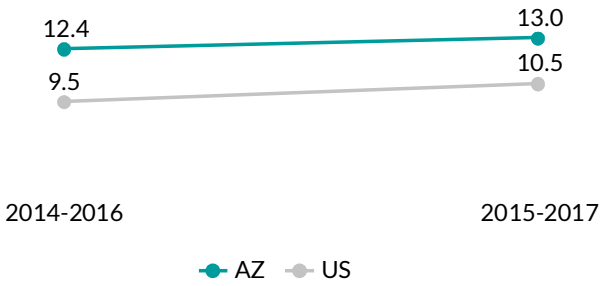


Adolescent Suicide

Significance

Suicide is the second leading cause of death for adolescents ages 15 through 19 years. Suicide and suicidal ideation is often indicative of mental health problems and stressful or traumatic life events. While females are more likely to report considering suicide, males are more likely to succeed in committing suicide. The suicide mortality rate for males is nearly three times that of females.

Data Sources:
Heron M. Deaths: Leading Causes for 2014. National Vital Statistics Reports. 2016 June 30. 65(5).
Child Trends: Data Bank. Suicidal Teens-Indicators of Child and Youth Well-Being. 2016 December.



Trend Analysis (2014-2017)

Data Source: National Vital Statistics System, 2014-2017

This analysis compares the Arizona rate to the U.S. rate in adolescent suicide from 2014-2017. Due to the relatively small number of deaths, each data point represents three-year data. From 2015-2017, Arizona had 13.0 deaths per 100,000 adolescents compared to the U.S. rate of 10.5 deaths per 100,000 adolescents.

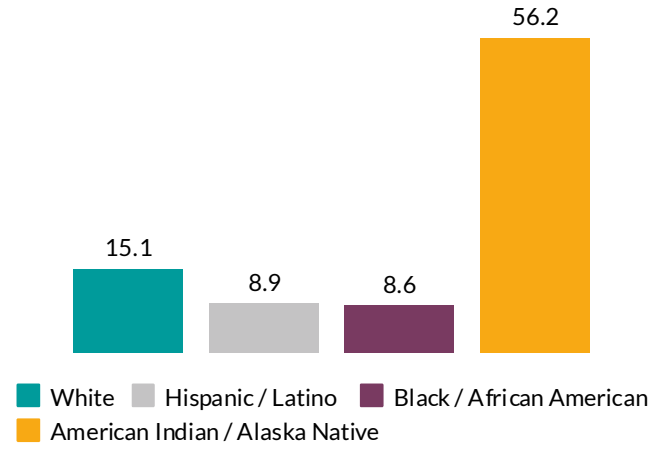
Arizona Analysis (2017-2019)

Data Source: Arizona Vital Records, 2017-2019

Arizona Adolescent Suicide Rate = 13.7 per 100,000 Adolescents Ages 15-19 Years

Race / Ethnicity

Adolescent suicide disproportionately affects American Indian / Alaska Native youth. The rate of adolescent suicide among American Indian / Alaska Native adolescents was 56.2 per 100,000 adolescents; whereas among Black / African American adolescents it was 8.6 per 100,000 adolescents.



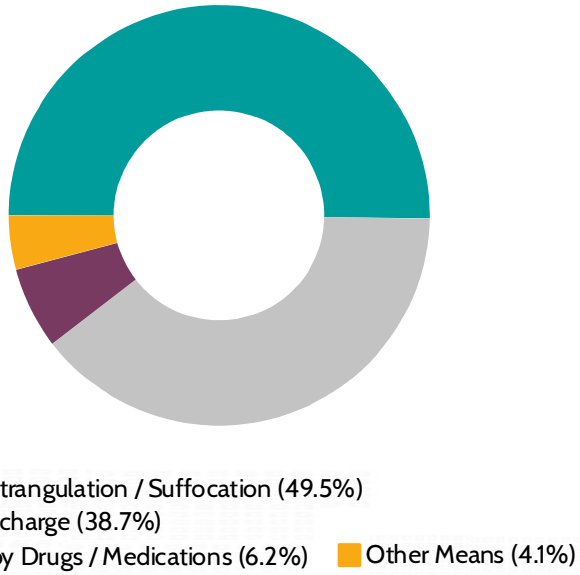
Data for Asian / Pacific Islander adolescents not included due to a small sample size.

Gender

Adolescent suicide disproportionately affects more male than female adolescents. There were 21.0 per 100,000 adolescent male suicides compared to 6.1 per 100,000 adolescent female suicides.

Top 4 Causes of Death

The top four causes of death were: hanging, strangulation, or suffocation (49.5%), firearm discharge or explosive material (38.7%), poisoning by drugs, medications, and biological substances (6.2%), and other specified and unspecified means (4.1%).



Geography

The rate of adolescent suicide was 27.7 per 100,000 adolescents in rural counties whereas adolescent suicide was 11.3 per 100,000 adolescents in urban counties.

Urban Counties = Maricopa, Pima, Pinal, and Yuma.
Rural Counties = Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai.