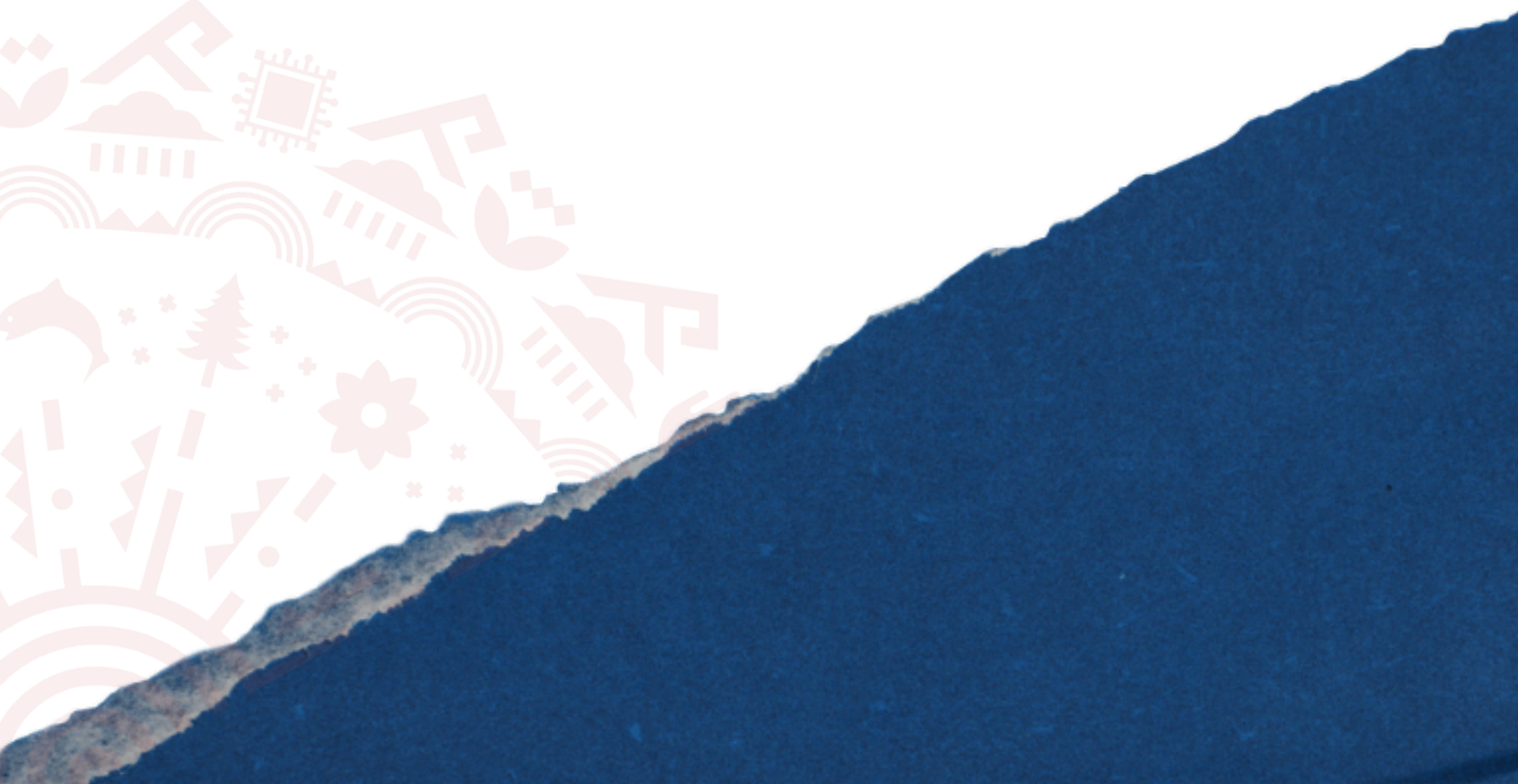
ARIZONA DEPARTMENT OF HEALTH SERVICES

2026

Arizona Adolescent Mental Health Report II

Exploring Risk and Protective Factors

May 2026



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Intended Audience

The report is intended to serve as a valuable resource for policymakers, educators, families, and other stakeholders who are committed to improving the mental health of Arizona's youth. By synthesizing current research and data, the report has been developed to stimulate meaningful dialogue and action across the state, focusing on creating a more supportive environment for adolescents. Ultimately, the insights generated by this report can contribute to developing tailored strategies that promote mental well-being and resilience among young people in Arizona.

We extend our sincere thanks to Dr. Amy Shoptaugh, MD of Phoenix Children's Hospital for sharing valuable insights on the topics addressed in this report. We also gratefully acknowledge all the students who participated in the 2021 Arizona Youth Risk Behavior Survey (YRBS). This report is supported by the Centers for Disease Control and Prevention's Arizona Schools Surveillance Project funds (NU87PS004299-05-01) and Proposition 207 provided by taxes on recreational marijuana sales to address public health issues in Arizona.

Executive Summary

Building upon the findings of the initial "Arizona Adolescent Mental Health Report" (published in October 2024), this report reveals a concerning picture of adolescent mental health challenges in Arizona, including associated risk and protective factors at the family, community, and system levels. The first report highlighted elevated rates of poor mental health, increasing diagnoses of anxiety and depression, and alarming levels of suicidal ideation, thereby underscoring the urgent need to address the contextual issues impacting mental health.

Key findings of this report paint a concerning picture:

1. **Healthcare Access Challenges**

   While acknowledging that some adolescents receive necessary care, the report exposes significant barriers existing in the healthcare access system, which include cost issues, appointment availability, and insurance adequacy. Private insurance holders report facing more coverage challenges than those with public insurance.

2. **Importance of Supportive Environments**

   Our findings underscore the important role of nurturing environments. The mental well-being of both mothers and fathers, family resilience, and supportive neighborhoods and schools emerge as crucial protective factors. Providing emotional support for parenting is highlighted as a vital element in bolstering parental mental health. Conversely, the insidious impact of bullying and a pervasive lack of psychological and physical safety cast a dark shadow over adolescent mental health outcomes.

3. **Impact of Wellness Behaviors**

   Food insecurity, the pervasive pull of excessive screen time, and a lack of sleep and physical activity act as significant threats to mental health. In contrast, the active engagement in physical activity, particularly the teamwork of sports, offers a powerful antidote.

4. **Adverse Childhood Experiences (ACEs)**

   A high prevalence of ACEs among adolescents is linked to poorer mental health and school engagement. Positive Childhood Experiences (PCEs), such as having an adult mentor and family resilience, can mitigate these negative effects.

Overall, the report emphasizes the complex interplay of various social, economic, and environmental factors that profoundly shape the mental health of Arizona adolescents. It highlights the urgent need for increasing comprehensive, collaborative, and statewide efforts to dismantle barriers and cultivate robust support systems to ensure the health and well-being of Arizona's future.

Achieving this vital goal requires a unified approach, where policymakers, healthcare providers, educators, community leaders, and families work together to prioritize adolescent mental health as a shared responsibility and a fundamental aspect of our state's overall well-being.

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Introduction



In our first iteration of the adolescent mental health report published in 2024[1], we found that 4 in 10 Arizona high school students, enrolled in public and charter schools, reported that their mental health is not good most of the time or always, 3 in 10 thought about attempting suicide, and 1 in 10 had attempted suicide. The Arizona trend data between 2017 and 2021 show that the rates of suicide considerations and plans went up by 22% and 35%, respectively. Unhealthy weight control behaviors (e.g., engaging in behaviors like vomiting, fasting, taking diet pills, or excessive exercise in an attempt to control body weight) went up by 48%. Diagnosis of anxiety and depression increased by 55% and 97%, respectively, between 2016-2017 and 2020-2021.

Mental health is a crucial aspect of well-being; adolescence is a developmentally sensitive time and an opportunity to build social and emotional skills, along with healthy coping strategies such as adequate sleep, physical activity, problem-solving, and interpersonal relationships[2]. Considering that the onset of most mental health diagnoses occurs during the early stages of adolescence, it is essential to accurately identify the needs of this population, particularly in our state, and focus our resources on meeting those needs.

In early 2025, a group of partners of the Arizona Youth Risk Behavior Survey and subject matter experts in youth mental health, sharing common interests in answering these questions, gathered to develop a comprehensive report. The group focused on identifying and understanding various factors affecting adolescent mental health and finding actionable solutions using multiple data sources.

This report aims to provide a comprehensive understanding of adolescent mental health in Arizona by examining a wide range of influencing factors. To achieve this, the report is structured into four key sections:

- ★ **Healthcare Access :** This section will delve into the availability and accessibility of preventive and mental healthcare services for adolescents, including factors such as insurance coverage, provider availability, and other barriers.
- ★ **Safe and Supportive Environments and Relationships :** This section will examine how family, peer, and community relationships impact adolescent mental health. It will also explore the role of neighborhood/school environments, bullying, and students' perception of interpersonal support.
- ★ **Lifestyle and Wellness Behaviors and Environments :** This section will explore the influence of lifestyle factors on mental health, such as sleep and physical activity. It will also consider the impact of screen time and food insecurity.
- ★ **Positive and Adverse Childhood Experiences (PACEs) :** This section will explore the relationship between childhood experiences, both positive and negative, and adolescent mental health outcomes. It will also consider the role of trauma.

[1] Arizona Adolescent Mental Health Report I (2024)

[2] World mental health report: transforming mental health for all. (2022)

Within each of these sections, the authors will utilize the latest available data to analyze these connections. The goal is to identify trends, risk factors, and protective factors that can inform effective interventions and policies.

This report is intended to serve as a valuable resource for policymakers, educators, families, and other stakeholders who are committed to improving the mental health of Arizona's youth. The purpose of this report is also to stimulate meaningful dialogue and action across the state, focusing on creating a more supportive environment for adolescents. Ultimately, the insights generated by this report can contribute to promoting mental well-being and resilience among young people in Arizona.

It is also important to note that this report does not establish causal relationships due to the cross-sectional nature of the data. The data sources used for this report do not track individuals over time, meaning they do not capture the short- or long-term effects of specific experiences or environmental factors. Additionally, the data is best represented at the state level. Datasets used for the analysis do not collect or provide information for smaller geographical regions, such as zip codes or counties, nor do they include tribal affiliations when administered to Native American and Alaska Native populations. Further information about the data is provided below.

Data sources used for this report

National Survey of Children's Health (NSCH) – *Parent-Reported*
The NSCH is a US population-based survey conducted by the US Census Bureau. Parents from randomly selected households were invited to participate online or by mail. The survey covers children's physical and psychological health, quality of care, and health determinants in family, community, and school settings. In 2021-2022, 1,615 parents of non-institutionalized children ages 0-17 in Arizona participated in the survey; among them, 547 were parents of adolescents ages 12 or older.

Youth Risk Behavior Survey (YRBS) – *Youth-Reported*
The YRBS is a biennial survey of Arizona high school students (grades 9–12), conducted with the CDC, assessing health behaviors like vaping, tobacco use, and mental health. Using a multistage cluster design, schools and classes were randomly selected to ensure a representative sample. Public schools with grades 9–12 were sampled based on enrollment size, with intact classes selected randomly. Participation included 1,181 in 2021.

The questionnaires selected for analysis can be found in Appendix 2: Questions Used for Data Analysis.

Data suppression and survey weights

The report adheres to ADHS data suppression guidelines: (1) data with fewer than six cases are suppressed, and (2) data are also suppressed if the reference group has fewer than 100 cases. To address these limitations, we expanded our sample to include states within the CDC-defined Mountain Division that participated in the 2021 YRBS (i.e., AZ, CO, ID, MT, NV, NM, and UT) or, if necessary, to a national level if suppression is necessary. This approach allowed us to minimize data suppression while preserving key demographic groups, such as Native American/Alaska Native populations, which often have lower survey participation and, therefore, require suppression.

All of the analyses accounted for the complex sampling methods (including survey weights, clusters, strata) required for both surveys to generate accurate population-representative estimates and were conducted using SAS version 9.4.

1

Access to Preventive and Mental Health Care



Access to Preventive and Mental Health Care

Access to healthcare, including mental health services, is of critical importance for adolescents, as this developmental stage significantly influences their lifelong physical, emotional, and social well-being. Early identification and treatment of chronic and mental health conditions, alongside comprehensive preventive care, can contribute to improved long-term health outcomes. Ensuring equal access to comprehensive medical and behavioral health services is essential for fostering optimal adolescent development, academic achievement, and a successful transition to adulthood.

Ensuring equal access to comprehensive medical and mental health services for adolescents is not only critical for their individual well-being but also vital for the future of Arizona. Healthy adolescents are more likely to become productive adults who contribute positively to the state's workforce, economy, and communities. By supporting adolescent development, academic success, and a smooth transition to adulthood through accessible healthcare, Arizona can foster a healthier, more educated, and resilient population. Addressing these needs today lays the foundation for a stronger and more prosperous future for the state.

This section will delve into a landscape of fragmented access to mental health care—one where insurance status, income level, race/ethnicity, and health status all play a role. These disparities can limit opportunities for early intervention and ongoing support, leaving many youth and their families to navigate complex systems without adequate guidance or resources. Understanding and addressing these barriers is essential to ensuring every adolescent in Arizona has access to the care they need to thrive.



Table A1. Access to preventive and mental health services and health insurance, AZ vs. nationwide (%)

Categories	2021-2022 NSCH		2021 YRBS
	AZ (%)	Nationwide (%)	AZ (%)
Access to Preventive and Mental Health Services			
Preventive healthcare visits during the past 12 months	64	70	53
Received treatment or counseling from a mental health professional during the past 12 months (among those who needed care)	81	82	N/A
Received or needed mental health care, but it was somewhat difficult to get it	31	29	N/A
Received or needed mental health care, but it was very difficult to get, or it was not possible to obtain care	25	23	N/A
Health Insurance Adequacy			
Adequacy of current insurance coverage	68	71	N/A
Health Insurance Type			
Public health insurance only	29	28	N/A
Private health insurance only	57	59	N/A
Public and private health insurance	5	5	N/A
Uninsured	9	8	N/A

Note. The categories "Received or needed mental health care, but it was very difficult to get it" and "It was not possible to obtain care" were combined to avoid data suppression due to a small sample size; the national YRBS data does not have data regarding access to preventive and mental health services, as well as health insurance; N/A = Not available.

Preventive health visits provide an important opportunity to promote adolescents' developmental, behavioral, and mental health, and to identify concerns, allowing for early intervention and support. According to the parent-reported 2021-2022 National Survey of Children's Health (NSCH), only 64% of Arizona adolescents attended preventive healthcare visits in the past 12 months, which was lower than the national average (70%). In the Arizona 2021 Youth Risk Behavior Survey (YRBS), only 53% of adolescents reported the same.

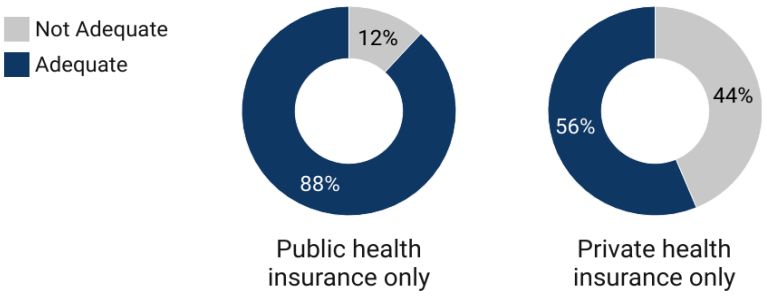
Although 8 in 10 Arizona adolescents who needed mental health care (i.e. treatment and counseling) reported that they received it within the past 12 months, almost 1 in 3 found it somewhat difficult to access care, and 1 in 4 described it as very difficult or impossible to obtain care, highlighting significant gaps in mental health care accessibility.

In the NSCH, insurance adequacy is defined as coverage that (1) usually or always meets the child's health care needs, (2) usually or always allows access to needed health care providers, and (3) either has no annual out-of-pocket costs or those out-of-pocket costs are usually or always reasonable. Sixty-eight percent (68%) of Arizona adolescents had adequate insurance to see their provider and overall health care needs. Notably, 1 in 10 adolescents in Arizona were uninsured.

> Among those who required mental health services, ... 1 in 4 described it as very difficult or impossible to obtain care.
>
> 1 in 10 Arizona adolescents were uninsured.

Covered But Not Protected?

Figure A1. Insurance adequacy by insurance type in Arizona



Note. Data for 'public and private health insurance' were suppressed due to the reference group having fewer than 100 cases.

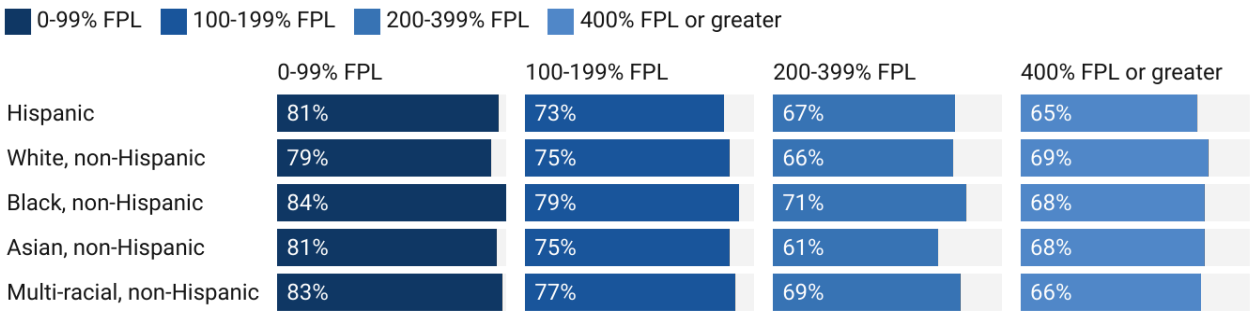
Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Adolescents with private insurance reported greater challenges with having adequate insurance to cover necessary care in general (Figure A1), with 44% percent of privately insured adolescents in Arizona lacking adequate insurance compared to just 12% of those on public insurance.

National data on insurance adequacy by household income and race/ethnicity (Figure A2) show that the proportion of adolescents whose insurance was adequate to cover healthcare expenses decreased with higher household income across all racial/ethnic groups. Regarding household income, the NSCH calculates federal poverty levels (FPL) based on household income, household size, and inflation. The greater the FPL, the more financially well-off the household is. In this graph, for example, 81% of Hispanic adolescents who are in the 0-99% FPL household had adequate health insurance, compared to 73% in the 100-199% FPL, 67% in the 200-399% FPL, and 65% in the 400% FPL or greater.

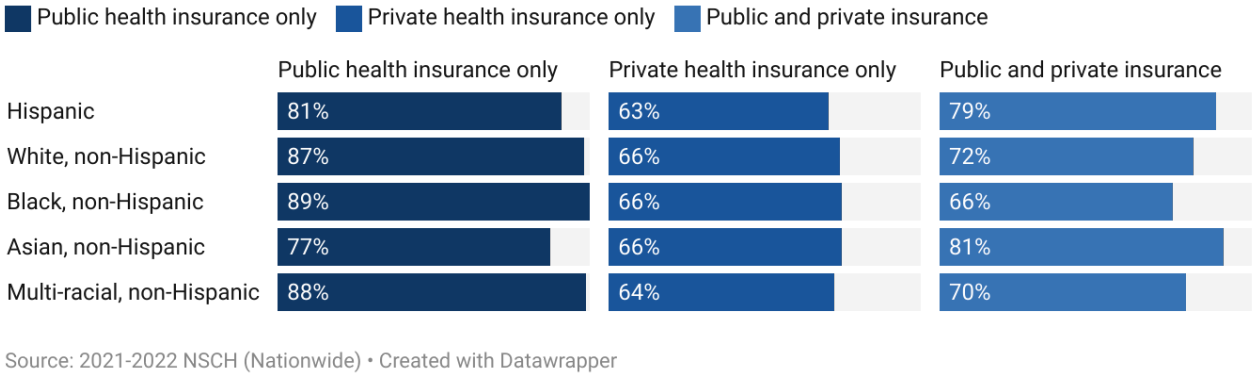
National data on insurance adequacy by insurance type and race/ethnicity showed that families covered by private health insurance reported inadequate insurance at greater rates than those with public health insurance or both public and private insurance. This finding was consistent across different race/ethnicity groups (Figure A3 on page 11). The results may highlight potential gaps in insurance coverage for those who do not qualify for public health insurance but cannot comfortably cover healthcare expenses. This requires further exploration of why those gaps exist in these higher-income groups.

Figure A2. Insurance adequacy by federal poverty level (FPL) and race/ethnicity



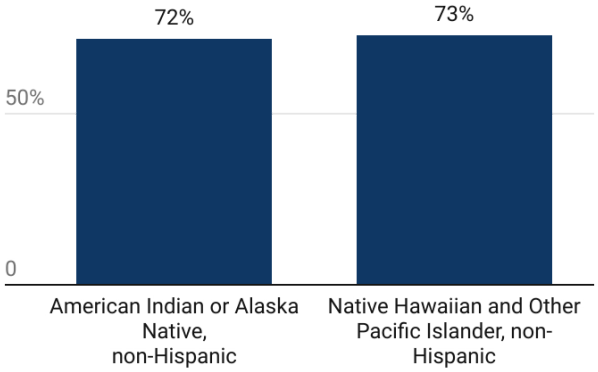
Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Figure A3. Insurance adequacy by insurance type and race/ethnicity



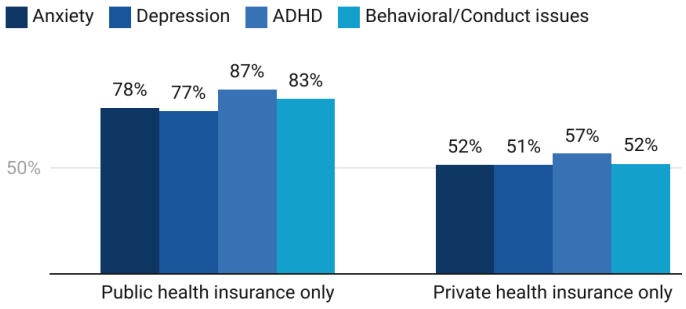
Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Future A4. Insurance adequacy for AI/AN and NHPI



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Figure A5. Insurance adequacy among those with a mental health diagnosis by insurance type



Note: Data for 'public and private health insurance' were suppressed due to the reference group having fewer than 100 cases.

Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Although national data on insurance adequacy among American Indian/Alaska Native and Native Hawaiian/Pacific Islander adolescents did not allow for disaggregation by household income, due to small sample sizes, 72% and 73% reported having adequate insurance, respectively (Figure A4).

Adolescents who had a mental health diagnosis (i.e., anxiety, depression, ADHD, or behavioral/conduct disorder) covered by public health insurance were more likely to report having adequate insurance coverage compared to adolescents with private health insurance. (77-87% vs 51-57%; Figure A5).

These findings highlight the potential economic barriers encountered by many families that may be "covered but not protected," especially those who fall into the gap between eligibility for public insurance and the ability to afford private care.

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Barriers to Healthcare Access

Among Arizona adolescents who were not able to receive needed care, the most common reasons reported were the inability to get an appointment (57%), cost concerns (43%), insurance eligibility issues (23%) and living in an area with insufficient providers (19%; Figure A6).

In Figure A7, national data on the common reasons for not being able to obtain care by insurance type reported problems getting an appointment as the most common reason for adolescents with public insurance, private insurance, or both (53-68%). Cost concerns were the most commonly reported reason for uninsured adolescents (61%).

Figure A6. Reasons for not being able to obtain care

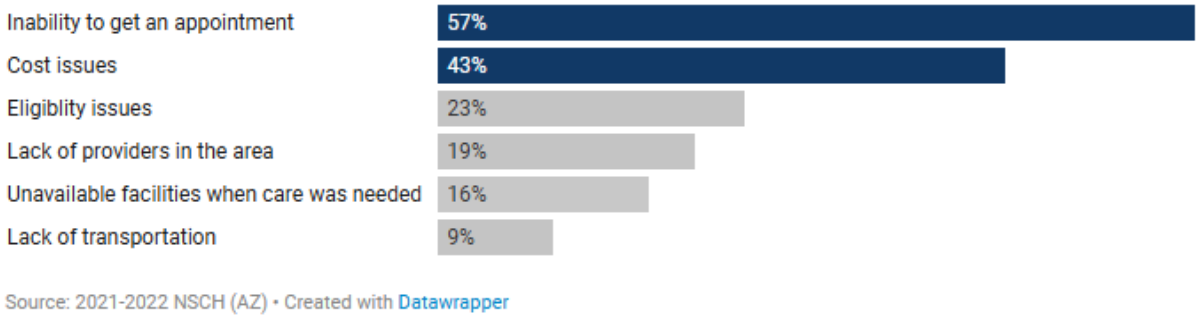


Figure A7. Reasons for not being able to obtain care by insurance type

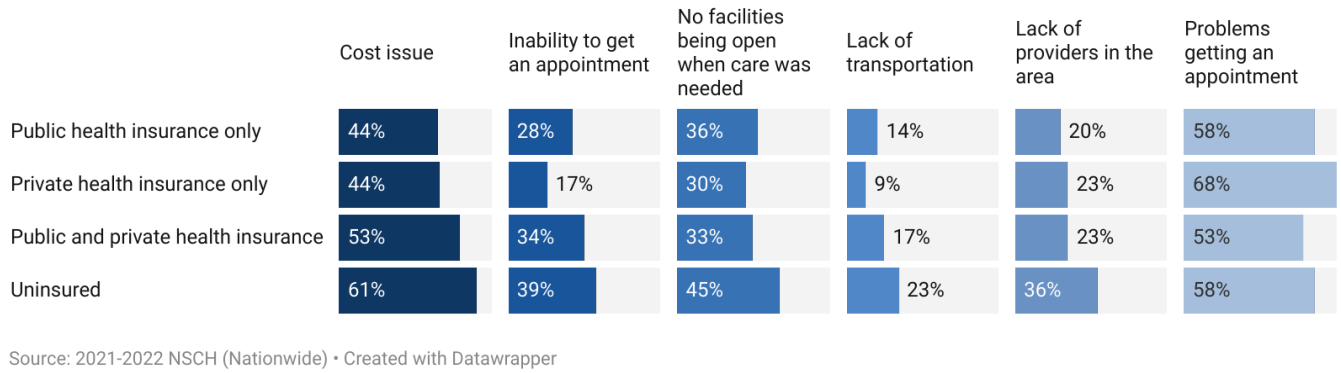
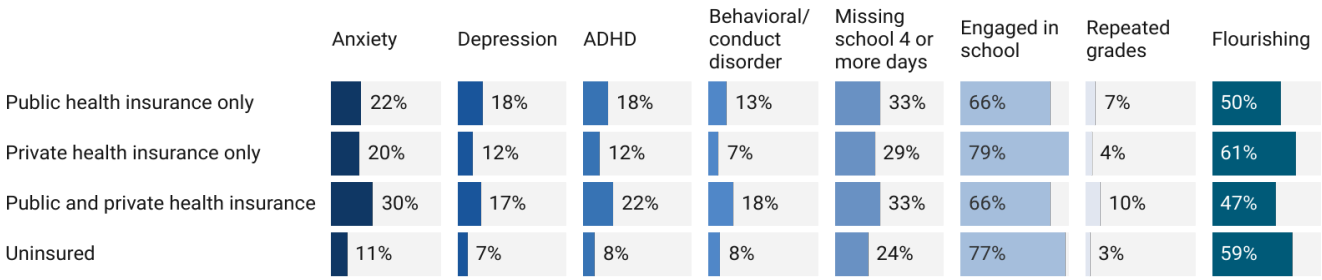




Figure A8. Mental health diagnoses, school absenteeism, engagement, and flourishing by insurance type

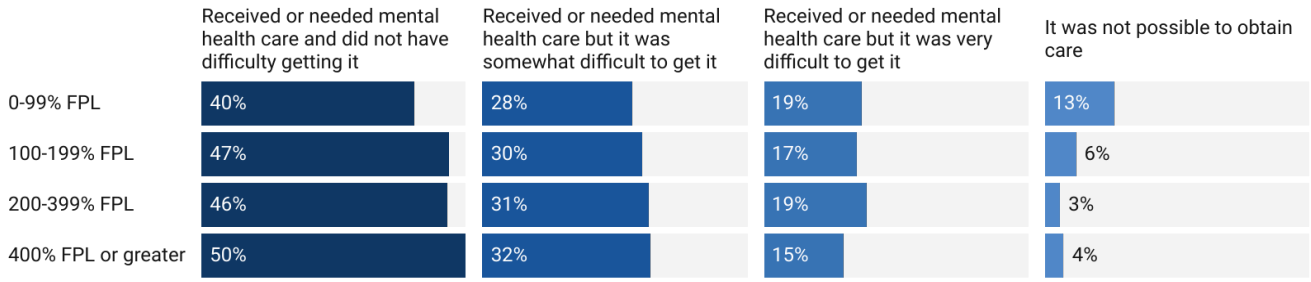


Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure A8 shows the percentages of adolescents with each insurance type or who were uninsured had a mental health diagnosis, and the percentages of those experienced problems with absenteeism due to illness, school engagement, repeated grades, and flourishing. Overall, those covered by private health insurance had fewer mental health diagnoses and better school engagement and flourishing. The prevalence of anxiety ranged from 11 to 22%, depression from 7 to 18%, ADHD from 8 to 18%, and behavioral/conduct disorder from 8 to 13% among adolescents across insurance types. Rates of missing four or more school days, school engagement, and flourishing range from 24 to 33%, from 66 to 79%, from 3 to 7%, and from 47 to 61%, respectively, across insurance types.

Uninsured adolescents generally showed lower rates of behavioral health diagnoses and may reflect limited access to healthcare and mental health services.

Figure A9. Difficulties receiving mental health care by federal poverty level (FPL)



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

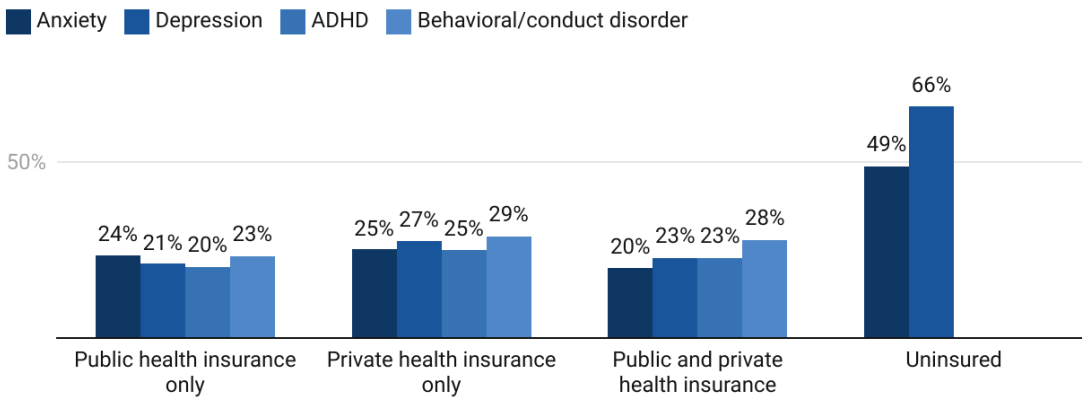
Data presented in Figure A9 reveal that adolescents across all household income categories face significant challenges when accessing mental health care. While 40-50% of adolescents who received or needed mental health services reported no difficulty in obtaining care, accessing care was somewhat difficult for almost 1 in 3 adolescents and very difficult for nearly one in five adolescents. Mental health care was impossible to obtain for 4-13% of adolescents and was greatest among adolescents living in households with income 0-99% FPL. These findings underscore that barriers to mental health care persist across all income levels, indicating systemic challenges in care accessibility.

Among adolescents with diagnosed mental health conditions, significant barriers to accessing care was most commonly reported for uninsured adolescents. Specifically, 49% of uninsured adolescents with anxiety and 66% of uninsured adolescents with depression reported significant barriers to obtaining mental health services. However, significant barriers were also reported by 20 to 28% of adolescents with either public, private insurance, or both, indicating that challenges in accessing mental health care persist regardless of insurance type (Figure A10).

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Figure A10. Percentage of adolescents facing significant barriers to accessing care (i.e., "very difficult to get it") by insurance type and healthcare diagnosis



Note. Data from the groups without health insurance who have ADHD or a behavioral/conduct disorder were suppressed due to the reference group having fewer than 100 cases.

Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Healthcare Access for Adolescents with Special Health Care Needs (SHCN)

Adolescents with Special Health Care Needs (SHCN) refers to youth who have a chronic physical, developmental, behavioral, or emotional condition requiring health and related services beyond what is generally needed by individuals of their age. This may include complex medical conditions, mental health conditions, neurodevelopmental disorders, or intellectual and developmental disabilities.

Adolescents with SHCN are best served in medical homes* providing continuous, comprehensive, family-centered, and coordinated, compassionate care. Arizona data indicate that only 65% of YSCHN had adequate insurance and 44% received care that met medical home criteria (Table A2 on page 15). The type of insurance among those with SHCN is presented in Figure A11 on page 15.

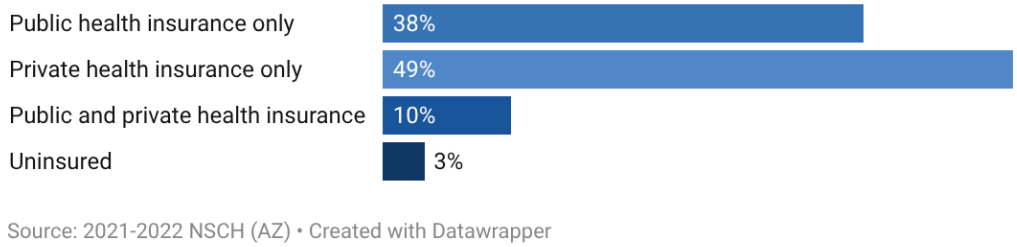
Additionally, adolescents with SHCN with private insurance had the highest rates of inadequate coverage among those with SHCN given 48% with adequate insurance (Figure A12 on page 15). When it comes to access to mental health care, 59% of adolescents with SHCN experienced difficulty or were unable to access needed mental health care (Figure A13 on page 15).

*A medical home is defined as care in which a child has a usual place for well and sick visits, a personal doctor or nurse, no trouble obtaining referrals, coordinated support when needed, and family-centered attention (meaning providers listen carefully, spend enough time, respect family values, and offer interpreter services when needed).

Table A2. Healthcare access among Arizona adolescents with SHCN (%)

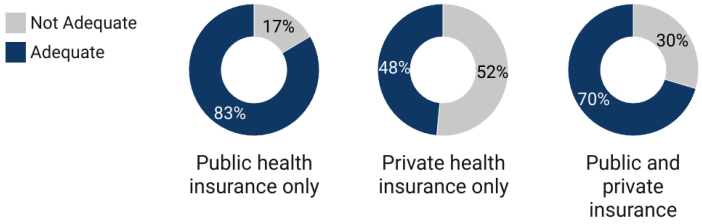
Categories	AZ (%)
Current insurance is adequate	65
Care meets medical home criteria	44
Have a personal doctor or nurse	76
Received mental health care during the past 12 months	84

Figure A11. Types of insurance among adolescents with SHCN



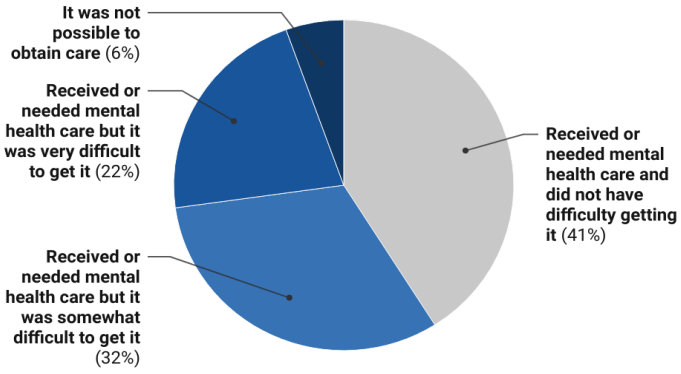
Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Figure A12. Insurance adequacy by insurance type among adolescents with SHCN



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure A13. Difficulties in obtaining mental health care among adolescents with SHCN



Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Discussion

The patterns observed in Arizona adolescent mental health care access reflect not only individual-level challenges but deeper systemic issues embedded in the structure of the healthcare environment. Data in this section reveals that only 64% of Arizona adolescents had a preventive care visit in the past year, lower than the national average of 70%. Among those needing mental health treatment or counseling, one in three said it was somewhat difficult to access care, and one in four said it was very difficult or impossible. Notably, one in 10 Arizona adolescents had no health insurance coverage at all. Considering there are approximately 480,000 adolescents, aged 15-19 (based on the 2022 Arizona Health Status and Vital Statistics report), this is about 48,000 adolescents.

Importantly, access problems are not limited to the uninsured. **Adolescents with private insurance reported some of the greatest challenges. 44% of privately insured adolescents in Arizona lacked adequate insurance to cover necessary care, compared to just 12% of those on public insurance.** This gap is even more pronounced for adolescents with diagnosed mental health conditions: only 51-57% of those with private insurance had sufficient coverage, while 77-87% of their publicly insured peers did. These findings point to a growing issue of being "covered but not protected," especially for families who do not qualify for public insurance yet still struggle to afford care. While the data illustrates widespread difficulty accessing services, especially for adolescents with private insurance or no insurance at all, these barriers are symptomatic of broader structural constraints, including workforce shortages, fragmented insurance coverage systems, and uneven distribution of services across geographic and demographic lines.

This trend aligns with prior research showing that commercial insurance plans frequently restrict access to behavioral health services through narrow provider networks, higher cost-sharing requirements, and utilization management protocols (Colorado Health Institute, 2021; Cummings et al., 2017). In Utah and New Mexico, similar challenges have been documented, particularly among families who earn too much to qualify for public assistance but still struggle to afford mental health care under private plans (Cutler & Edmonds, 2021).
Compared to its Four Corners neighbors, Arizona adolescents face steeper challenges in accessing mental health care. Fewer Arizona youth had a preventive healthcare visit in the past year (64%) than their peers in Colorado (72%), Utah (70%), or New Mexico (69%), based on NSCH data. Arizona adolescents were also slightly more likely to report that getting mental health care was "very difficult or impossible" (25%), compared to Colorado (22%), Utah (21%), and New Mexico (23%), highlighting systemic access challenges. Insurance adequacy for Arizona adolescents (68%) also lags behind Colorado (73%) and Utah (71%), though it is slightly higher than New Mexico (66%). These comparisons suggest that while barriers exist throughout the region, Arizona youth, particularly those with private insurance or without coverage, may face unique difficulties within the current healthcare landscape. These findings point to important regional differences and reinforce the need for localized solutions tailored to Arizona's access challenges.

These disparities are particularly concerning given Arizona's behavioral health workforce constraints. The Health Resources and Services Administration (HRSA) has designated all 15 Arizona counties as having one or more Mental Health Professional Shortage Areas (HPSAs), with the most severe shortages occurring in rural and frontier counties (HRSA, 2024). These shortages limit both the availability and timeliness of services for adolescents, especially in areas where school-based providers or community mental health clinics are scarce or overstretched.

Arizona's geographic and demographic diversity further complicates the healthcare access landscape. Adolescents living in rural communities, on tribal lands, or in low-income urban neighborhoods frequently encounter multiple overlapping barriers, including transportation challenges, limited telehealth infrastructure, and a lack of culturally responsive services. Research from rural New Mexico and southern Utah reflects these same issues, particularly among Hispanic and Native youth populations who experience both systemic underinvestment and historical mistrust of healthcare institutions (Breland-Noble et al., 2022; Sandstrom et al., 2020). Particularly, among AI/AN

adolescents, 28% reported having two or more Adverse Childhood Experiences (ACEs; which will be further discussed in Section 4: The Building Blocks of Childhood and How Early Experiences Shape a Lifetime), and 42% experienced food insecurity—factors that compound mental health risk and heighten the importance of access to care. However, barriers to care are not isolated issues—they are deeply intertwined with adolescent outcomes. Youth without access to care are more likely to experience mental health conditions or fall behind academically.

Importantly, this section reveals that **35% of adolescents with special health care needs (SHCN) lacked adequate health insurance to meet their medical needs, and more than half encountered difficulties accessing mental health services.** These gaps in coverage and care can significantly impact health outcomes and quality of life. Recent research further emphasizes the challenges faced by this population, finding that 1 in 10 U.S. children with SHCN experience disability-based discrimination in health care settings—a factor associated with over twice the odds of forgone care and increased use of emergency services (Ames et al., 2025). Together, these findings highlight the need for continued data collection and research to better understand and address unique barriers to comprehensive, accessible care for this population.

Cost and availability remain the most frequently cited roadblocks to accessing services. While insured adolescents were more likely to report trouble getting an appointment, uninsured youth were most likely to cite affordability as the primary barrier. In some cases, families reported skipping insurance enrollment altogether due to high premiums or out-of-pocket costs, or because coverage did not seem necessary at the time (CDC, 2024). Others faced eligibility barriers or were discouraged from enrolling due to immigration concerns (KFF, 2025).

Additionally, this report reinforces the important distinction between insurance coverage and *insurance adequacy*. Having coverage does not always translate into meaningful access to care. Among Arizona adolescents with a diagnosed mental health condition, those with private insurance were significantly less likely to have adequate coverage than their publicly insured peers. This finding challenges conventional assumptions about the superiority of private plans and echoes national concerns about the enforcement of mental health parity laws (Barry et al., 2023).

Taken together, these findings highlight that barriers to adolescent mental health care in Arizona are not random or incidental. Rather, they are embedded in systemic inequities related to insurance structure, provider distribution, and socioeconomic disadvantage. Addressing these barriers will require more than individual-level solutions; it will demand coordinated efforts to expand the behavioral health workforce, strengthen public insurance programs, enforce parity requirements, and ensure service access across all regions of the state, especially for those most at risk.

References

- Ames, S. G., Houtrow, A. J., Gatewood, A. K., Zigler, C., Ware, A., Berry, J. G., & Coller, R. J. (2025). Disability-based discrimination and forgone health care in children with special health care needs. *Pediatrics, 156*(1), e2024068782. https://doi.org/10.1542/peds.2024-068782
- Barry, C. L., Busch, S. H., & Huskamp, H. A. (2023). Parity and its discontents: Legal and policy challenges in achieving mental health care equity. *Health Affairs, 42*(2), 264–271. https://doi.org/10.1377/hlthaff.2022.01234
- Breland-Noble, A. M., Al-Mateen, C., Goodwill, J. R., & Sanchez, M. A. (2022). Structural racism, health disparities, and mental health access for rural and Indigenous youth. *Journal of Adolescent Health, 71*(4), 507–510. https://doi.org/10.1016/j.jadohealth.2022.06.008
- Centers for Disease Control and Prevention (CDC). (2024). Reasons for not receiving needed mental health care among children — United States, 2022. Preventing Chronic Disease, 21(E57).
- Colorado Health Institute. (2021). Mental health in Colorado: Promising practices and persistent gaps. https://www.coloradohealthinstitute.org
- Cummings, J. R., Allen, H. L., Clennon, J., Ji, X., & Druss, B. G. (2017). Geographic access to specialty mental health care across high- and low-income U.S. communities. *JAMA Psychiatry, 74*(5), 476–484. https://doi.org/10.1001/jamapsychiatry.2017.0303
- Cutler, E., & Edmonds, B. (2021). The mental health access crisis: Understanding affordability and availability in Utah and New Mexico. Mountain West Policy Institute.
- Health Resources and Services Administration (HRSA). (2024). Health professional shortage areas (HPSAs) - Mental health. U.S. Department of Health and Human Services. https://data.hrsa.gov/topics/health-workforce/shortage-areas
- KFF. (2025). Key facts on health coverage of immigrants. https://www.kff.org/racial-equity-and-health-policy/key-facts-on-health-coverage-of-immigrants/
- Sandstrom, H., Gennetian, L. A., & Gelatt, J. (2020). Inequities in youth mental health services across southwestern states. Urban Institute. https://www.urban.org

2

Creating Safe and Supportive Environments for Adolescents' Mental Well-Being



Creating Safe and Supportive Environments for Adolescents' Mental Well-Being

Adolescents thrive in environments where they feel physically safe, emotionally supported, and socially connected (Lamblin et al., 2017). The presence–or absence–of these protective factors can significantly influence a young person's mental health, development, and long-term outcomes. Safe and supportive environments are not limited to schools; they extend into homes, neighborhoods, and the broader community. These environments encompass everything from the presence of caring adults and peer relationships to the physical safety of schools and public spaces, all of which collectively shape adolescent well-being.

While considerable literature exists on adolescent mental health and school-based interventions, there is less emphasis on the mental health of parents and how it directly affects adolescents. Yet, the emotional and psychological well-being of parents, particularly mothers, is strongly linked to the mental health and school engagement of their children (Berg et al., 2017). Children of parents with poor mental health are more likely to experience their own psychological challenges, miss more school days, and show less engagement in academic and social settings. Recognizing this, emotional support for parenting becomes a critical and often under-addressed area in the broader conversation about adolescent mental health.

Moreover, the structure and resources of the household including income level, family structure, and access to community support, play a substantial role in shaping both parental and adolescent well-being. Families with higher income levels report better mental health, greater emotional support, and stronger resilience. In contrast, families with lower incomes not only struggle more with mental health but also report less access to emotional or parenting support, compounding the risks faced by adolescents.

Environmental factors such as school safety, bullying, and neighborhood cohesion also deeply affect adolescents' mental states. Unsafe schools, cyberbullying, or exposure to violence can lead to chronic absenteeism, decreased engagement, and worsening mental health symptoms such as anxiety and depression. Conversely, access to supportive adults, recreational spaces, libraries, and safe neighborhoods are shown to correlate with lower levels of mental illness and higher levels of flourishing and engagement among youth.

In examining these dynamics, this report incorporates both parent-reported data and youth-reported data. Each source provides a unique lens: parent-reported data offers insight into family dynamics, parent mental health, and environmental perceptions, while youth-reported data reflects lived experiences related to safety, support, and emotional well-being. Together, these data sets paint a comprehensive picture of the ecosystem surrounding adolescents.

Therefore, this section explores key factors that influence adolescent mental health within the context of safe and supportive environments, including:

- ★ The role of parental mental health and emotional support for parents,
- ★ Family resilience and socioeconomic status,
- ★ School and neighborhood safety,
- ★ Peer and adult connectedness, and
- ★ The impact of bullying and chronic stressors in community and educational settings.

References

- Lamblin, M., Murawski, C., Whittle, S., & Fornito, A. (2017). Social connectedness, mental health and the adolescent brain. *Neuroscience & Biobehavioral Reviews*, *80*, 57-68.
- Berg, N., Kiviruusu, O., Karvonen, S., Rahkonen, O., & Huurre, T. (2017). Pathways from problems in adolescent family relationships to midlife mental health via early adulthood disadvantages–a 26-year longitudinal study. *PloS one*, *12*(5), e0178136.

Table B1. Indicators of safe and supportive relationships and environments, AZ vs. nationwide (%)

Categories	2021-2022 NSCH	
	AZ (%)	Nationwide (%)
Parents/Guardians' Mental Health and Support for Parenting		
Mothers' mental health		
Excellent or very good	66	69
Good	25	24
Poor	8	8
Fathers' mental health		
Excellent or very good	71	74
Good	23	21
Poor	6	5
Emotional support for parenting	67	72
Parents' ability to cope with the day-to-day demands of parenting		
Very well	51	56
Somewhat well	47	42
Not very well or not very well at all	1	2
Parent usually/always feels aggravation from parenting	5	7
Family Resilience		
Family demonstrates resilience (endorsing all four items below)*	83	81
Family does not demonstrate resilience (endorsing 0-3 of the items below)*	17	19
Talk together about what to do when the family faces problems	90	87
Work together to solve the problem when the family faces problems	90	88
Know we have strengths to draw on when the family faces problems	92	89
Stay hopeful even in difficult times when the family faces problems	94	93
Neighborhood/School Environment		
Supportive neighborhoods	46	56
Safe neighborhoods		
Definitely agree	58	67
Somewhat agree	38	29
Somewhat/definitely disagree	5	5
Safe school		
Definitely agree	67	65
Somewhat agree	30	38
Somewhat/definitely disagree	4	4
Neighborhood amenities		
Sidewalks	86	76

Categories	2021-2022 NSCH	
	AZ (%)	Nationwide (%)
Park	81	75
Recreation center, community center, or boys' and girls' club	47	47
Library or Bookmobile	60	65
Detracting elements		
Litter or garbage on the street or sidewalk	22	19
Poorly kept or rundown housing	9	11
Vandalism, such as broken windows or graffiti	8	6
Interpersonal Relationships		
Adult mentor/supportive adult	83	86

Note. *Indicating 'all of the time' or 'most of the time' to family resilience items was considered an endorsement.

Table B2. Indicators of supportive relationships, AZ vs. nationwide (%)

Categories	2021 YRBS	
	AZ (%)	Nationwide (%)
School Environment		
Missed school days because of safety concerns	12	N/A
Threatened or injured on school property	8	7
Interpersonal Relationships		
Adult mentor/supportive adult	39	N/A
Supportive friends	44	N/A
Feeling connected to people at school	47	N/A

Note. N/A = Not available.

The 2021-2022 parent-reported NSCH data reveals key differences between Arizona and nationwide figures. In Arizona, 71% of fathers reported excellent mental health compared to 74% nationwide, while 66% of mothers reported excellent mental health vs. 69% nationally. Arizona families demonstrated resilience at 83%, higher than the national 81%.

Arizona also had lower support from neighborhoods (46% vs 56%) and less agreement on neighborhood safety (58% vs 67%). Arizona had better access to sidewalks (86% vs 76%) and parks (81% vs 75%), but fewer families had access to recreation centers (47% vs 47%) or libraries (60% vs 65%). Arizona experienced neighborhood issues, with 22% reporting litter (vs 19% nationwide), and 9% reporting poorly kept housing (vs 11% nationally). The availability of adult mentors is similar, with 83% in Arizona and 86% nationwide.

According to the youth-reported 2021 YRBS data, 12% of Arizona adolescents missed school due to safety concerns, while 8% reported being threatened or injured on school property. Regarding interpersonal relationships, 39% of Arizona adolescents had an adult mentor or supportive adult that they could share feelings with, while 44% report having supportive friends and 47% feel connected to people at school. Notably, the rate of Arizona adolescents reporting having an adult mentor in the YRBS was lower than the rate of an adult mentor in the NSCH, highlighting possible discrepancies due to reporting bias (39% in the YRBS vs 83% in the NSCH).

Thriving Parents, Thriving Families

The NSCH data reveals a clear relationship between household income and parental mental health. This association is particularly evident when examining mental health ratings of 'excellent' or 'very good' concerning the Federal Poverty Level (FPL) or household income. (In this section, the term 'mothers' refers to both mothers and female guardians, and 'fathers' refers to both fathers and male guardians for simplicity.)

Fathers reported significant increases in positive mental health assessments as household income rose from 0-99% to 400% or more of the FPL (Figure B1). Mothers also experienced improved mental health with higher income levels, although this effect was less pronounced compared to fathers (Figure B2). Overall, these findings highlight the critical role of financial resources in supporting parental mental health. The stronger association observed among fathers suggests they may be particularly vulnerable to the mental health challenges linked to financial insecurity.

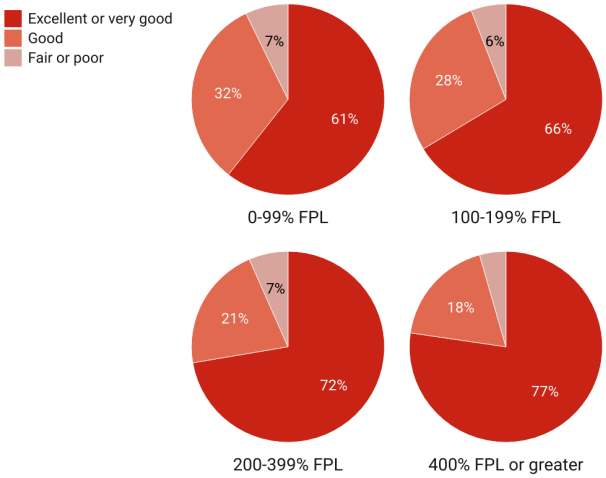
> Overall, the findings emphasize the importance of financial resources in supporting the mental health of parents.

Figure B1. Mental health of mothers or female guardians



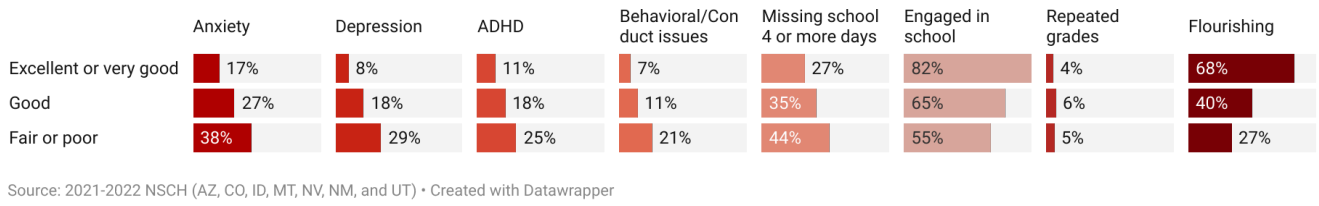
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure B2. Mental health of fathers or male guardians



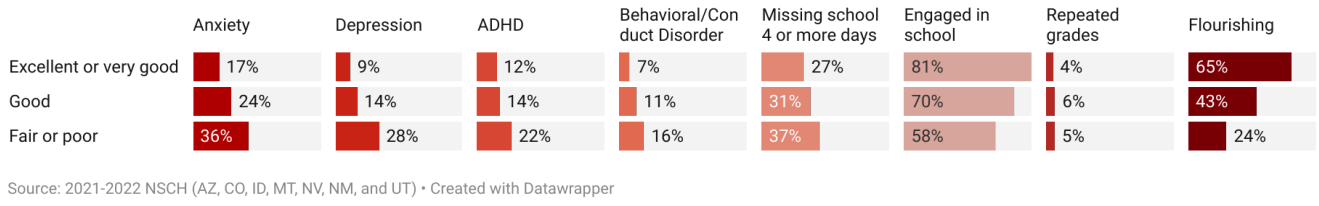
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure B3. Association between mothers' and their adolescent children's mental health and school engagement



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure B4. Association between fathers' and their adolescent children's mental health and school engagement



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Mothers whose children (in adolescence) have a mental health diagnosis (for example anxiety, depression, conduct disorder, ADHD, etc.) are statistically more likely than other mothers to rate their own mental health worse (e.g. fair or poor instead of good, very good or excellent). (Figure B3). Mothers of children with anxiety or behavioral conduct disorder were more than twice as likely to report poor mental health compared to excellent or good mental health and more than three times as likely to do so when their child was diagnosed with depression or ADHD.

Furthermore, when their adolescent child was flourishing, mothers were 2.5 times as likely to report excellent or good mental health and 40% more likely to do so when their child was engaged in school. Adolescents were 44% more likely to miss four or more days of school when their mothers reported fair or poor mental health. These findings indicate that a child's mental health is closely linked to their mother's mental well-being. Mothers were more likely to report poor mental health when their children had mental health issues, while they tended to report better mental health when their children were flourishing and engaged in school. However, it is important to note that these findings are based on cross-sectional data, which captures information at a single point in time. This type of data cannot establish cause-and-effect relationships.

Like mothers, fathers of adolescents diagnosed with mental health issues were more likely to report poor mental health themselves (Figure B4). Fathers of children with anxiety or behavioral conduct disorder were over twice as likely to report fair or poor mental health compared to excellent or good mental health and more than three times as likely to do so when their child was diagnosed with depression.

Additionally, when their children were flourishing, fathers were 1.7 times more likely to report excellent or good mental health and 40% more likely to have excellent or good mental health when their child was engaged in school. Additionally, adolescents were 37% more likely to miss 4 or more school days when their fathers reported fair or poor mental health.

These findings indicate that a child's mental health is closely linked to both the mother's and father's mental well-being. Parents were more likely to report poor mental health when their children had mental health issues, while they tended to report better mental health when their children were flourishing and engaged in school, highlighting the reciprocal relationship between child and parent well-being.

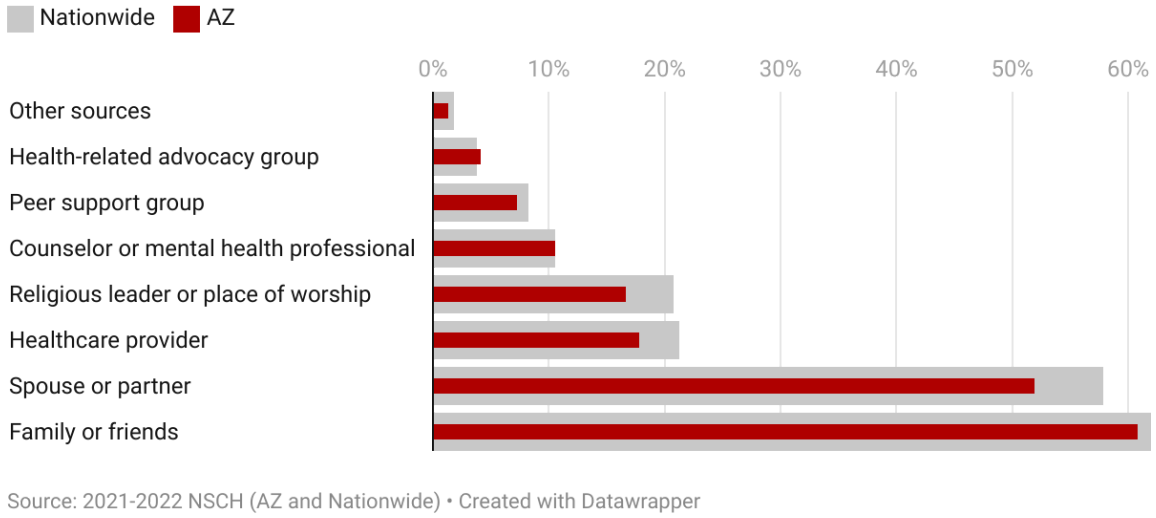
A child's mental health is closely linked to both the mother's and father's mental well-being.

"Who Mothers the Mother?"

To improve parents' mental health, securing emotional support for parenting is instrumental. Emotional support for parenting can come from a variety of sources, with the two most commonly reported, both in Arizona and nationally, being from family or friends and spouses or partners. Figure B5 shows the percentage of emotional support by source in Arizona (in grey) compared to the nationwide measures (in red). Arizona reports less support from each source than the national average in each source type except health-related advocacy or support groups. This presents an opportunity to strengthen other means of emotional support, such as interpersonal relationships in healthcare settings and other peer or advocacy groups.

The percentage of having emotional support for parenting rose with increasing FPLs (Figure B6). While only 60% of those in the 0-99% FPL reported having emotional support, 85% of those in the 400% or greater FPL had this support. Importantly, lower-income families may be particularly vulnerable, as parents in these households reported not only worse mental health but also less support for parenting.

Figure B5. Sources of emotional support, AZ vs nationwide



Source: 2021-2022 NSCH (AZ and Nationwide) • Created with Datawrapper

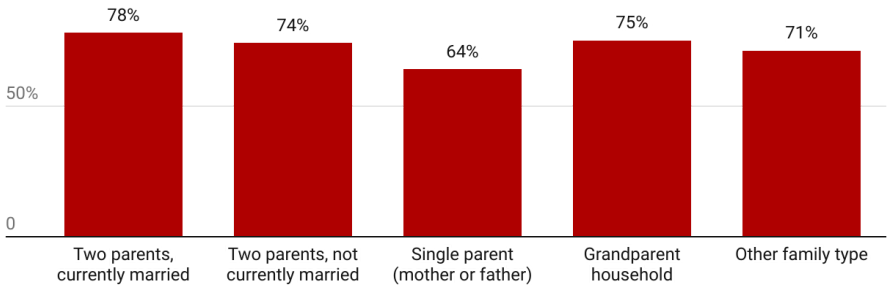
Figure B6. Emotional support for parenting by FPL



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper



Figure B7. Emotional support for parenting by family structure

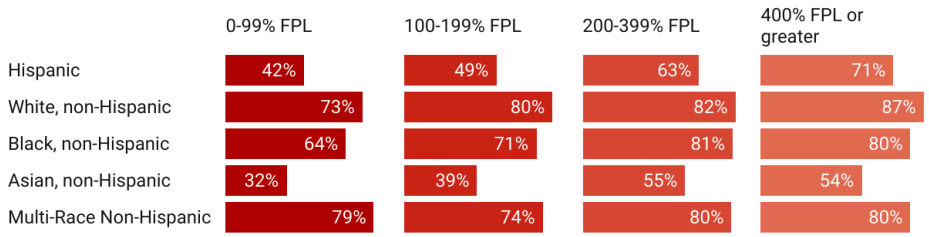


Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Family structure also has a notable relationship with the presence of emotional support for parenting (Figure B7). Higher numbers of parents who lived in households with two parents (married or unmarried), as well as households in which grandparents live with their children and grandchildren, reported that they had more emotional support than other family structures. Parents who lived with their spouses were more likely to report having emotional support than single parents.

Across all race and ethnicity groups, reports of emotional support for parenting increased with household income, with an average increase of 28.7% (Figure B8). However, when you disaggregate the data by race and ethnicity groups, discrepancies in the impact of income on emotional support become apparent. Hispanic and non-Hispanic Asian populations were most impacted, with both groups 51% more likely to report having emotional support for parenting when having a household income of 400% + of the FPL compared to a household income of 0-99% of the FPL. Black non-Hispanic populations were 22% more likely to report the same. White non-Hispanics' emotional support was the least impacted by household income, as they are only 17.5% more likely to report having emotional support for parenting when their household income was 400%+ of the FPL compared to when household income was 0-99% of the FPL.

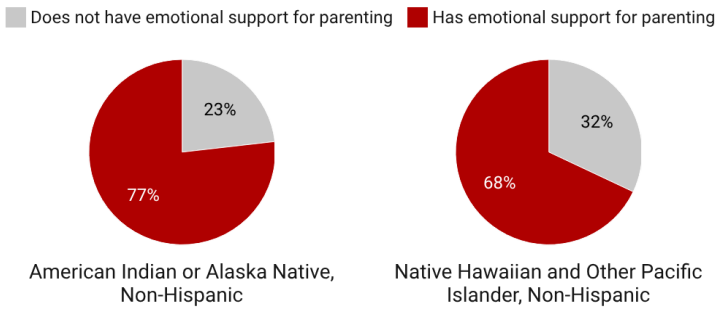
Figure B8. Emotional support for parenting by race/ethnicity and FPL



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

To assess emotional support for parenting among American Indian Alaskan Native (AI/AN) and Native Hawaiian Pacific Islanders (NHPI) populations, nationwide data was used to avoid data suppression. Nearly 8 in 10 AI/AN parents reported having emotional support for parenting, while 7 in 10 NHPI parents reported the same (Figure B9).

Figure B9. Emotional support for parenting for AI/AN and NHPI



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Parenting on the Edge

Parents' ability to cope with the day-to-day demands of parenting is crucial. When examining the relationship between emotional support and parental coping, a significant positive correlation emerges. For example, 76% of adolescents whose parents reported coping very well had emotional support, compared to 41% of adolescents whose parents did not cope well or at all with parenting demands (Figure B10).

The NSCH included three questions designed to measure parental aggravation. These questions assessed whether parents perceived their child as significantly more difficult to care for than most children, whether their child's behavior bothered them, and whether parents had felt angry with their child in the past month. In Figure B11, 75% of parents who seldom experienced aggravation in parenting reported having emotional support. In contrast, only 62% of parents who usually or always experienced aggravation reported having this support.

Adolescents with mental health conditions also had higher levels of parental aggravation (Figure B12). For example, 48% of parents of adolescents with anxiety, 37% of those with depression, 44% of those with ADHD, and 44% of those with behavioral disorders felt aggravation, compared to lower rates among parents of children without these conditions. A similar, though weaker, trend was found for parents of children with frequent school absences or grade repetition. 48% of adolescents with four or more absences had parents who felt aggravated, compared to 29% for those with fewer absences. Among adolescents who repeated grades, 13% of their parents felt aggravation, compared to 5% for those whose children did not. On the other hand, adolescents who were engaged in school or flourishing had lower parental aggravation levels. 7% of adolescents who engaged in school had parents who were aggravated, compared to 38% for those with children not engaged in school. 10% of adolescents who were flourishing had parents who felt aggravation, compared to 60% for those whose children were not flourishing, showing the connection between child well-being and lower levels of parental aggravation.

Adolescents with mental health conditions also had higher levels of parental aggravation.

Figure B10. Relationship between emotional support and parental coping

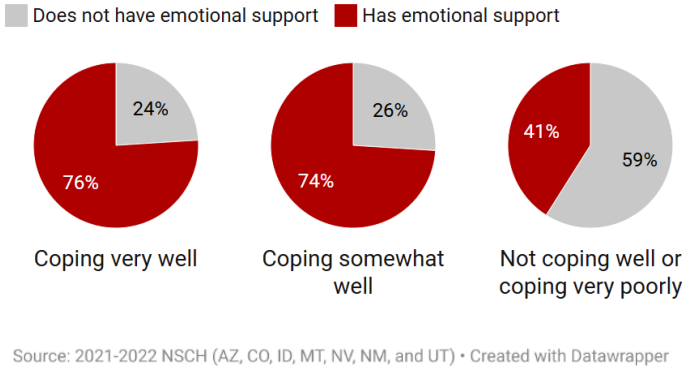


Figure B11. Relationship between emotional support and parental aggravation

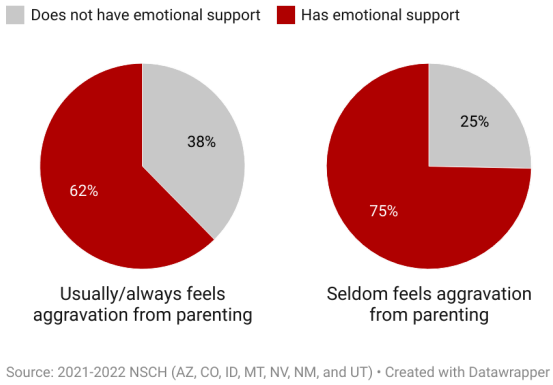
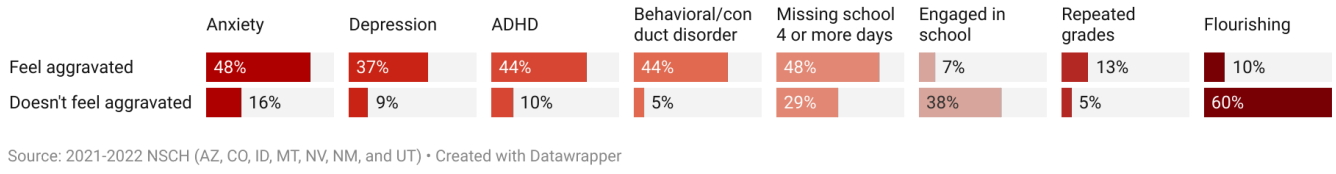


Figure B12. Association between parental aggravation and adolescent mental health and school engagement



Unbreakable Together—Why Family Resilience Matters

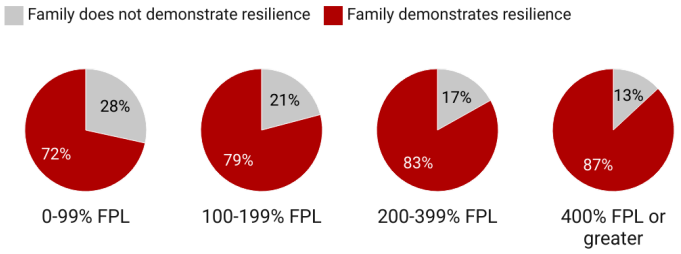
Family resilience, which refers to a family's ability to overcome challenges together, plays a critical role in safeguarding adolescent mental health. It helps families cope with stress, adapt to adversity, and maintain a supportive environment for young people, which can significantly reduce the risk of mental health issues. In the NSCH, family resilience is assessed using four individual items that gauge how well a family exhibits this resilience (please see details in Table B1).

Arizona data reveal a clear trend linking family resilience to household income levels. Adolescents in families with incomes at or above 400% of the FPL reported notably higher rates of resilience compared to adolescents in households earning between 0-99% FPL (87% vs 72%; Figure B13). This suggests that economic stability may play a crucial role in creating an environment where families are better able to navigate and overcome challenges.

The link between family resilience and adolescent mental health is shown in Figure B14. For example, 26% of adolescents without family resilience experienced anxiety, compared to 19% of those with family resilience. A similar association was found with depression, ADHD, and behavioral/conduct disorders. When examining the link with school engagement, adolescents with family resilience had higher percentages of school engagement (78% vs 61%). Similarly, 63% of those with family resilience met the criteria for flourishing, compared to 30% of those without family resilience. These findings highlight the importance of family resilience in supporting adolescent well-being across multiple domains.

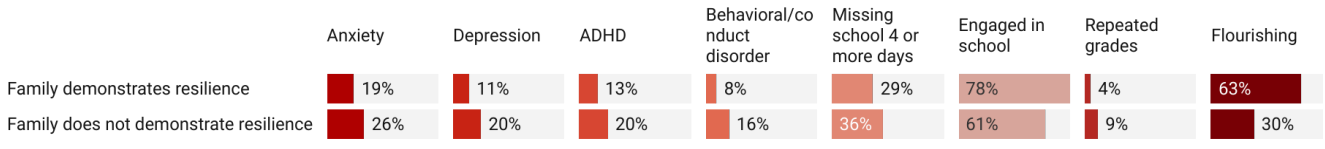
> Higher household income and financial security were associated with higher rates of family resilience among adolescents.

Figure B13. Family resilience by federal poverty level (FPL)



Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Figure B14. Association between family resilience and adolescent mental health and school engagement



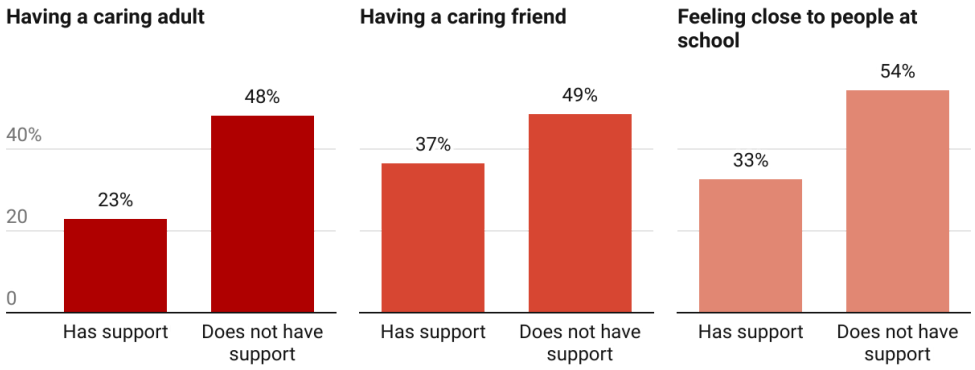
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper



The Hidden Power of Close Connections on Adolescent Well-Being

Adolescents were less likely to experience poor mental health when they had strong social connections and support. As shown in Figure B15, those who reported having a caring adult (23% vs 48%) or a caring friend in their life (37% vs 49%), as well as feeling close to people at school (33% vs 54%), were less likely to report poor mental health.

Figure B15. Percentages of adolescents reporting poor mental health by social connectedness and support

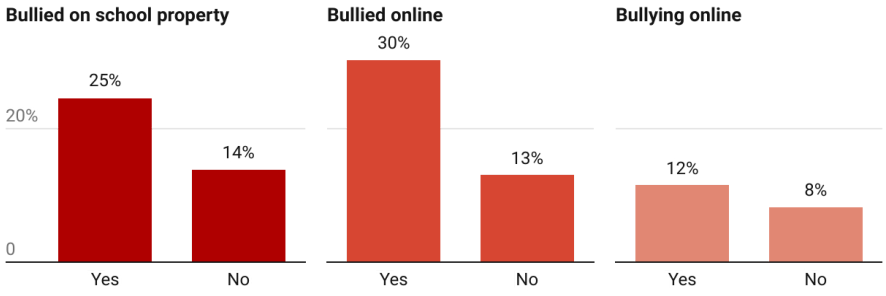


Source: 2021 YRBS (AZ) • Created with Datawrapper

Building Stronger, Safer Schools by Addressing Bullying

Adolescents who experienced bullying or engaged in bullying behavior are at a higher risk of poor mental health. Specifically, adolescents who were bullied on school property report poor mental health at a rate of 25%, compared to 14% of those who were not bullied. Those who were bullied online report poor mental health at 30%, compared to 13% of those who are not bullied online (Figure B16). Additionally, adolescents who engaged in bullying behavior online reported poor mental health at 12%, compared to 8% of those who do not engage in online bullying (Figure B16). Whether they were victims or perpetrators, the bullying environment had a negative impact on adolescents' mental well-being.

Figure B16. Percentages of adolescents with poor mental health by bullying

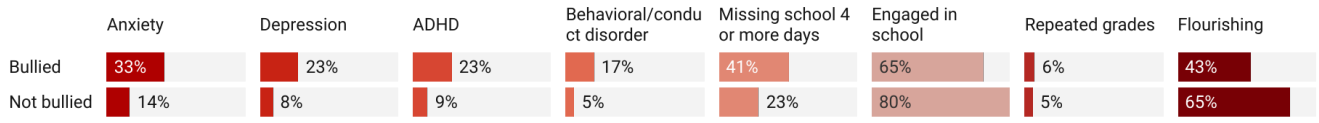


Source: 2021 YRBS (AZ) • Created with Datawrapper

Adolescents who experience bullying were also more likely to be diagnosed with mental health conditions. Specifically, adolescents with anxiety were bullied at a rate of 33%, compared to 14% of those without anxiety. Adolescents with depression were bullied at 23%, compared to 8% of those without depression. Adolescents with ADHD were bullied at 23%, compared to 9% of those without ADHD. Adolescents with behavioral/conduct disorders were bullied at 17%, compared to 5% of those without these disorders (Figure B17 on page 29). This relationship can be bidirectional: while bullying could contribute to poor mental health, adolescents with existing mental health

conditions were also more vulnerable to being bullied, further exacerbating the negative impact on their well-being. Additionally, bullying negatively impacted school engagement and overall flourishing. Adolescents who were bullied were absent at a rate of 41%, compared to 23% of those who were not bullied. They were also less likely to be engaged in school, with 65% reporting engagement compared to 80% of those who were not bullied. Adolescents who were bullied were less likely to be flourishing, with 43% reporting flourishing compared to 65% of those who were not bullied (Figure B17).

Figure B17. Association between bullying victimization and adolescent mental health and school engagement

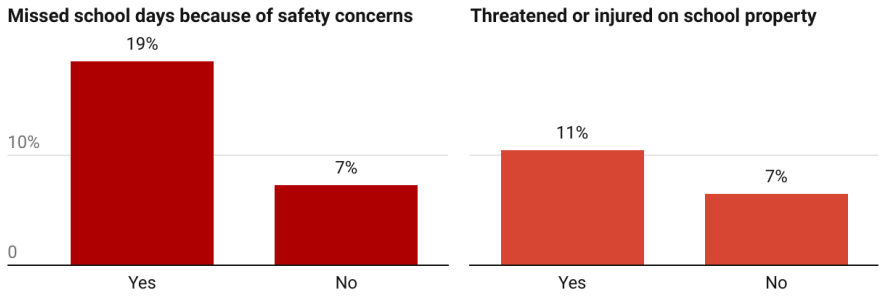


Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

School safety is another critical factor in adolescent mental wellness. Adolescents who missed school due to safety concerns reported poor mental health at 19%, compared to 7% of those who did not miss school for safety reasons. Adolescents who had been threatened or injured on school property reported poor mental health at 11%, compared to 7% of those who had not been threatened or injured (Figure B18). Adolescents who did not perceive their school as safe reported mental health challenges at higher rates. Specifically, adolescents with anxiety felt unsafe at school at a rate of 40%, compared to 18% of those without anxiety. Adolescents with depression felt unsafe at school at 31%, compared to 11% of those without depression. Adolescents with ADHD felt unsafe at school at 23%, compared to 13% of those without ADHD. Adolescents with behavioral/conduct disorders felt unsafe at school at 21%, compared to 8% of those without these disorders (Figure B19). Additionally, adolescents who felt unsafe at school were absent four or more days at a rate of 50%, compared to 28% of those who felt safe at school. Adolescents who felt safe at school were more engaged in school, with 80% reporting engagement, compared to 52% of those who felt unsafe. They were also more likely to be flourishing, with 63% reporting flourishing, compared to 34% of those who felt unsafe.

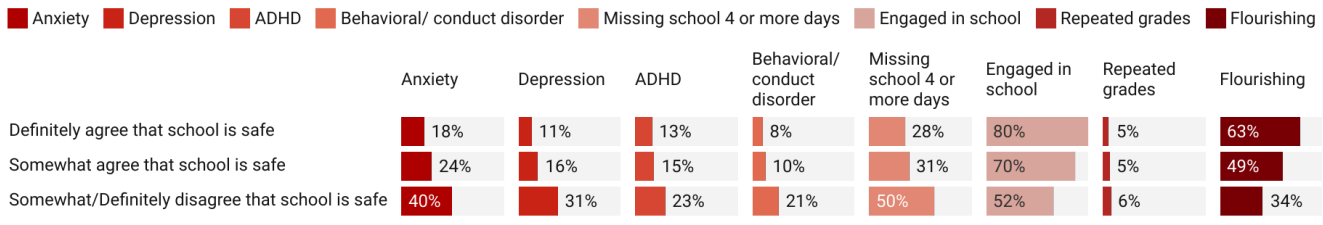
> Adolescents who felt unsafe at school were chronically absent at a rate of 50%, compared to 28% of those who felt safe at school.

Figure B18. Percentages of adolescents with poor mental health by school safety



Source: 2021 YRBS (AZ) • Created with Datawrapper

Figure B19. Association between school safety and adolescent mental health and school engagement



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Why Safe and Supportive Neighborhoods Matter

Adolescents who lived in supportive neighborhoods (e.g., people in this neighborhood help each other out and watch out for each other's children) experienced lower rates of mental health problems. Specifically, adolescents in supportive neighborhoods had an anxiety rate of 18%, compared to 24% in less supportive neighborhoods. They also had a depression rate of 10%, compared to 17%, an ADHD rate of 13%, compared to 15%, and a behavioral/conduct disorder rate of 8%, compared to 11% (Figure B20).

Neighborhood safety was also associated with adolescent mental health, though to a lesser degree. Adolescents who lived in unsafe neighborhoods have a depression rate of 16%, compared to 12% for those in safer neighborhoods. They also had a behavioral/conduct disorder rate of 11%, compared to 8% for those in safer neighborhoods (Figure B21).

Neighborhood support and safety were also linked to school engagement and flourishing. Adolescents who lived in safe neighborhoods were engaged in school at a rate of 39%, compared to 35% of those in unsafe neighborhoods. They were also less likely to repeat grades, with 4% of those in safe neighborhoods repeating grades, compared to 13% of those in unsafe neighborhoods. Furthermore, adolescents in safe neighborhoods were less likely to be chronically absent, with 29% being chronically absent compared to 43% in unsafe neighborhoods. Additionally, adolescents in safe neighborhoods had a flourishing rate of 60% compared to those in unsafe neighborhoods (46%).

When adolescents lived in supportive neighborhoods, they were more likely to flourish at a rate of 64%, compared to 49% for those in less supportive neighborhoods. They were also less likely to repeat grades, with only 3% of those in supportive neighborhoods repeating grades, compared to 7% of those in less supportive neighborhoods. Moreover, adolescents in supportive neighborhoods were more likely to be engaged in school at a rate of 79% compared to 70% for those in less supportive neighborhoods.

Figure B20. Association between supportive neighborhoods and adolescent mental health and school engagement

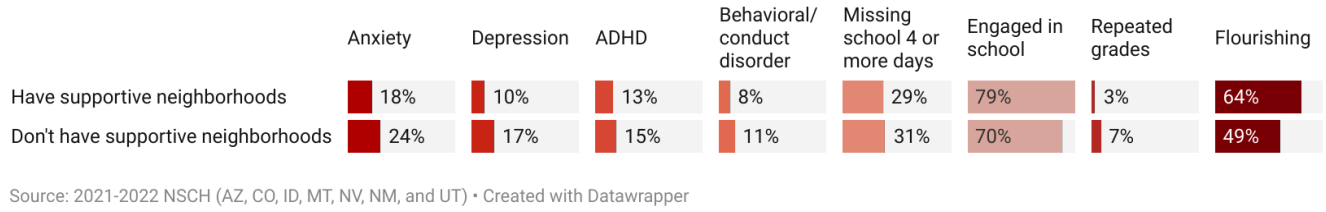
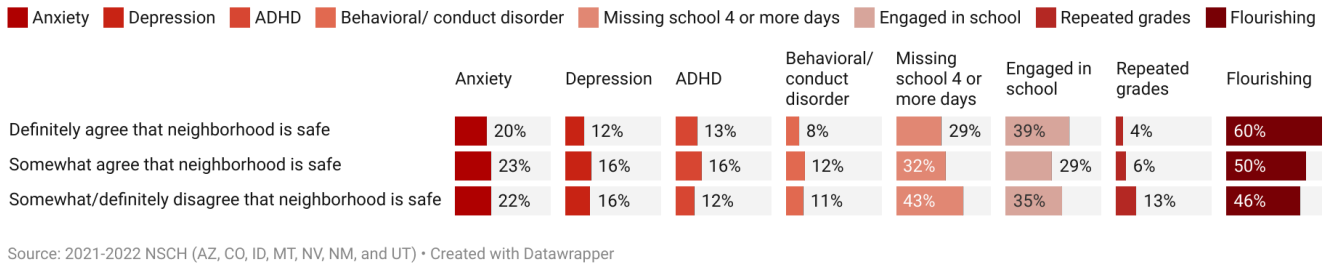


Figure B21. Association between safe neighborhoods and adolescent mental health and school engagement



The cumulative impact of safe and supportive relationships and environments, as well as their absence, on adolescent mental health is further discussed in Section 4: The Building Blocks of Childhood and How Early Experiences Shape a Lifetime.

Discussion

When examining the complexities of creating safe and supportive environments for adolescents' mental health and well-being, several key findings emerged at the local, regional, and national levels. Data comparisons between the U.S. and Arizona revealed nuanced disparities. For instance, Arizona reported a slightly lower level of parental emotional support and coping ability compared to national averages. While Arizona scored marginally higher in family resilience, adolescents were less likely to report feeling safe in their neighborhoods or having access to adult mentors or supportive adults than their peers nationally.

These discrepancies may, in part, be influenced by differences in reporting methods. The NSCH data were collected from parents or caregivers, while the YRBS relied on adolescent self-reporting. Divergent perspectives between caregivers and youth likely shaped the reported outcomes, especially in areas like perceived support or safety.

According to the 2021-2022 NSCH, the well-being of parents–both mothers and fathers–was strongly correlated with their adolescents' mental health. Parents of adolescents with poor mental health were significantly more likely to report poor mental health themselves, with the association exacerbated by lower household income levels. In contrast, parents whose children were reported as flourishing often described their own mental health more positively. Additionally, parental aggravation was more common among caregivers of adolescents with mental health conditions. Notably, despite Arizona parents reporting lower emotional support and mental health outcomes overall, their levels of parental aggravation were lower than national figures–an intriguing finding that warrants further exploration.

Parental coping and access to emotional support were also influenced by socioeconomic and racial factors. Parents who had emotional support–often from family or partners–were better able to manage stress. However, those experiencing financial insecurity were more likely to lack such support. Interestingly, emotional support among non-Hispanic white parents was less affected by income disparities, pointing to underlying differences associated with race that shape access to informal support systems (Taylor et al., 2013). These findings highlight the importance of family-level interventions and socioeconomic support in bolstering adolescent mental health.

Social connections and positive interpersonal relationships also played a crucial role in adolescent well-being. Higher family resilience, often associated with greater household income, emerged as a protective factor against poor mental health. Adolescents with access to adult mentors or supportive social ties were more likely to report positive mental health outcomes and a greater sense of flourishing (Birrell et al., 2025). Conversely, bullying was a significant risk factor. Adolescents who experienced bullying were more likely to exhibit signs of poor mental health, disengage from school, and struggle with flourishing. In fact, those with existing mental health conditions were disproportionately targeted by bullying, suggesting a feedback loop that further erodes their well-being (Ye et al., 2023). This reinforces the need for targeted anti-bullying policies and trauma-informed school practices as public health priorities.

The physical environment, including school and neighborhood safety, was another key determinant of adolescent mental health. Students facing mental or behavioral health challenges were more likely to report feeling unsafe in these environments. Conversely, those living in safe and supportive neighborhoods tended to be more engaged in school and demonstrated better mental health outcomes. This underlines the role of community infrastructure–such as parks, safe streets, and trusted adults in neighborhoods–as contributors to adolescent flourishing (Barnhart et al., 2022).

There were several limitations to this analysis. Environmental factors were not comprehensively captured in either survey, limiting our understanding of broader influences such as housing stability, transportation, and access to green spaces. Regional challenges, such as underreporting or small sample sizes within Arizona, may limit generalizability of findings.

Several areas warrant further investigation and consideration for public health and research initiatives:

- Clarify Key Concepts: Better define vague terms such as “safety concerns” or “supportive environments” to ensure clarity and community-specific relevance in future surveys and interventions.
- Bullying and Mental Health: Explore the dynamic between adolescents who report being bullied and those who bully others, including how prior victimization may influence behavior and reporting. Addressing the cyclical relationship between bullying and poor mental health is critical.
- Support for Parenting: Develop and evaluate parenting programs that offer mental health support for both mothers and fathers, particularly among low-income and racially diverse families. Promoting resilience and emotional support for parents may yield downstream benefits for adolescent mental health.

In conclusion, creating safe and supportive environments is a multifaceted endeavor that requires attention to individual, familial, and community factors. Addressing disparities in parental support and coping, fostering positive social connections, mitigating the detrimental effects of bullying, and ensuring safe physical spaces are critical components of promoting adolescent mental health and well-being in Arizona. Future efforts should focus on clarifying key concepts, further exploring the complex relationship between bullying and mental health, and developing targeted support programs for parents, particularly those in underserved communities.

References:

- Berg, Noora, et al. “Pathways from Problems in Adolescent Family Relationships to Midlife Mental Health via Early Adulthood Disadvantages – a 26-Year Longitudinal Study.” PloS One, vol. 12, no. 5, 2017, pp. e0178136–e0178136, https://doi.org/10.1371/journal.pone.0178136.
- Lamblin, M., et al. “Social Connectedness, Mental Health and the Adolescent Brain.” Neuroscience and Biobehavioral Reviews, vol. 80, 2017, pp. 57–68, https://doi.org/10.1016/j.neubiorev.2017.05.010.
- Taylor RJ, Chatters LM, Woodward AT, Brown E. Racial and Ethnic Differences in Extended Family, Friendship, Fictive Kin and Congregational Informal Support Networks. Fam Relat. 2013 Oct 1;62(4):609-624. doi: 10.1111/fare.12030. PMID: 25089067; PMCID: PMC4116141.
- Birrell, L., Werner-Seidler, A., Davidson, L., Andrews, J. L., & Slade, T. (2025). Social connection as a key target for youth mental health. Mental Health & Prevention, 37, 200395. https://doi.org/10.1016/j.mhp.2025.200395
- Ye, Z., Wu, D., He, X. et al. Meta-analysis of the relationship between bullying and depressive symptoms in children and adolescents. BMC Psychiatry 23, 215 (2023). https://doi.org/10.1186/s12888-023-04681-4
- Barnhart S, Bode M, Gearhart MC, Maguire-Jack K. Supportive Neighborhoods, Family Resilience and Flourishing in Childhood and Adolescence. Children (Basel). 2022 Apr 1;9(4):495. doi: 10.3390/children9040495. PMID: 35455539; PMCID: PMC903055.

3

Healthy Habits, Healthy Minds:

Exploring Wellness Behaviors in Teens



Healthy Habits, Healthy Minds: Exploring Wellness Behaviors in Teens

Adolescence is a critical time for building habits that support long-term mental and physical health. Wellness behaviors including adequate sleep, regular physical activity, good nutrition, and limited screen time, form the foundation of adolescent flourishing. These habits don't develop in isolation; they are shaped by household resources, neighborhood infrastructure, social environments, and systemic inequities.

Food security, in particular, is an essential determinant of adolescent wellness. While often linked to household income, food security is also largely influenced by geography, racial and ethnic disparities related to household income levels, knowledge about nutrition, and access to healthy food options. In this section, we will examine not only whether adolescents have enough to eat, but whether they consistently have access to nutritious meals—a distinction that reveals deeper disparities.

Beyond food, daily movement, sleep, and screen time also play a vital role in shaping adolescent well-being. Physical activity levels among Arizona youth are on par with national averages, though participation in organized sports is lower—particularly among teens in lower-income households and single-parent families. Encouragingly, environmental supports like access to parks, sidewalks, and safe neighborhoods are relatively strong in Arizona and associated with more frequent activity.

Still, challenges persist: screen time remains high, especially among youth from lower-income and less supportive neighborhoods, and most teens are not getting the sleep they need. This section will explore how these behavioral patterns are linked to mental health outcomes, including suicidality, self-harm, and school engagement. By understanding how these habits intersect with environmental factors and lifestyle behaviors, we can better support Arizona adolescents in developing the healthy routines they need to thrive.



Table C1. Indicators of wellness behaviors and food security, AZ vs. nationwide (%)

Categories	2021-2022 NSCH AZ (%)	2021-2022 NSCH Nationwide (%)	2021 YRBS AZ (%)
Physical Activity and Environment			
Children who are active at least 60 minutes per day, everyday	15	14	22
Children participated in sports team or sport lessons	39	51	N/A
Access to a nearby park	81	76	N/A
Neighborhood has sidewalks	86	76	N/A
Food Security			
We could always afford to eat good nutritious meals	66	68	N/A
We could always afford to eat but not always the kinds of food we should eat	30	27	N/A
Sometimes or often we could not afford to eat	4	6	N/A
Most of the time or always went hungry because there was not enough food at home	N/A	N/A	4
Never/rarely/sometimes went hungry because there was not enough food at home	N/A	N/A	96
Sleep			
Adequate hours of sleep (appropriate for age*)	64	67	-
8+ hours of sleep per night	-	-	21
Screen Time			
Less than 1 hour	3	4	4
1 hour	5	8	5
2 hours	24	24	13
3 hours	27	25	20
4 or more hours	40	39	57

Note. N/A = Not available; * NSCH defines the recommended sleep duration as 8 to 10 hours per 24 hours for adolescents aged 12–17 based on guidelines from the American Academy of Sleep Medicine.

According to the 2021-2022 NSCH, 15% of Arizona adolescents engaged in physical activity at least 60 minutes per day, everyday. In the 2021 YRBS, 22% of Arizona adolescents reported that they were physically active at least 60 minutes per day everyday. Physical activity levels are similar to the national average, though participation in sports is lower in Arizona (39% vs. 51%). Arizona shows strengths in environmental factors, with higher access to parks (81% vs. 76%) and sidewalks (86% vs. 76%), compared to the national average.

Food security in Arizona is slightly below the national average, with fewer families always able to afford nutritious meals (66% vs. 68%) and more reporting limited food options. Based on the YRBS, 4% of Arizona adolescents reported that they most of the time or always went hungry because there was not enough food at home, while a majority of adolescents (96%) never, rarely, or sometimes went hungry due to limited access to food.

Sleep adequacy is also slightly lower in Arizona, with only 64% getting age-appropriate sleep and just 21% of teens reporting 8+ hours per night. Screen time is a notable concern, as 40% of children in NSCH—and an even higher 57% in YRBS—spend 4 or more hours daily on screens, exceeding national averages. Overall, while Arizona performs well in infrastructure, challenges remain in sports participation, sleep, food security, and screen time.

Food Insecurity and Mental Health: A Hidden Problem Among Adolescent

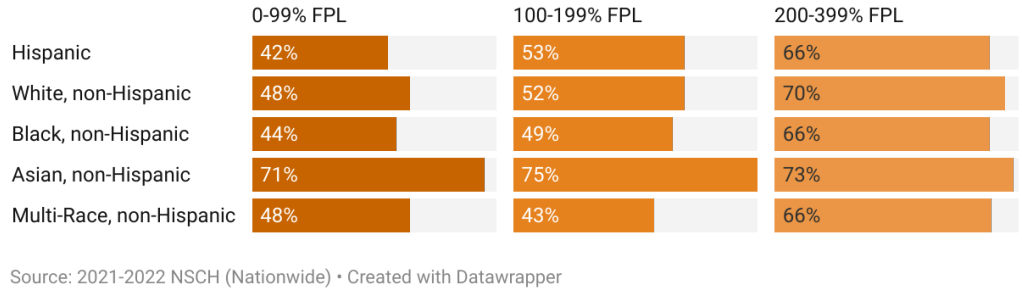
Parents' ability to "always afford to eat nutritious meals" was positively associated with the federal poverty level (FPL), or household income. As household income increased, the percentage of adolescents who were food secure also increased (Figure C1). This relationship held true across all racial and ethnic groups; however, some differences in the strength of this association were evident. Hispanic adolescents in the 0–99% FPL bracket had lower rates of living in households where parents could always afford nutritious meals compared to other racial/ethnic groups. Conversely, Asian, non-Hispanic adolescents consistently had higher rates of living with parents who could always afford nutritious meals across all FPL levels, suggesting their food security was less influenced by household income (Figure C1). In cases where increased income did not correspond with improved food security, other factors such as food availability and nutrition knowledge should be addressed to enhance food security.

The percentages of adolescents living in households where parents could "afford enough to eat but not always the kinds of food they should eat" are shown in Figure C2. This trend was consistent across all racial and ethnic groups, except for the Asian, non-Hispanic population, which did not appear to be affected by household income. Hispanic and Multiracial, non-Hispanic adolescents had the highest rates of not always having nutritious foods available at all FPL levels.

Furthermore, 42% of American Indian and Alaska Native (AI/AN) and 70% of Native Hawaiian and Pacific Islander (NHPI) adolescents lived in households that could always afford nutritious foods (Figure C3). Additionally, 35% of AI/AN and 27% of NHPI adolescents lived in households that could always afford enough to eat, but not necessarily nutritious foods. (The sample sizes for these groups were not large enough to allow for income-based stratification.)

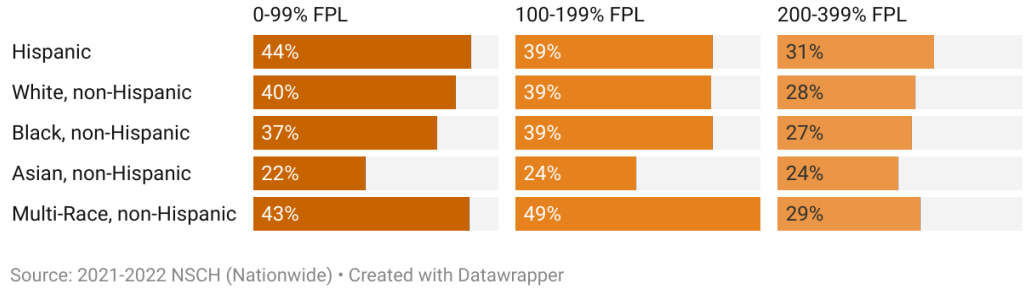
> As household income increased, the percentage of adolescents who were food secure also increased.

Figure C1. Ability to afford nutritious meals by FPL and race/ethnicity



Note. Data for 400+% FPL were suppressed due to an insufficient sample size.

Figure C2. Ability to 'afford enough to eat, but not always the kinds of food we should eat' by FPL and race/ethnicity



Note. Data for 400+% FPL were suppressed due to an insufficient sample size.

Figure C3. Food insecurity for AI/AN and NHPI

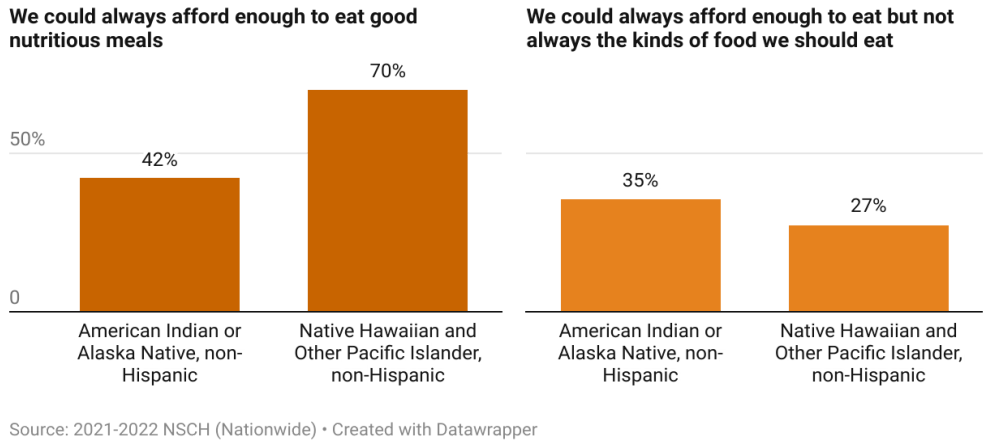
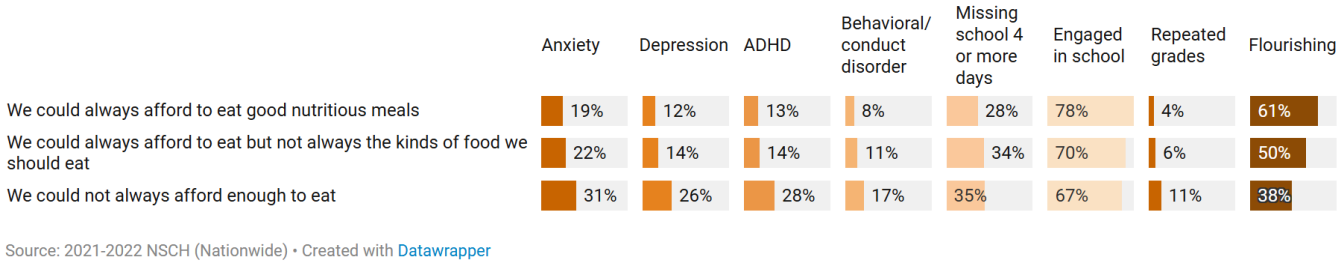


Figure C4. Association between ability to afford nutritious meals, mental health, and school engagement



Adolescents who lived with parents who could always afford nutritious meals experienced lower rates of mental health challenges (Figure C4). Among food-insecure adolescents, 31% reported anxiety (compared to 19% of their peers in households that could always afford nutritious meals), 26% reported depression (vs 12%), 28% had ADHD (vs 13%), and 17% experienced behavioral or conduct disorders (vs 8%).

Food security was also closely linked to academic engagement and flourishing. Adolescents who were flourishing were more likely to live in households where parents could afford nutritious meals compared to those whose parents could not always afford enough to eat (61% vs 38%). Additionally, 78% of food-secure adolescents were engaged in school, with only 4% repeating a grade—compared to 67% engagement and 11% grade repetition among food-insecure peers.

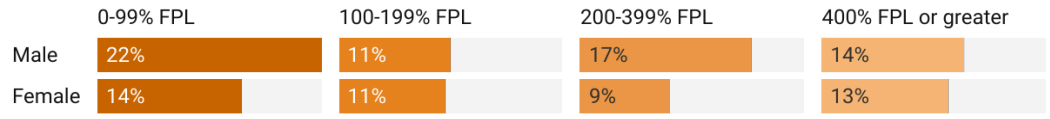
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How Physical Activity Shapes Adolescent Mental Health

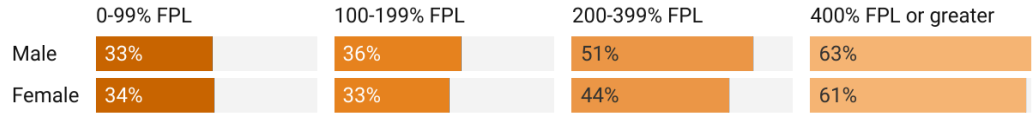
Adolescent physical activity was notably associated with household income, only among males. 22% of males in 0-99% FPL were physically active 60+ minutes per day everyday, which was higher than 11% in 100-199% FPL, 17% in 200-399% FPL, and 14% in 400+% FPL (Figure C5). Also, sex was associated with physical activity in 200-399% FPL (17% in males vs. 9% in females): more males in 200-399% FPL households were physically active everyday than males. In Figure C6, higher FPL or higher household income was associated with sports team participation in both males (33% in 0-99% FPL vs 63% in 400+ FPL) and females (34% in 0-99% FPL vs 61% in 400+ FPL).

Figure C5. Physically active 60+ minutes per day everyday by sex and FPL



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

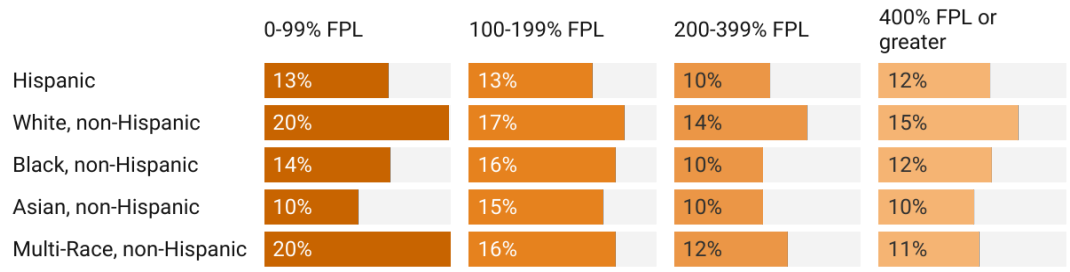
Figure C6. Sports team participation by sex and FPL



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Physical activity was not always notably different when stratified by race/ethnicity and federal poverty level (FPL). Among those in the 0–99% FPL, 20% of non-Hispanic White and 20% of non-Hispanic multiracial adolescents were physically active every day—higher than other racial/ethnic groups (Figure C7). Similar patterns were observed in the 200–399% FPL and 400%+ FPL.

Figure C7. Physically active 60+ minutes per day everyday by FPL and race/ethnicity



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper



Significant differences in sports team participation were also seen by race/ethnicity and FPL (Figure C8). This increase was largest for the non-Hispanic Asian adolescents with an increase from 29% in the 0-99% FPL category to 59% in the 400+% FPL category. Hispanic, non-Hispanic White, and non-Hispanic Black adolescents had roughly the same increase from an average of 36% participation in the lowest FPL category to an average of 65% participation in the highest FPL category.

Figure C8. Sports team participation by FPL and race/ethnicity

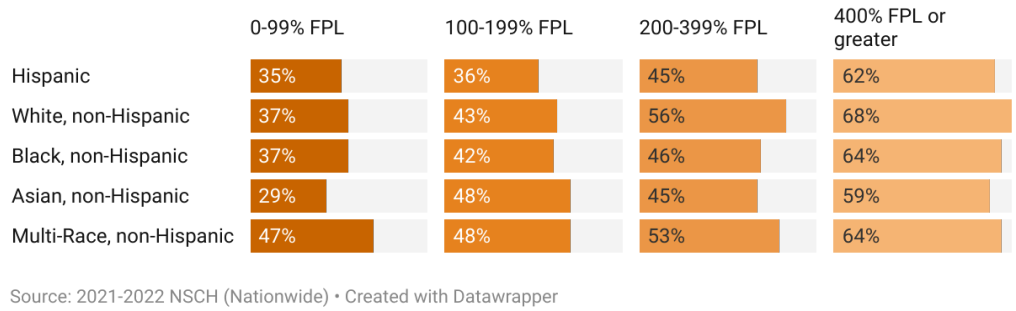
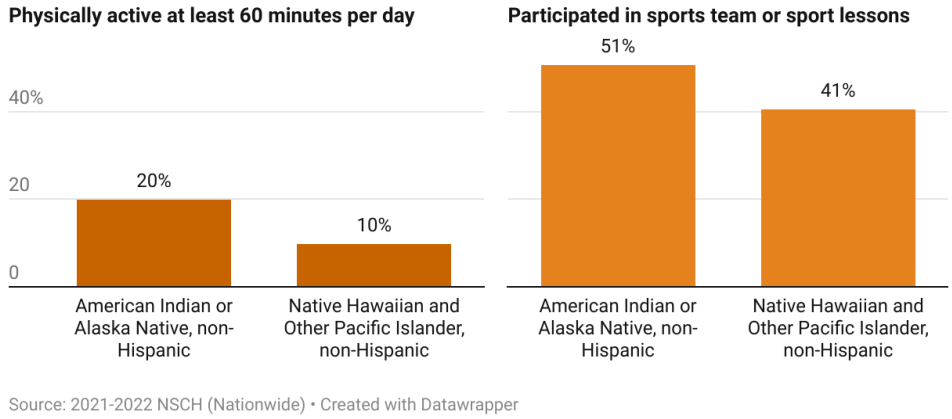


Figure C9. Physical activity and sports team participation for AI/AN and NHPI



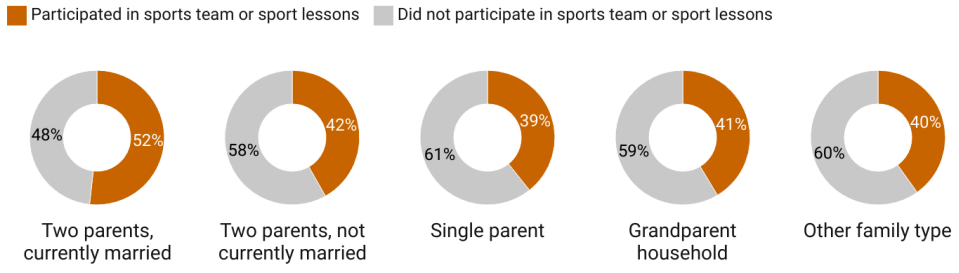
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Regarding AI/AN and NHPI adolescents, only 20% of AI/AN adolescents were active 60+ minutes per day while 51% of them participated in a sports team (Figure C9). 10% of NHPI adolescents were active 60+ minutes per day while 41% of them participated in a sports team. Overall findings highlight differences in physical activity and sports participation, emphasizing the influence of both socioeconomic status and cultural factors on health-related behaviors.

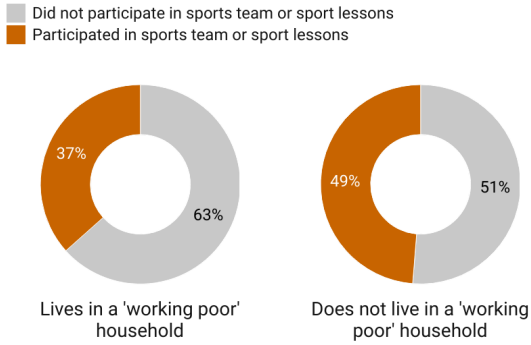
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Figure C10. Participation in sports team by family structure



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure C11. Participation in sports by 'working poor' household



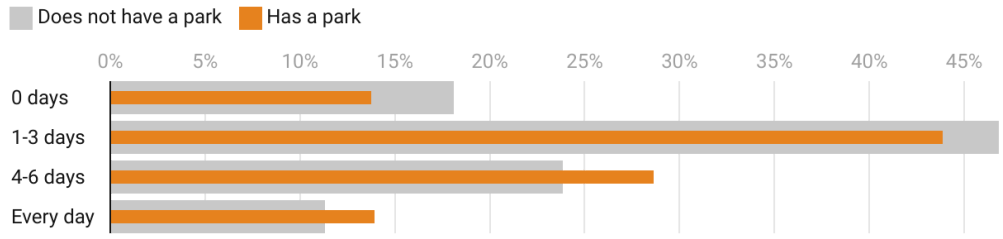
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper



Moreover, 52% of adolescents whose parents are currently married participated in sports teams compared to an average of 41% for all other family structure types (Figure C10). Fewer adolescents of single-parent households participated in sports (39%), indicating that the support available in other family structure types may facilitate sports team participation (Figure C10). Additionally, 37% of adolescents who live in a 'working poor' household participated in sports teams compared to the 49% of adolescents in sports who do not live in a 'working poor' household (Figure C11).

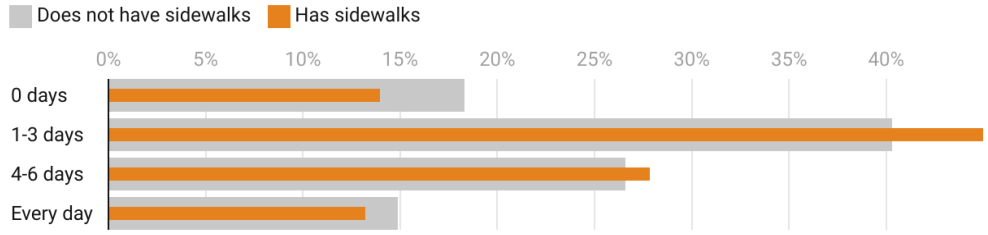
When adolescents lived near a park, they were more likely to be active 4-6 days a week (Figure C12). This demonstrates an association between proximity to a park and healthy levels of activity in adolescents. Furthermore, adolescents were more likely to be physically active for 1-6 days when their neighborhood had sidewalks compared to those who did not (Figure C13). However, the association between physical activity and sidewalks does not hold true for being physically active every day of the week (14% vs 15%) (Figure C13). More importantly, 18% of adolescents who did not have sidewalks in their neighborhood were physically inactive, which was higher than adolescents who have sidewalks (15%). Both sidewalk and park indicators illustrate that the built environment of adolescent neighborhoods is important in facilitating physical activity.

Figure C12. Physical activity by proximity to park



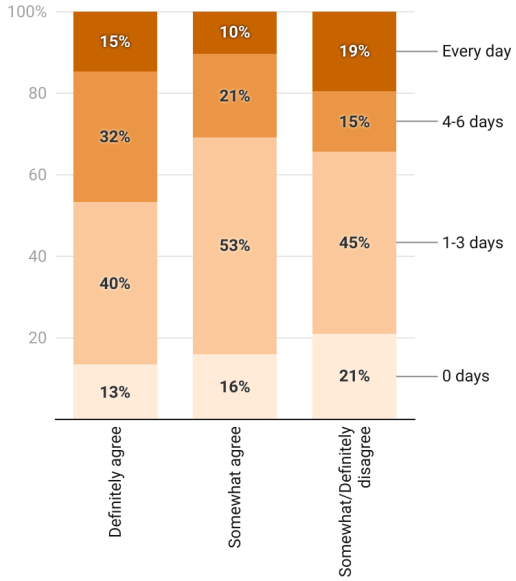
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure C13. Physical activity by sidewalks in neighborhood



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure C14. Physical activity by the degree to which parents agreed their neighborhood was safe

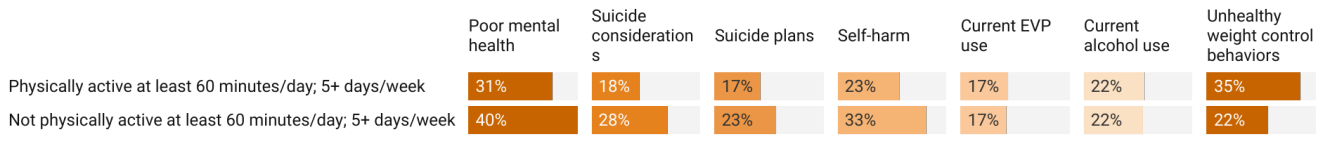


Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Neighborhood safety is linked to adolescent physical activity: 47% of teens in safe neighborhoods were active 4–7 days per week, compared to 34% in unsafe areas. Teens in unsafe neighborhoods were both more likely to be active every day (19%) and more likely to be entirely inactive (21%; Figure C14).

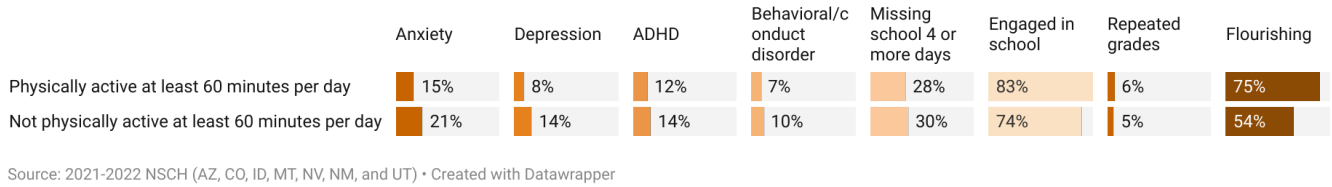
Overall, higher physical activity and sports team participation were linked with better mental health and school engagement. Adolescents active at least 60 minutes on 5+ days per week report lower rates of poor mental health (31% vs 40%), suicidal thoughts (18% vs 28%), suicide planning (17% vs 23%), and self-harm (23% vs 33%; Figure C15). Diagnosed conditions followed a similar pattern, with fewer reports of anxiety, depression, ADHD, and behavioral disorders among more active teens (Figure C16 on page 42). Active adolescents also show higher rates of school engagement (83% vs 74%) and flourishing (75% vs 54%; Figure C16). Similar trends are seen with sports team participation, which is also linked to better mental health, school engagement (80% vs 70%), and flourishing (63% vs 51%; Figure C17 on page 42).

Figure C15. Association between physical activity, mental health, and risky behaviors (YRBS)



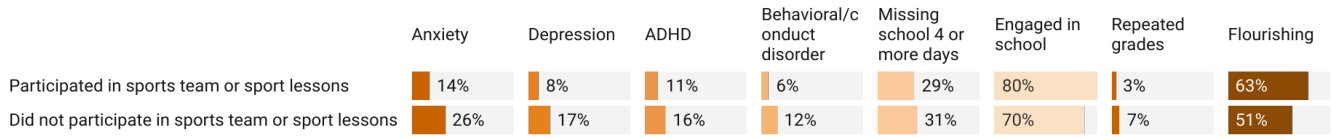
Source: 2021 YRBS (AZ) • Created with Datawrapper

Figure C16. Association between physical activity, mental health, and school engagement (NSCH)



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure C17. Association between sports team participation, mental health, and school engagement



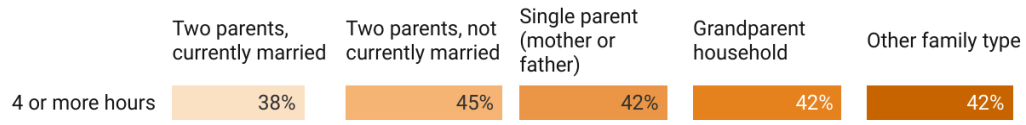
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

However, no differences were found in electronic vapor product (EVP) or alcohol use (Figure C15). Notably, unhealthy weight control behaviors (UWCB) were more common among physically active teens (35% vs 22%), possibly due to excessive exercise being a form of UWCB or related to the higher prevalence of eating disorders among athletes, which is discussed further in discussion on page 45.

"Screened Out": Is Too Much Tech Hurting Mental Health?

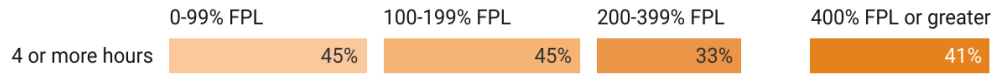
Screen time, excluding hours spent for school work, is influenced by family and neighborhood environments, as well as participation in afterschool activities, and volunteer activities. First, Arizona adolescents in two-parent, currently married households had lower rates of 4+ hours of screen time (38%), compared to adolescents in other family structures (42-45%; Figure C18). More adolescents in lower FPLs (i.e., 0-99% FPL and 100-199% FPL) engaged in 4+ hours of screen time, compared to their peers in higher FPL households (Figure 19).

Figure C18. Percentages of adolescents engaging in 4+ hours of screen time by family structure



Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Figure C19. Percentage of adolescents engaging in 4+ hours of screen time by FPL

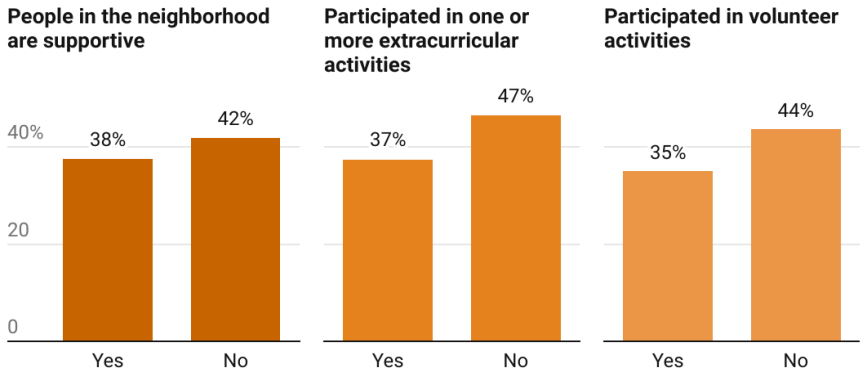


Source: 2021-2022 NSCH (AZ) • Created with Datawrapper



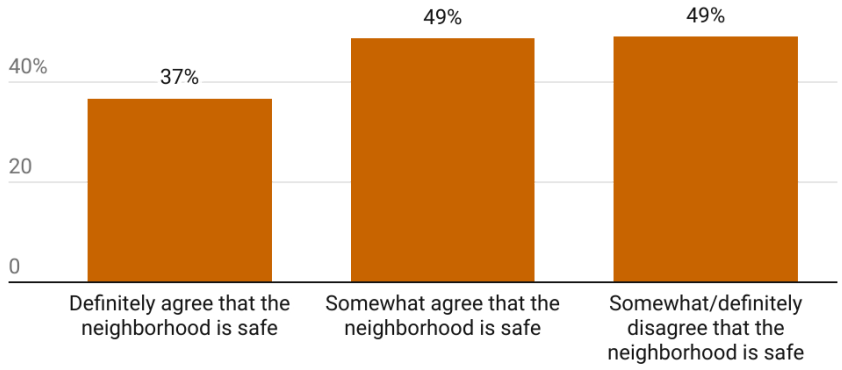
Adolescents who lived in a supportive neighborhood less often engaged in 4+ hours of screen time per day on weekdays than those who did not live in a supportive neighborhood (38% vs 42%; Figure C20). Additionally, adolescents who participated in at least one extra curricular activity or volunteer less often engaged in 4+ hours of screen time than those who did not (37% vs 47% and 35% vs 44%, respectively). Neighborhood safety also played a role in adolescent screen time with 37% of adolescents who lived in a safe neighborhood engaging in 4+ hours of screen time compared to 49% of adolescents who lived in an unsafe neighborhood (Figure C21). Overall findings highlight the influence of supportive home and community environments on screen time habits among adolescents.

Figure C20. Association between 4+ hours of screen time and neighborhood environment and activities



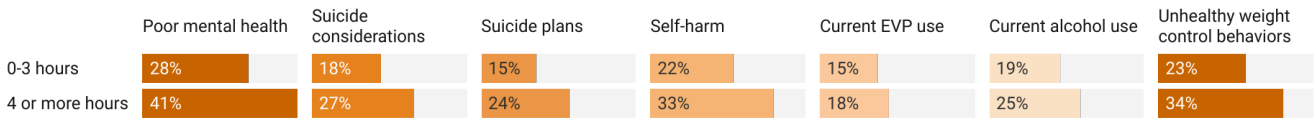
Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Figure C21. Association between 4+ hours of screen time and neighborhood safety



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure C22. Association between 4+ hours of screen time per day, mental health, and risky behaviors



Source: 2021 YRBS (AZ) • Created with Datawrapper

It is also important to note that Arizona adolescents who engaged in 4+ hours of screen time were more likely to report poor mental health indicators as well as engage in risky behaviors. Among adolescents who had 4+ hours of screentime, 41% reported poor mental health (vs 28%), 27% reported suicide considerations (vs 18%), 24% reported having suicide plans (vs 15%), and 33% reported engaging in self-harm, (vs 22%) (Figure C22).

Although it's unclear whether excessive screen time contributes to poor mental health or if adolescents with existing mental health challenges turn to screens as a coping mechanism, the association is evident. Findings underscore the importance of helping young people engage with screens, whether social media, television, or video games, in a healthy and balanced way.

Overall findings highlight the influence of supportive home and community environments on screen time habits among adolescents.

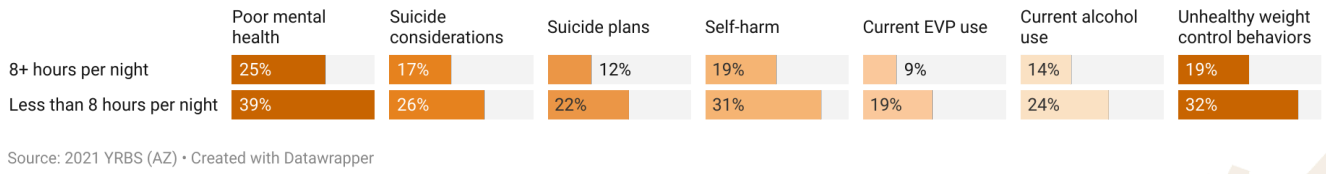
Arizona adolescents who engaged in 4+ hours of screen time were more likely to report poor mental health indicators as well as engage in risky behaviors.

Sleep and Mental Health: Why Rest Matters

Adequate sleep (8+ hours per night) is important for maintaining good mental health. Arizona adolescents who got 8+ hours of sleep per night were less likely to experience poor mental health and engage in unhealthy behaviors. Specifically, 25% of adolescents who had 8+ hours of sleep per night reported poor mental health (vs 39% who did not get the same amount of sleep and reported poor mental health), 17% reported suicide considerations (vs 26%), 12% reported suicide plans (vs 22%), and 19% reported self-harm (vs 31%) (Figure C23). Adolescents who had 8+ hours of sleep also reported lower rates of both EVP use (9% vs 19%) and alcohol use (14% vs 24%). Additionally, 19% of adolescents who had 8+ hours of sleep reported engaging in UWCB compared to 32% who engaged in the same but did not get the same amount of sleep. These findings show the critical role of sufficient sleep in supporting adolescent mental health and reducing risky behaviors.

Arizona adolescents who got 8+ hours of sleep per night were less likely to experience poor mental health and engage in unhealthy behaviors.

Figure C23. Association between 8+ hours of sleep per night, mental health, and risky behaviors



Discussion

This section underscores the critical interplay between adolescent wellness behaviors and mental health, highlighting the multifaceted impact of socioeconomic, environmental, and demographic factors. While Arizona adolescents benefit from relatively strong environmental infrastructure, the state lags behind national benchmarks in key areas of health behavior. These behavioral gaps are further compounded by economic and racial disparities that shape adolescent experiences and outcomes.

Food security emerges as a pivotal determinant of adolescent mental health. Adolescents from food-secure households exhibit markedly better mental health and academic engagement. Conversely, food insecurity is strongly associated with higher rates of anxiety, depression, ADHD, and behavioral disorders. These findings suggest that policies aimed at improving food access and nutrition could yield significant mental health benefits. Importantly, race and ethnicity moderated these effects; for example, Hispanic and multiracial adolescents faced greater food insecurity across all income levels, while Asian adolescents showed higher resilience, suggesting that cultural and systemic differences may influence these outcomes.

Physical activity also demonstrates strong relationships with mental health and flourishing. Adolescents engaging in daily exercise or participating in sports teams were more likely to report lower rates of poor mental health and greater school engagement. However, disparities persist by sex, income, race, and family structure. Participation is lowest among adolescents from single-parent and working poor households, indicating structural barriers such as cost, time, and access to programs. Despite better access to parks and sidewalks, Arizona teens are not fully capitalizing on these assets, suggesting the need for enhanced community programming and targeted outreach.

It is also important to note that the most physically active Arizona teens were more likely to engage in unhealthy weight control behaviors. Beyond general risk factors for eating disorders, athletes additionally encounter sport-specific risk factors, such as dieting pressure within aesthetic, endurance, and weight class sports, sustaining injuries, and the impact of coaching behavior (Bratland-Sanda et al., 2013). Adults who support adolescents' participation in physical activity and sport, such as coaches, caregivers, and physical education teachers, should receive education on eating disorders, including sport-related risk and protective factors, early identification of signs and symptoms, and managing concerns that arise (Bratland-Sanda et al., 2013).

Excessive screen time and inadequate sleep pose significant risks to adolescent well-being. Teens who spend four or more hours daily on screens—especially those in low-income or unsupportive environments, report poorer mental health and higher rates of risky behaviors. Similarly, those sleeping less than eight hours per night face greater risks of suicidal thoughts, substance use, and unhealthy weight control behaviors. Extended screen use also limits time for physical activity and reduces motivation to engage in outdoor or recreational pursuits. These patterns highlight the need for coordinated efforts by families, schools, and communities to support healthier routines and digital habits.

In sum, while Arizona shows promise in some environmental supports, persistent insecurities across socioeconomic, racial, and familial lines continue to drive disparities in adolescent health. Comprehensive interventions that integrate mental health support with improvements in nutrition, physical activity, sleep, and digital engagement are critical for advancing adolescent well-being in the state.

References

- American Academy of Pediatrics. (2016). *Promoting Optimal Development: Screening for Behavioral and Emotional Problems. Pediatrics, 135*(2), 384–395. https://doi.org/10.1542/peds.2014-3716
- Centers for Disease Control and Prevention (CDC). (2022). *Youth Risk Behavior Survey Data Summary & Trends Report: 2011–2021.* U.S. Department of Health and Human Services. Retrieved from https://www.cdc.gov/healthyyouth/data/yrbs/index.htm
- U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2023). *National Survey of Children's Health (NSCH), 2021-2022.* Retrieved from https://mchb.hrsa.gov/data/national-surveys
- Solfrid Bratland-Sanda & Jorunn Sundgot-Borgen (2013) Eating disorders in athletes: Overview of prevalence, risk factors and recommendations for prevention and treatment, European Journal of Sport Science, 13:5, 499-508, DOI: 10.1080/17461391.2012.740504

4

The Building Blocks of Childhood and How Early Experiences Shape a Lifetime



The Building Blocks of Childhood and How Early Experiences Shape a Lifetime

The Centers for Disease Control and Prevention (2021) define Adverse Childhood Experiences (ACEs) as "potentially traumatic events that occur from 0 to 17 years of age." Many types of traumatic or potentially traumatic events fall under the categories of ACEs, such as living with someone who has substance abuse problems or a mental illness, experiencing parental divorce or separation, and living with someone who has been incarcerated. Beyond individual experiences, broader community environments can directly or indirectly impact children, including poverty and community disruption.

The concept of Adverse Childhood Experiences (ACEs) as a cumulative score, tallying the number of distinct types of childhood adversity a person has faced, was first introduced by Felitti and his team in the 1990s (Felitti et al., 1998). Their influential research, which surveyed over 17,000 adults, marked a turning point in understanding the long-term consequences of childhood trauma. Felitti's work brought a new perspective by demonstrating how the accumulation of multiple adverse experiences could significantly affect a person's health later in life. In their approach, each type of adversity counted as one point toward a total ACE score. The results were eye-opening: more than half of the participants had encountered at least one ACE, and around 25% had two or more. Those with four or more ACEs were found to be at a much higher risk for issues like substance abuse, depression, suicide attempts, and a range of other health and behavioral problems. On the other hand, Positive Childhood Experiences (PCEs) are experiences during childhood that promote safe, stable, and nurturing relationships and environments (Anderson, 2022) which could alleviate the detrimental impact of ACEs.

This section will discuss the prevalence of ACEs and PCEs among Arizona adolescents, with particular attention to how these experiences vary across demographic groups such as age, sex, race/ethnicity, and socioeconomic status. It also examines the associations between ACE and PCE exposure and key outcomes including adolescent mental health and school engagement. By analyzing these relationships, we aim to better understand how both adverse and protective experiences shape mental health and identify subpopulations that may be at heightened risk or benefit most from targeted support.

References

- Anderson, K. (2022). CDC's Perspective on Generating and Updating the Definitions and Measures of ACEs and PCEs: Work for A New Generation of Equitable Research & Practice.
- Centers for Disease Control and Prevention. (2021). Adverse Childhood Experiences (ACEs). Vital Signs. Retrieved February 13, 2023, from https://www.cdc.gov/vitalsigns/aces/index.html#:~:text=ACEs%20can%20include%20violence%2C%20abuse,and%20substance%20misuse%20in%20adulthood.
- Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. Am J Prev Med. 1998 May;14(4):245–58. doi: 10.1016/S0749-3797(98)00017-8.

Table D1. Percentages of adolescents with ACEs, AZ vs. nationwide (%)

Categories	2021-2022 NSCH		2021 YRBS
	AZ (%)	Nationwide (%)	AZ (%)
Adverse Childhood Experiences (ACEs)			
Physical Neglect	N/A	N/A	15
Sexual Abuse	N/A	N/A	9
Emotional Abuse	N/A	N/A	58
Physical Abuse	N/A	N/A	14
Household Incarceration	10	9	17
Domestic Violence	7	7	3
Community Violence	8	6	23
Household Mental Illness	15	12	42
Household Alcohol/Drug Abuse	15	12	37
Treated or judged badly or unfairly due to health status	11	7	7
Treated or judged badly or unfairly due to race/ethnicity	4	5	N/A
Household Poverty	18	14	N/A
Parental Divorce	36	32	N/A
Parental Death	4	5	N/A
Number of ACEs			
No ACEs	41	50	22
1 ACE	29	26	21
2+ ACEs	30	25	57

Note. N/A = Not available.

Table D2. Percentages of adolescents with PCEs, AZ vs. nationwide (%)

Categories	2021-2022 NSCH		2021 YRBS
	AZ (%)	Nationwide (%)	AZ (%)
Positive Childhood Experiences (PCEs)			
Family Resilience	83	81	N/A
Supportive Neighborhoods	46	56	N/A
Safe Neighborhoods	58	67	N/A
Volunteer	33	40	N/A
Having an adult mentor (a supportive adult)	83	86	40
Sharing Ideas	62	57	N/A
Afterschool Activities	64	72	N/A
Feeling connected to people at school	N/A	N/A	47
Having a supportive friend	N/A	N/A	44

Categories	2021-2022 NSCH AZ (%)	2021-2022 NSCH Nationwide (%)	2021 YRBS AZ (%)
PCE Score (NSCH only)			
0-2 PCE	20	15	-
3-5 PCEs	57	53	-
6+ PCEs	24	32	-
Number of interpersonal support (i.e., supportive adults, friends, and school connectedness; YRBS only)			
No support	-	-	27
1-2 supports	-	-	58
3 supports	-	-	15

Note. N/A = Not available; - = Not relevant.

Table D1 presents the 2021-2022 NSCH and 2021 YRBS data on ACEs, noting some differences in the questions between the surveys. According to the NSCH, the most common ACEs among Arizona adolescents were parental divorce (36%), household poverty (18%), household mental illness (15%), and household alcohol/drug abuse (15%). Additionally, 29% had one ACE, and 30% had two or more ACEs. In Arizona–national comparisons, Arizona reported higher rates in 7 out of 10 ACEs, with notable differences in household mental illness (15% vs. 12%), household alcohol/drug abuse (15% vs. 12%), being treated or judged unfairly due to health status (11% vs. 7%), household poverty (18% vs. 14%), and parental divorce (36% vs. 32%). Additionally, the proportion of Arizona adolescents with 2 or more ACEs was higher than the national average (30% vs. 25%).

Based on the Arizona YRBS, the most common ACEs among Arizona adolescents were emotional abuse (58%), household mental illness (42%), and household alcohol/drug abuse (37%). Additionally, 21% reported one ACE, and 57% reported two or more ACEs.

Table D2 on PCEs highlight differences in supportive environments for Arizona youth. According to the NSCH, Arizona reported slightly lower rates than the national average in most PCE categories, including adult mentors (83% vs. 86%), supportive neighborhoods (46% vs. 56%), and safe neighborhoods (58% vs. 67%). Fewer Arizona youth reported volunteering (33% vs. 40%) and participating in afterschool activities (64% vs. 72%). Additionally, only 24% had 6 or more PCEs, compared to 32% nationally.

According to the YRBS, 40% of Arizona adolescents had a supportive adult, 44% had a supportive friend, and 47% felt connected to people at school. However, only 15% had all three interpersonal supports, while 27% had none, and 58% had 1 or 2.

These gaps in both PCEs and ACEs data suggest that Arizona's youth could benefit from more family-based and/or community-based programs, mentorship opportunities, and emotional support, which may ultimately help reduce the prevalence and impact of ACEs. Targeted investments in neighborhood safety, afterschool programs, and mental health services could strengthen the resilience of Arizona adolescents and better address both the protective and harmful factors affecting their lives.

In Arizona–national comparisons, Arizona reported higher rates in 7 out of 10 ACEs, with notable differences in household mental illness (15% vs. 12%), household alcohol/drug abuse (15% vs. 12%), being treated or judged unfairly due to health status (11% vs. 7%), household poverty (18% vs. 14%), and parental divorce (36% vs. 32%).

Arizona reported slightly lower rates than the national average in most PCE categories, including adult mentors (83% vs. 86%), supportive neighborhoods (46% vs. 56%), and safe neighborhoods (58% vs. 67%).

The Hidden Epidemic of ACEs

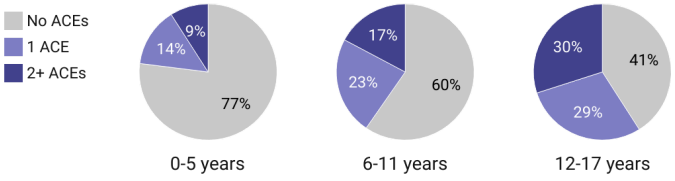
ACEs begin to affect many Arizona youth in early childhood and increase as they grow older. Figure D1 shows that 23% of children aged 0-5 had at least one ACE, and 9% had two or more. One in four children has already experienced ACEs before entering kindergarten. By ages 6-11, these numbers rose to 40% and 17%, respectively. By adolescence (ages 12-17), over half of Arizona youth experienced ACEs. These results highlight the importance of public awareness and early childhood intervention for ACEs, particularly for families with children aged 0-5 years. This critical period involves substantial developmental changes, and any disruptions to the cognitive, immune, and endocrine systems at this stage can have life-long consequences (Bhutta et al., 2023).

When examining the prevalence of two or more ACEs by race/ethnicity and federal poverty level (FPL), we found that the percentage of adolescents with 2+ ACEs generally decreased as FPL, or household income, increased. However, notable disparities remain across groups (Figure D2).

Using the expanded national sample, we disaggregated the data by race/ethnicity and FPL. Among adolescents in households at 0–99% of the FPL, 57% of multiracial, non-Hispanic adolescents had 2+ ACEs. This was followed by 41% of White, non-Hispanic adolescents, a higher percentage than Hispanic (26%), Black, non-Hispanic (35%), and Asian, non-Hispanic (11%) adolescents in the same income group. In the 400+% FPL group, Black, non-Hispanic adolescents had the highest prevalence of 2+ ACEs (24%), followed by Hispanic (17%), multiracial, non-Hispanic (17%), White, non-Hispanic (12%), and Asian, non-Hispanic (4%) adolescents.

The prevalence of 2+ ACEs among American Indian or Alaska Native (AI/AN), and Native Hawaiian and Other Pacific Islander (NHPI) adolescents was examined separately due to small sample sizes. Among these groups, 53% of AI/AN and 37% of NHPI adolescents had 2+ ACEs.

Figure D1. Distribution of ACE prevalence by age group

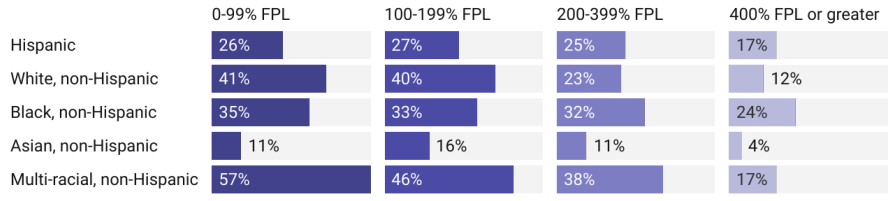


Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

23% of children aged 0-5 had at least one ACE, and 9% had two or more.

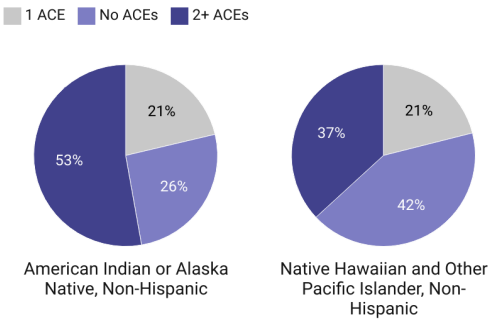
The percentage of adolescents with 2+ ACEs generally decreased as FPL, or household income, increased.

Figure D2. Prevalence of 2 or more ACEs (2+ ACEs) by race/ethnicity and federal poverty level (FPL)



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Figure D3. Prevalence of ACEs among AI/AN and NHPI



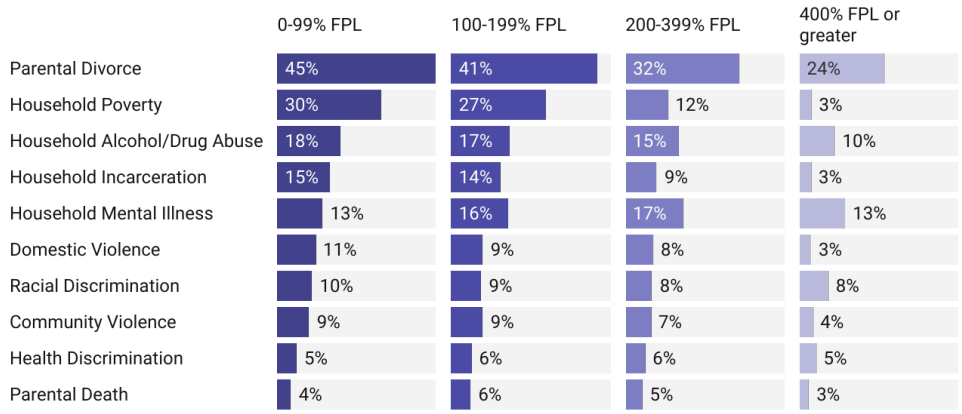
Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Bhutta, Z. A., Bhavnani, S., Betancourt, T. S., Tomlinson, M., & Patel, V. (2023). Adverse childhood experiences and lifelong health. *Nature Medicine, 29*(7), 1639-1648.

Figure D4 highlights a clear relationship between household income and the prevalence of individual ACEs, showing that children in lower-income households (especially those below the federal poverty line) are significantly more likely to experience events such as parental divorce, household substance abuse, incarceration, mental illness, and poverty itself. While parental divorce is the most common ACE across all income levels, issues like domestic violence, community violence, and discrimination are notably more prevalent among children in lower-income families. However, it is also worth noting that even among the highest-income group (400% FPL or greater), one in four adolescents experienced parental divorce, one in ten lived with someone struggling with alcohol or drug abuse, and one in ten lived with someone with a mental illness. This demonstrates that while the degree of exposure differs, ACEs affect children across all income levels.

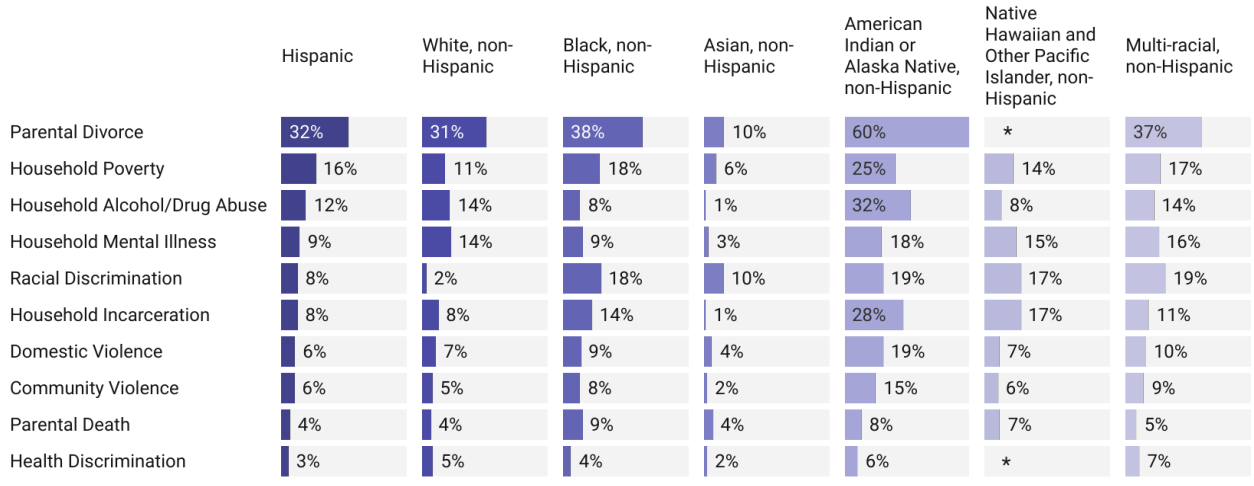
Figure D5 shows the prevalence of individual ACEs across different racial and ethnic groups. While all groups experienced ACEs to varying degrees, AI/AN faced the highest rates across nearly every category, with especially high rates in parental divorce (60%), alcohol/drug abuse (32%), and household incarceration (28%). Black, non-Hispanic adolescents also showed elevated levels of parental divorce (38%), household poverty (18%), and racial discrimination (18%). The data also reveals that multi-racial children and Native Hawaiian and Pacific Islander children tend to experience multiple ACEs at higher rates, particularly in household mental illness, domestic violence, and community violence.

Figure D4. Prevalence of individual ACEs by FPL



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure D5. Prevalence of individual ACEs by race/ethnicity



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

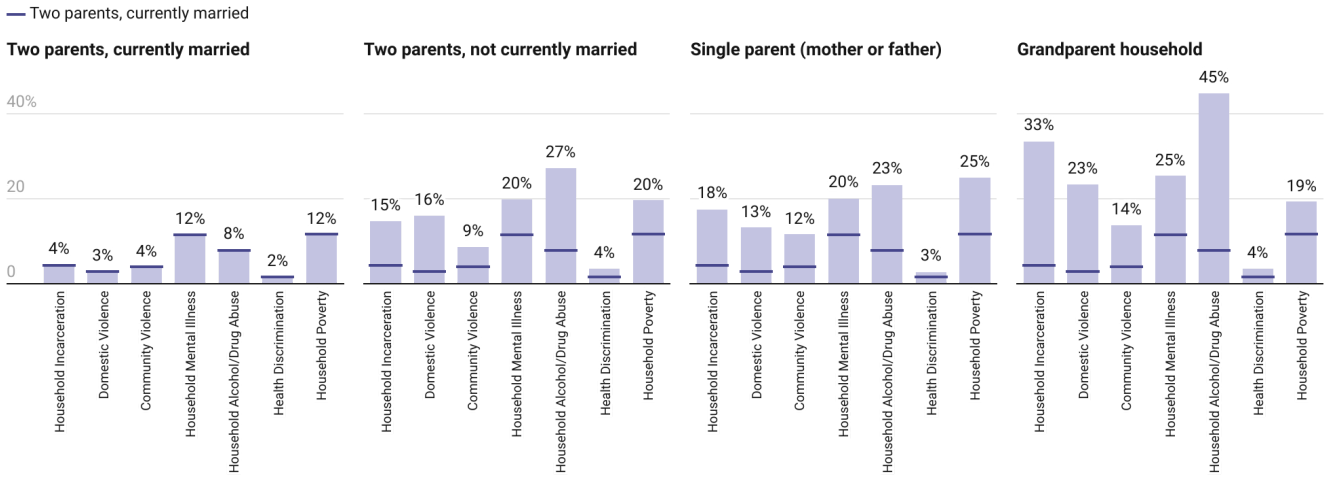
*Note. * Data was suppressed due to counts fewer than 6.*

We also explored the prevalence of individual ACEs and different family structures. Figure D6 shows that adolescents in two-parent, currently married households reported the lowest rates of household incarceration, domestic violence, community violence, household mental illness, household alcohol/drug abuse, health discrimination, and household poverty. Household alcohol/drug abuse and household mental illness were relatively common ACEs across all family types, while health discrimination consistently showed the lowest prevalence. The findings suggest potential vulnerabilities associated with these living arrangements.

When examining the association between ACEs and insurance type, adolescents with public and private health insurance (52%), public health insurance only (45%) or no insurance (27%) exhibited the highest rates of experiencing 2+ ACEs, while those with private health insurance showed the lowest rate (21%) and the highest proportion reporting no ACEs (55%). In addition, adolescents with special health care needs (SHCN) had a higher rate of 2+ ACEs (42%), compared to those without SHCN (25%). Further exploration is needed regarding the potential influence of both healthcare access and health status on the accumulation of ACEs in this population.

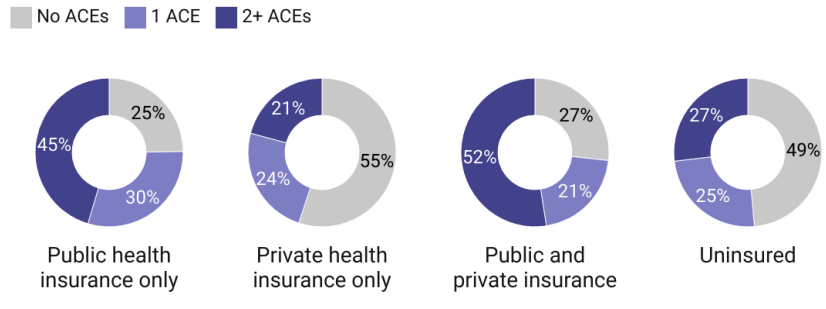
> Household alcohol/drug abuse and household mental illness were relatively common ACEs across all family structures.

Figure D6. Individual ACEs by family structure



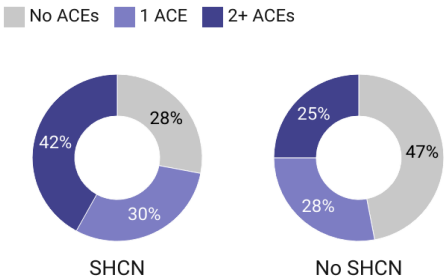
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure D7. Prevalence of ACEs by insurance type



Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Figure D8. Prevalence of ACEs by special health care needs (SHCN)



Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

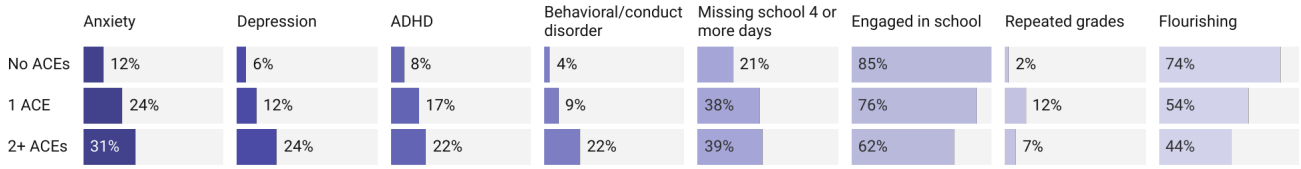
The ACEs and Mental Health Connection

There is a clear relationship between the number of ACEs and various indicators of mental health and school engagement in Arizona adolescents, supported by both parent and youth-reported data. In Figure D9, as the number of ACEs increased, the prevalence of negative mental health indicators rose: anxiety increased from 12% with no ACEs to 24% with 1 ACE and further to 31% with 2+ ACEs; depression similarly increased from 6% to 12% and then to 24%; ADHD prevalence moved from 8% to 17% and then to 22%; and behavioral/conduct disorder escalated from 4% to 9% and then to 22%. Concurrently, rates of missing 4 or more days of school increased from 21% (no ACEs) to 39% (2+ ACEs). Conversely, school engagement declined from 85% to 62%, and the rate of flourishing dropped from 74% to 44%.

Similar to the parent-reported NSCH, there is a substantial increase in the prevalence of negative mental health indicators and risky behaviors reported by youth as the number of ACEs increases (Figure D10). The rates of poor mental health have more than tripled, rising from 15% with no ACEs to 49% with 2+ ACEs. Suicide considerations increased from 5% to 36%, while suicide plans followed a similar trend. Self-harm also became significantly more prevalent, increasing from 7% to 42%. Furthermore, risky behaviors such as current electronic vapor product (EVP) use (5% to 25%), current alcohol use (8% to 30%), and unhealthy weight control behaviors (8% to 41%) also showed a clear positive association with an increasing number of ACEs. These findings underscore a strong link between multiple ACEs and a higher rate of poor mental health and engagement in risky behaviors during adolescence.

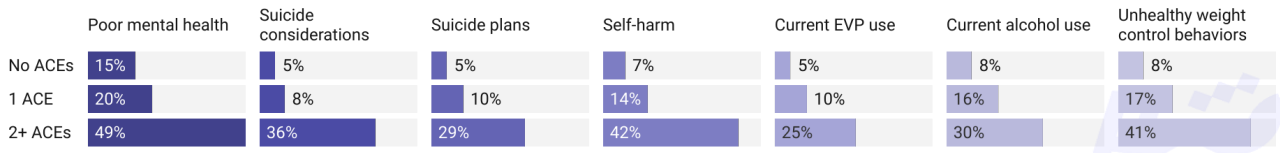
> There is a substantial increase in the prevalence of negative mental health indicators and risky behaviors as the number of ACEs increases.

Figure D9. Association between ACEs and mental health conditions and school engagement indicators



Source: 2021-2022 NSCH (AZ) • Created with Datawrapper

Figure D10. Association between ACEs and mental health and risky behaviors



Source: 2021 YRBS (AZ) • Created with Datawrapper

How Positive Experiences Shape Adolescent Well-Being

Figure D11 illustrates high PCEs (or 6+ PCEs) by race/ethnicity and income, revealing complex patterns. For all race/ethnicity groups, the reported prevalence of PCEs tends to increase as income rises from the lowest (0-99% FPL) to the highest (400% FPL or greater) income categories. Notably, White non-Hispanic adolescents consistently report the highest PCE prevalence across all income levels, while Asian non-Hispanic adolescents report the lowest PCEs (6%) in 0-99% FPL but show a significant increase with higher income.

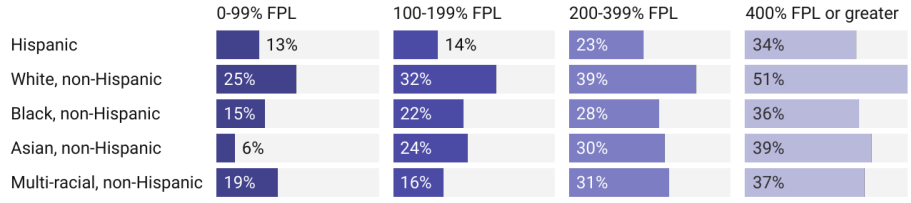
The NSCH did not have a large sample size for AI/AN and NHPI populations that would allow comparisons by household income. Among AI/AN, 28% of adolescents had 6+ PCEs, 61% had 3-5 PCEs, and 12% had 0-2 PCEs. 16% of NHPI adolescents had 6+ PCEs, a majority (65%) had 3-5 PCEs, and 16% had 0-2 PCEs (Figure D12).

When examining the link between high PCEs (or high interpersonal supports) and mental health and school engagement, both parent and youth-reported data show a strong inverse relationship: as the level of support increased, the prevalence of negative outcomes decreased substantially (Figure D13). For example, adolescents with 0-2 PCEs showed the highest prevalence of negative outcomes: 26% experienced anxiety, 21% depression, 19% ADHD, and 18% behavioral/conduct disorder.

In contrast, adolescents with 6+ PCEs exhibited the most positive outcomes: 16% experienced anxiety, 7% depression, 11% ADHD, and 5% behavioral/conduct disorder. Furthermore, 28% missed school for 4 or more days, 87% were engaged in school, only 2% repeated a grade, and 74% were flourishing. Those with 3-5 PCEs fell between these two extremes. In summary, a higher number of PCEs is strongly associated with a decreased rate of experiencing mental health problems and negative school outcomes, and with an increased rate of school engagement and flourishing in adolescence.

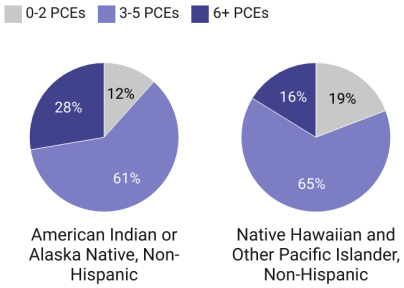
> As the level of support increased, the prevalence of negative outcomes decreased substantially.

Figure D11. Prevalence of high PCEs (6+ PCEs) by race/ethnicity and federal poverty level (FPL)



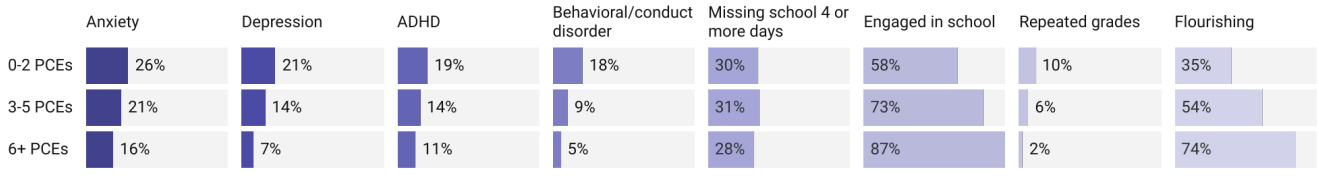
Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Figure D12. Prevalence of PCEs among AI/AN and NHPI



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapp

Figure D13. Prevalence of PCEs and mental health



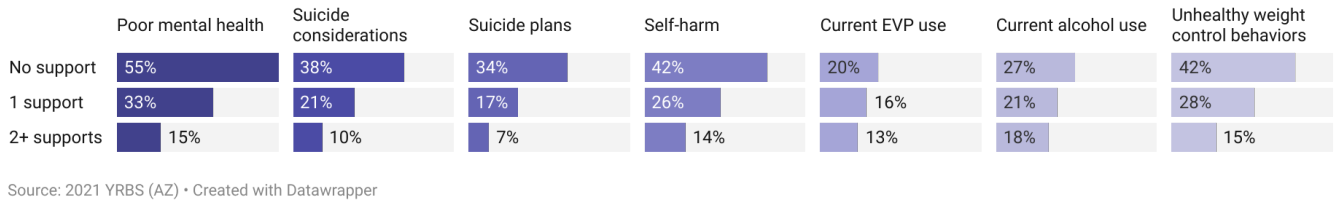
Source: 2021-2022 NSCH (AZ, CO, ID, MT, NV, NM, and UT) • Created with Datawrapper

Adolescents with strong interpersonal support (from trusted adults and friends) and a sense of school connectedness showed significantly lower rates of several negative health indicators. Specifically, only 15% reported poor mental health, 10% considered suicide, 13% used EVPs, 18% consumed alcohol, and 15% engaged in unhealthy weight control behaviors. This data is illustrated in Figure D14.

In addition, it is important to note that higher PCE scores are associated with greater flourishing, regardless of ACEs exposure (Figure D15). Adolescents with 6+ PCEs demonstrated the highest levels of flourishing, even when exposed to 2+ ACEs (69%). However, within each PCE group, increased ACEs were associated with decreased flourishing. For example, among those with 0-2 PCEs, flourishing declines from 35% in those with no ACEs to 18% in those with 2+ ACEs. This highlights that while positive experiences may buffer the negative impact of adversity, ACEs still eroded flourishing, and the presence of more positive childhood experiences was associated with higher levels of flourishing.

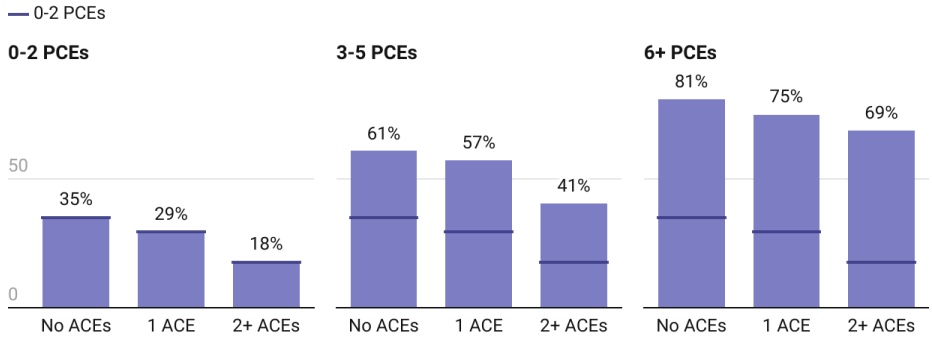
It is important to note that higher PCE scores are associated with greater flourishing, regardless of ACEs exposure.

Figure D14. Association between interpersonal supports and mental health and risky behaviors



Source: 2021 YRBS (AZ) • Created with Datawrapper

Figure D15. Prevalence of flourishing by cumulative ACEs and PCEs



Source: 2021-2022 NSCH (Nationwide) • Created with Datawrapper

Discussion

Both parent- and youth-reported data revealed that a significant proportion of Arizona adolescents were affected by ACEs (30% in NSCH and 57% in YRBS had two or more ACEs). The prevalence of ACEs was higher among adolescents from lower socioeconomic backgrounds, those covered by public health insurance, those not living in two-parent households, and those with special health care needs (SHCN).

Notably, adolescents consistently reported experiencing ACEs at nearly double the rate of their parents' reports and the findings should be interpreted cautiously. A key reason for this ambiguity is the inconsistency in how ACEs are defined and assessed across different surveys. For example, experiences like bullying, abuse, and neglect—core components of ACEs in broader literature—are either not included or not explicitly categorized as ACEs in certain iterations of the NSCH. In addition, this gap in the prevalence of individual ACEs between parent- and youth-reported data may reflect differences in perception, communication, or willingness to disclose adverse experiences, particularly for ACEs that are internal or emotionally sensitive (e.g., emotional abuse, being treated unfairly by others). Furthermore, ACEs such as parental divorce, poverty, domestic violence, and unfair treatment by others due to race/ethnicity were more frequently reported by parents, likely due to their visibility and objective nature, while adolescents may be more attuned to subtler or more subjective experiences of trauma.

As expected, adolescents with poor mental health were more likely to report having experienced two or more ACEs compared to their peers with better mental health. However, one counterintuitive pattern emerged: adolescents with a mental health diagnosis were less likely to report ACEs than those without such problems. This may reflect issues with self-reporting, denial, or a lack of awareness of certain adverse experiences, particularly among those with psychological distress.

The most widely accepted biological explanation for ACEs is allostatic load, which measures the long-term impact of stress on the body (Finlay et al., 2022). Normally, the body returns to a balanced state after a threat passes. But when stress is frequent, like in homes with violence or substance abuse, the brain stays on high alert, and the body doesn't recover properly. This chronic stress builds up as an allostatic load, and studies show that higher childhood trauma is linked to higher allostatic load and poorer health in adulthood. Therefore, multiple exposures to ACEs are linked with chronic disease, substance use, and educational outcomes (Bhutta et al., 2023).

Protective factors played a crucial role in buffering against poor mental health outcomes. Even after controlling for demographic factors and ACE exposure, the presence of PCEs, such as having a caring adult, feeling connected at school, or having supportive friendships—was associated with improved mental health. Interestingly, there was a mismatch between parent and adolescent perceptions regarding adult mentors. Parents tended to view mentors as highly involved, whereas adolescents did not always perceive these individuals as supportive or emotionally connected. This suggests that formal mentorship roles may not always be available or translate to meaningful, emotionally supportive relationships from the adolescent's perspective.

These findings align with prior research suggesting that PCEs have a buffering effect on the harmful consequences of ACEs (Han et al., 2023). They also echo literature that emphasizes the importance of subjective experience, what adolescents feel and perceive often matters more than what adults assume or observe. The physiological and psychological consequences of childhood adversity are context-dependent: while the biological response to stress may be similar, the long-term manifestation can vary significantly based on social, cultural, and relational contexts. This highlights the importance of tailoring interventions to fit the lived experience of the child rather than relying solely on external assessments.

Several limitations should be acknowledged. First, the structure and content of the surveys themselves constrain the scope of ACEs and PCEs that can be captured. Some categories of adversity—particularly abuse and neglect—are

underrepresented or ambiguously defined. Additionally, differences in reporting by adolescents versus parents introduce a layer of measurement bias that complicates interpretation. These limitations point to the need for more comprehensive, inclusive, and youth-centered tools for assessing childhood adversity and protective factors.

The findings highlight the critical importance of recognizing the differences in how parents and adolescents perceive and report ACEs and PCEs. Programs and initiatives aimed at supporting youth mental health should prioritize adolescent self-report and incorporate their voices into the design and evaluation of interventions. Additionally, understanding how specific ACEs and PCEs influence both short and long-term outcomes will be vital for tailoring support services.

Given the physiological effects of adversity on brain and body development, early intervention is crucial. Programs that foster supportive relationships, such as mentorships, school connection initiatives, and community-building efforts, can mitigate the effects of ACEs. However, attention must be paid to the quality and authenticity of these relationships from the adolescent's point of view.

Current efforts by state agencies and organizations like the Arizona Department of Health Services (ADHS), ACEs Consortium, and the Arizona Criminal Justice Commission (ACJC) offer promising models for addressing these issues at state and community levels. For example, both ADHS and ACJC use survey data to track the prevalence of ACEs and PCEs. ACEs Consortium provides its partners and communities with training materials on the impact of trauma and raises the public awareness of ACEs.

In summary, there is significant opportunity to enhance protective environments by increasing access to PCEs such as caring adult mentors. However, it is essential that these figures are perceived as genuinely supportive by the youth themselves. Future research and programming should explore how to bridge the perception gap between adults and adolescents regarding mentorship and other forms of support. In addition, **early prevention efforts aimed at reducing the impact of trauma, along with a deep understanding of ACEs within the specific context of Arizona, are essential to improving long-term health outcomes.** This approach will reduce healthcare and social service costs, ultimately leading to healthier childhood development and more resilient communities. By doing so, we can better promote resilience and mental well-being among youth, especially those who face adversity.

References

- Bhutta, Z. A., Bhavnani, S., Betancourt, T. S., Tomlinson, M., & Patel, V. (2023). Adverse childhood experiences and lifelong health. *Nature Medicine*, *29*(7), 1639-1648.
- Finlay, S., Roth, C., Zimsen, T., Bridson, T. L., Sarnyai, Z., & McDermott, B. (2022). Adverse childhood experiences and allostatic load: A systematic review. Neuroscience & Biobehavioral Reviews, 136, 104605.
- https://osg.ca.gov/wp-content/uploads/sites/266/2020/12/Cost-of-ACEs_CA_OSG-Report_12092020.pdf
- Han, D., Dieujuste, N., Doom, J. R., & Narayan, A. J. (2023). A systematic review of positive childhood experiences and adult outcomes: Promotive and protective processes for resilience in the context of childhood adversity. *Child Abuse & Neglect*, *144*, 106346.

Appendix 1: Special Populations

Female, and Lesbian, Gay, Bisexual, Queer, and Questioning (LGBQ+) Adolescents

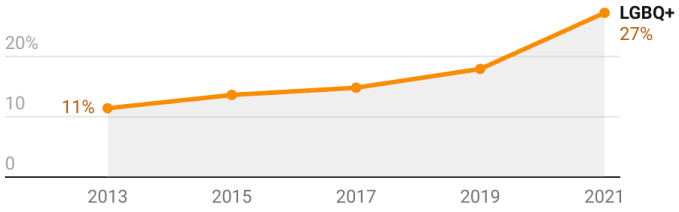
In Arizona, one third (27%) of adolescents identified as LGBQ+ (transgender [T] identity was not assessed in the 2021 Arizona YRBS). The proportion of LGBQ+ adolescents increased from 11% in 2013 to 27% in 2021 (Figure E1). 16% percent of Arizona adolescents identified as gay, lesbian, or bisexual, and 11% identified as queer, other or questioning (Figure E2).

The first *Adolescent Mental Health Report* revealed concerning trends in mental health among adolescents, showing that LGBQ+ and female youth experienced significantly higher rates of poor mental health compared to their heterosexual and male peers. These differences included elevated rates of self-harm, suicidal ideation, suicide planning, suicide attempts, and reports of poor mental health in the 30 days preceding the survey (Figures E3 and E4). 63% of LGBQ+ adolescents reported poor mental health in the past 30 days, compared to 26% of heterosexual peers. 51% of female adolescents reported poor mental health, compared to 22% of their male counterparts. 50% of LGBQ+ adolescents reported suicide consideration (vs 14% of heterosexual peers) and 53% of LGBQ+ adolescents (vs 21% of heterosexual peers) and 44% of female adolescents (vs 14% of male peers) reported engaging in unhealthy weight control behaviors.*

In the analysis for this report we looked at these disproportionately affected populations by each subgroup's indicators. **The Safe and Supportive Environments group highlighted** (Figures E5 and E6 on the next page):

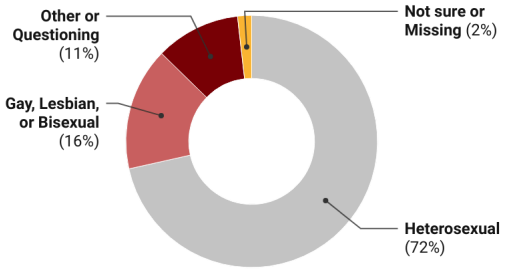
- ★ 18% of LGBQ+ adolescents missed school days due to safety concerns (vs 9% for heterosexual adolescents).
- ★ 9% of LGBQ+ adolescents reported having been threatened or injured on school property (vs 8% of heterosexual adolescents).
- ★ 15% of female adolescents missed school days due to safety concerns (vs 8% of males).

Figure E1. Trend in the percentages of Arizona adolescents who identify themselves as LGBQ+



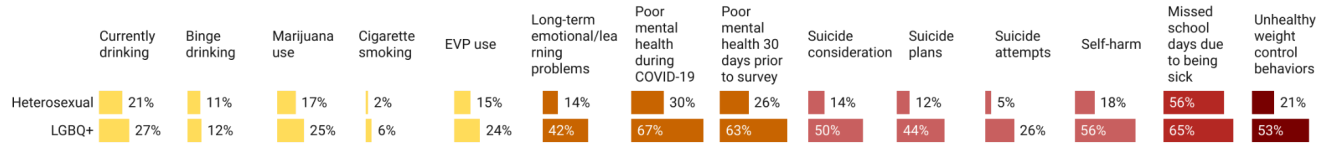
Source: 2021 YRBS (AZ) • Created with Datawrapper

Figure E2. Percentages of Arizona adolescents who identified themselves as LGBQ+



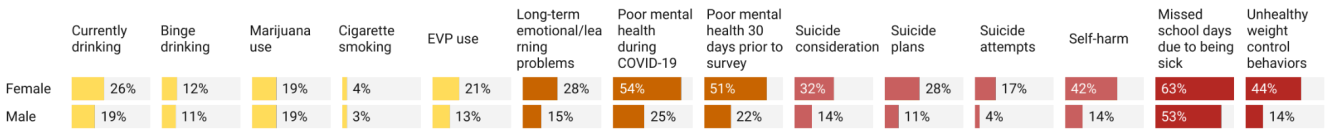
Source: 2021 YRBS (AZ) • Created with Datawrapper

Figure E3. Mental health and health behaviors by sexual orientation



Source: 2021 AZ YRBS • Created with Datawrapper

Figure E4. Mental health and health behaviors by sex



Source: 2021 AZ YRBS • Created with Datawrapper

*The lower reporting of unhealthy weight control behaviors by male adolescents may be attributed to engaging in behaviors not listed or for reasons other than weight loss or maintenance (e.g. muscularity-oriented disordered eating), which are not included in the survey item.

Figure E5. Safe and supportive environments by sexual orientation and sex

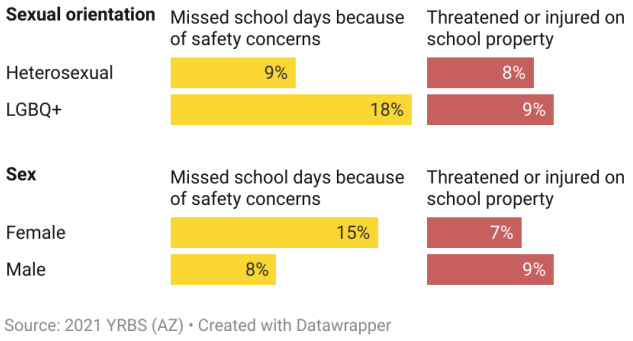


Figure E6. Interpersonal support and bullying by sexual orientation and sex

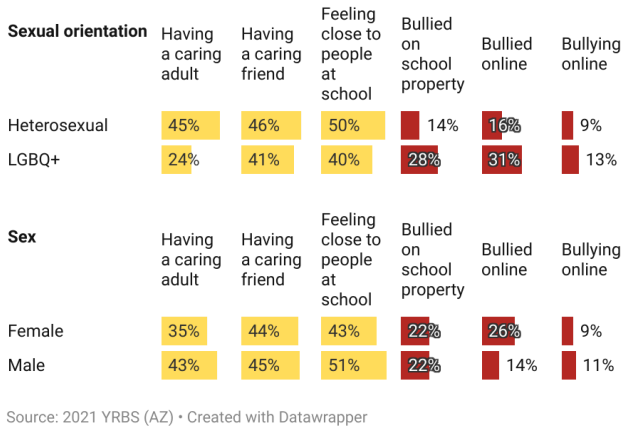


Figure E7. Physical activity, sleep, and screen time by sexual orientation and sex

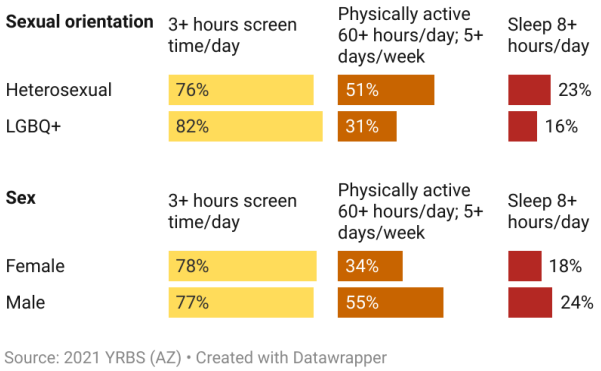
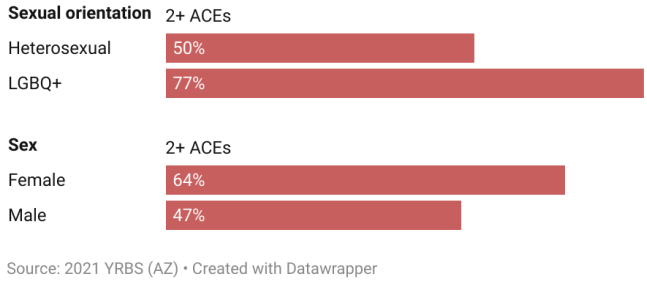


Figure E8. ACEs by sexual orientation and sex



★ 24% of LGBQ+ adolescents report having a caring adult (vs. 45% of heterosexual adolescents) and 35% of female adolescents reported the same (vs. 42% of males).
★ 40% of LGBQ+ adolescents report feeling close to people at school (vs. 50% of heterosexual adolescents) and 43% of female adolescents reported the same (vs. 51% of males).
★ 28% of LGBQ+ adolescents report being bullied on school property (vs. 14% of heterosexual adolescents).
★ 31% of LGBQ+ adolescents report being bullied online (vs. 16% of heterosexual adolescents) and 26% of female adolescents reported the same (vs. 14% of males).

The Lifestyle and Wellness Indicators group most notably highlighted (Figure E6):

★ 31% of LGBQ+ adolescents reported being active 60+ minutes per day 5+ days per week (vs. 51% of heterosexual adolescents) and 34% of female adolescents reported the same (vs. 55% of males).
★ 16% of LGBQ+ adolescents reported getting 8+ hours of sleep (vs. 23% of heterosexual adolescents) and 18% of females reported the same (vs. 24% of males).

The ACEs group most notably highlighted (Figure E7):

★ 77% of LGBQ+ adolescents reported 2+ ACEs (vs. 50% of heterosexual adolescents) and 64% of female adolescents reported the same (vs. 47% of males).

Understanding the distinct challenges faced by female and LGBQ+ adolescents in Arizona necessitates a comprehensive, collaborative strategy involving healthcare, education, and community organizations. Translating these insights into action is key to promoting health and wellness for all young people in Arizona.

Appendix 2: Questions used for data analysis

Table 1. National Survey of Children's Health questions related to health status, school engagement and absenteeism used for data analysis

Variables	Questionnaire	Response Options
Special health care needs (SHCN)	Indicator 1.11: Does this child have special health care needs (CSHCN) based on the CSHCN Screener?	Children with CSHCN Non-CSHCN
Anxiety	Does this child currently have anxiety problems, age 3-17 years?	Does not have condition Ever told, but does not currently have condition Currently has condition
Depression	Does this child currently have depression, age 3-17 years?	Does not have condition Ever told, but does not currently have condition Currently has condition
Behavioral/conduct disorder	Does this child currently have behavioral or conduct problems, age 3-17 years?	Does not have condition Ever told, but does not currently have condition Currently has condition
ADHD	Does this child currently have Attention Deficit Disorder (ADD) or Attention-Deficit/Hyperactivity Disorder (ADHD), age 3-17 years?	Does not have condition Ever told, but does not currently have condition Currently has condition
Missing school 4 or more days last year	Indicator 5.4: During the past 12 months, about how many days did this child miss school because of illness or injury, age 6-17 years?	0 days 1 - 3 days 4 - 6 days 7 - 10 days 11 or more days
School engagement	Indicator 5.2: How often does this child engage in school: cares about doing well in school and does required homework, age 6-17 years? ● How often does this child care about doing well in school? (Always, Usually, Sometimes, Never) ● How often does this child do all required homework? (Always, Usually, Sometimes, Never)	Always to both items Always or usually to one item or usually to both Sometimes or never to both or any item
Repeated grades	Indicator 5.3: Since starting kindergarten, has this child repeated any grades, age 6-17 years?	Yes No
Flourishing	Indicator 2.4: Is this child or adolescent flourishing, age 6-17 years? ● How often does this child show interest and curiosity in learning new things, age 6-17 years? (Always, Usually, Sometimes, Never) ● How often does this child stay calm and in control when faced with a challenge, age 6-17 years? (Always, Usually, Sometimes, Never) ● How often does this child work to finish tasks he or she starts, age 6-17 years? (Always, Usually, Sometimes, Never)	Met all flourishing items Did not meet all flourishing items

Table 2. National Survey of Children's Health questions related to risk and protective factors used for data analysis

Section	Variables	Questionnaire	Response Options
1. Access to Mental Health Care	Health insurance type	Indicator 3.3: What type of health insurance coverage, if any, did the child have at the time of the survey?	Public health insurance only Private health insurance only Public and private health insurance Currently uninsured

Section	Variables	Questionnaire	Response Options
1. Access to Mental Health Care	Health insurance adequacy	Indicator 3.4: Is this child's current insurance coverage usually/always adequate to meet their needs? The child's current insurance was considered adequate when the following criteria were met: (a) the child currently has health insurance coverage, AND (b) benefits usually or always meet child's needs, AND (c) the insurance usually or always allows the child to see needed providers, AND (d) the insurance either has no out-of-pocket expenses or out-of-pocket expenses are usually or always reasonable	Current insurance is adequate Current insurance is not adequate
1. Access to Mental Health Care	Preventive healthcare visits during the past 12 months	Indicator 4.1a: During the past 12 months, how many times did this child visit a doctor, nurse, or other health care professional to receive a preventive check-up? (A preventive check-up is when this child was not sick or injured, such as an annual or sports physical, or well-child visit).	One or more preventive visits No preventive visits
1. Access to Mental Health Care	Received needed treatment or counseling from a mental health professional during the past 12 months	Indicator 4.4: During the past 12 months, has this child received any treatment or counseling from a mental health professional, age 3-17 years?	Yes No, but needed to see a mental health professional No, did not need to see a mental health professional
1. Access to Mental Health Care	Difficulties receiving needed mental health care	Indicator 4.4a: How difficult was it to get the mental health treatment or counseling that this child needed?	Did not have difficulty Somewhat difficult Very difficult It was not possible to obtain care
1. Access to Mental Health Care	Medical home	Indicator 4.12: Did this child receive coordinated, ongoing, comprehensive care within a medical home?	Have a medical home Do not have a medical home
1. Access to Mental Health Care	Personal doctor or nurse	Indicator 4.12a: Do you have one or more persons you think of as this child's personal doctor or nurse?	Have a personal doctor or nurse Do not have a personal doctor or nurse
1. Access to Mental Health Care	Forgone mental health care	During the past 12 months, was there any time when this child needed mental health services but it was not received, age 3-17 years?	Did not receive needed mental health services Received all needed mental health services (or did not need mental health services)
1. Access to Mental Health Care	Reasons for forgone health care	Did the following reason contribute to this child not receiving needed health services: Because the child was not eligible? The service this child needed was not available in their area? There were problems getting an appointment?	Yes No

Section	Variables	Questionnaire	Response Options
		There were problems getting transportation or child care? The office was not open when the child needed care? Due to cost?	
1. Access to Mental Health Care	Preventive visit	National Performance Measure: Percent of adolescents, ages 12 through 17 years, with a preventive medical visit in the past year	One or more preventive medical visits No preventive medical visits
1. Access to Mental Health Care	Received needed mental health care	National Performance Measure: Percent of adolescents, ages 12 through 17 years, who receive needed mental health treatment or counseling	Received needed treatment Needed treatment, did not receive it
2. Safe and Supportive Environments	Bullying others	Indicator 2.1: During the past 12 months, how often did this child bully others, pick on them, or exclude them, age 6-17 years?	Never (in the past 12 months) 1-2 times (in the past 12 months) 1-2 times per month 1-2 times per week Almost every day
2. Safe and Supportive Environments	Being bullied	Indicator 2.2: During the past 12 months, how often was this child bullied, picked on, or excluded by other children, age 6-17 years?	Never (in the past 12 months) 1-2 times (in the past 12 months) 1-2 times per month 1-2 times per week Almost every day
2. Safe and Supportive Environments	Mother's mental health	Indicator 6.2: If this child's mother is a primary caregiver and lives in the household, in general, what is the status of mother's mental and emotional health?	Excellent or very good Good Fair or poor
2. Safe and Supportive Environments	Father's mental health	Indicator 6.2a: If this child's father is a primary caregiver and lives in the household, in general, what is the status of father's mental and emotional health?	Excellent or very good Good Fair or poor
2. Safe and Supportive Environments	Sharing ideas	Indicator 6.6: How well can you and this child share ideas or talk about things that really matter, age 6-17 years?	Very well Somewhat well Not very well or not very well at all
2. Safe and Supportive Environments	Family resilience	Indicator 6.12: Does this child live in a home where the family demonstrates qualities of resilience during difficult times? When your family faces problems, how often are you likely to talk together about what to do? (All of the time, Most of the time, Some or none of the time) When your family faces problems, how often are you likely to work together to solve the problems? (All of the time, Most of the time, Some or none of the time) When your family faces problems, how often are you likely to know we have strengths to draw on? (All of the time, Most of the time, Some or none of the time) When your family faces problems, how often are you likely	All or most of the time to 0-1 items All or most of the time to 2-3 items All or most of the time to all 4 items

Section	Variables	Questionnaire	Response Options
		to stay hopeful even in difficult times? (All of the time, Most of the time, Some or none of the time)	
2. Safe and Supportive Environments	Parental aggravation	Indicator 6.14: Does this child have parents who felt aggravated by parenting during the past month? During the past month, how often have you felt that this child is much harder to care for than most children his or her age? (Never, Rarely, Sometimes, Always or usually) During the past month, how often have you felt that this child does things that really bother you a lot? (Never, Rarely, Sometimes, Always or usually) During the past month, how often have you felt angry with this child? (Never, Rarely, Sometimes, Always or usually)	Parents usually/always feel aggravation from parenting Parents seldom or never feel aggravation from parenting
2. Safe and Supportive Environments	Emotional support for parenting	Indicator 6.15: During the past 12 months, was there someone that you could turn to for day-to-day emotional support with parenting or raising children? Did you receive emotional support from spouse or domestic partner? Did you receive emotional support from other family member or close friend? Did you receive emotional support from a health care provider? Did you receive emotional support from a place of worship or religious leader? Did you receive emotional support from advocacy or support group related to specific health condition? Did you receive emotional support from a peer support group? Did you receive emotional support from a counselor or other mental health professional?	Never Rarely Sometimes Always or usually
2. Safe and Supportive Environments	Parental coping	Indicator 6.16: How well do you think you are handling the day-to-day demands of raising children?	Very well Somewhat well Not very well or not very well at all
2. Safe and Supportive Environments	Supportive neighborhoods	Indicator 7.1: Does this child live in a supportive neighborhood?	Child lives in supportive neighborhood Does not live in supportive neighborhood
2. Safe and Supportive Environments	Safe neighborhoods	Indicator 7.2: Does this child live in a safe neighborhood?	Definitely agree Somewhat agree Somewhat or definitely disagree
2. Safe and Supportive Environments	Safe school	Indicator 7.3: Is this child safe at school, age 6-17 years?	Definitely agree Somewhat agree Somewhat or definitely disagree

Section	Variables	Questionnaire	Response Options
2. Safe and Supportive Environments	Neighborhood amenities	Indicator 7.4: Does this child live in a neighborhood that contains certain amenities -- parks, recreation centers, sidewalks or libraries?	Neighborhood does not contain any amenities Neighborhood contains 1 amenity Neighborhood contains 2 amenities Neighborhood contains 3 amenities Neighborhood contains all 4 amenities
2. Safe and Supportive Environments	Neighborhood amenities	In your neighborhood, are there sidewalks or walking paths?	Yes No
2. Safe and Supportive Environments	Neighborhood amenities	In your neighborhood, is there a park or playground?	Yes No
2. Safe and Supportive Environments	Neighborhood environment	Indicator 7.5: Does this child live in a neighborhood where there is litter or garbage on the street or sidewalk, poorly kept or rundown housing, or vandalism such as broken windows and graffiti?	Neighborhood does not have any detracting elements Neighborhood has 1 detracting element Neighborhood has 2 detracting elements Neighborhood has all 3 detracting elements
2. Safe and Supportive Environments	Neighborhood environment	In your neighborhood, is there litter or garbage on the street or sidewalk?	Yes No
2. Safe and Supportive Environments	Neighborhood environment	In your neighborhood, is there poorly kept or rundown housing?	Yes No
2. Safe and Supportive Environments	Neighborhood environment	In your neighborhood, is there vandalism such as broken windows or graffiti?	Yes No
3. Wellness Behaviors and Mental Health	Children who are active at least 60 minutes per day	Indicator 1.5: During the past week, on how many days did this child exercise, play a sport, or participate in physical activity for at least 60 minutes, age 6-17 years?	0 days 1-3 days 4-6 days Every day
3. Wellness Behaviors and Mental Health	Children participated in sports team or sport lessons	On most weekdays, how much time does this child spend playing outdoors, children age 6-17 years?	1 hour or less per day 2 hours per day 3 hours per day 4 or more hours per day

Section	Variables	Questionnaire	Response Options
3. Wellness Behaviors and Mental Health	Afterschool activities (including sports team, clubs, organized activities, and lessons, including music, dance, language, other arts)	Indicator 5.5: During the past 12 months, did this child participate in any organized activities or lessons, after school or on weekends, age 6-17 years?	Child participated in one or more extracurricular activities Child did not participate in extracurricular activities
3. Wellness Behaviors and Mental Health	Sports team participation	During the past 12 months, did this child participate in a sports team or did they take sports lessons after school or on weekends, age 6-17 years?	Yes No
3. Wellness Behaviors and Mental Health	Sleep	Indicator 6.25: During the past week, how many hours of sleep did this child get during an average day (count both nighttime sleep and naps) (0-5 years)/on most weeknights (6-17 years), age 4 months-17 years?	Child sleeps recommended age-appropriate hours Child sleeps less than recommended age-appropriate hours
3. Wellness Behaviors and Mental Health	Food security	Indicator 6.26: Which of these statements best describes your household's ability to afford the food you need during the past 12 months?	We could always afford to eat good nutritious meals We could always afford enough to eat but not always the kinds of food we should eat Sometimes we could not afford enough to eat Often we could not afford enough to eat
3. Wellness Behaviors and Mental Health	Food or cash assistance	Indicator 6.27: Does this child live in a household that received food or cash assistance at any time during the past 12 months, even for one month?	Did not receive food or cash assistance Received 1-2 types of assistance Received 3-5 types of assistance
3. Wellness Behaviors and Mental Health	Food or cash assistance	At any time during the past 12 months, even for one month, did anyone in your family receive Food Stamps or Supplemental Nutrition Assistance Program benefits (SNAP)?	Yes No
3. Wellness Behaviors and Mental Health	Food or cash assistance	At any time during the past 12 months, even for one month, did anyone in your family receive free or reduced-cost breakfasts or lunches at school?	Yes No
3. Wellness Behaviors and Mental Health	Physical activity	National Performance Measure: Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day	Physically active at least 60 minutes per day Not physically active at least 60 minutes per day
3. Wellness Behaviors and Mental Health	Screen time (excluding schoolwork)	Indicator 6.10: On most weekdays, about how much time does this child usually spend in front of a TV, computer, cellphone or other electronic device watching programs, playing games, accessing the internet or using social media, not including schoolwork?	Less than 1 hour per day 1 hour per day 2 hours per day 3 hours per day 4 or more hours per day

Section	Variables	Questionnaire	Response Options
4. Positive and Adverse Childhood Experiences	Volunteer	Indicator 5.7: During the past 12 months, did this child participate in any type of community service or volunteer work at school, church, or in the community, age 6-17 years?	Yes No
4. Positive and Adverse Childhood Experiences	Adult mentor	Indicator 5.9: Other than you or other adults in your home, is there at least one other adult in this child's school, neighborhood, or community who knows this child well and who they can rely on for advice or guidance, age 6-17 years?	Yes No
4. Positive and Adverse Childhood Experiences	Afterschool activities (including sports team, clubs, organized activities, and lessons, including music, dance, language, other arts)	Indicator 5.5: During the past 12 months, did this child participate in any organized activities or lessons, after school or on weekends, age 6-17 years?	Child participated in one or more extracurricular activities Child did not participate in extracurricular activities
4. Positive and Adverse Childhood Experiences	Household poverty	Since this child was born, how often has it been very hard to cover the basics, like food or housing, on your family's income?	Never hard to get by on family income Rarely hard to get by on family income Somewhat often hard to get by on family income Very often hard to get by on family income
4. Positive and Adverse Childhood Experiences	Parental divorce	To the best of your knowledge, has this child ever experienced the following: parent or guardian who got divorced or separated?	Yes No
4. Positive and Adverse Childhood Experiences	Parental death	To the best of your knowledge, has this child ever experienced the following: parent or guardian died?	Yes No
4. Positive and Adverse Childhood Experiences	Domestic violence	To the best of your knowledge, has this child ever experienced the following: saw or heard parents or adults slap, hit, kick, punch one another in the home?	Yes No
4. Positive and Adverse Childhood Experiences	Community violence	To the best of your knowledge, has this child ever experienced the following: was a victim of violence or witnessed violence in neighborhood?	Yes No
4. Positive and Adverse Childhood Experiences	Household mental illness	To the best of your knowledge, has this child ever experienced the following: lived with anyone who was mentally ill, suicidal, or severely depressed?	Yes No

Section	Variables	Questionnaire	Response Options
4. Positive and Adverse Childhood Experiences	Household alcohol/drug abuse	To the best of your knowledge, has this child ever experienced the following: lived with anyone who had a problem with alcohol or drugs?	Yes No
4. Positive and Adverse Childhood Experiences	Treated or judged unfairly due to race/ethnicity	To the best of your knowledge, has this child ever experienced the following: treated or judged unfairly because of his or her race or ethnic group?	Yes No
4. Positive and Adverse Childhood Experiences	Treated or judged unfairly due to health status	To the best of your knowledge, has this child ever experienced the following: treated or judged unfairly because of their health condition or disability?	Yes No
4. Positive and Adverse Childhood Experiences	Adverse Childhood Experiences (ACEs score)	Has this child experienced one or more household-based adverse childhood experiences?	No adverse childhood experiences One adverse childhood experience Two or more adverse childhood experiences

Table 3. Arizona Youth Risk Behavior Survey questions related to health status and school absenteeism used for data analysis

Variables	Questionnaire	Response Options
Self-harm	During the past 12 months, how many times did you do something to purposely hurt yourself without wanting to die, such as cutting or burning yourself on purpose?	A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or more times
Suicide consideration	During the past 12 months, did you ever seriously consider attempting suicide?	A. Yes B. No
Suicide plans	During the past 12 months, did you make a plan about how you would attempt suicide?	A. Yes B. No
Suicide attempts	During the past 12 months, how many times did you actually attempt suicide?	A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or more times
Currently smoking	During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?	A. I did not smoke cigarettes during the past 30 days B. Less than 1 cigarette per day C. 1 cigarette per day D. 2 to 5 cigarettes per day E. 6 to 10 cigarettes per day F. 11 to 20 cigarettes per day G. More than 20 cigarettes per day
Currently using an EVP	During the past 30 days, on how many days did you use an electronic vapor product?	A. 0 days B. 1 or 2 days C. 3 to 5 days D. 6 to 9 days E. 10 to 19 days F. 20 to 29 days G. All 30 days

Variables	Questionnaire	Response Options
Currently drinking	During the past 30 days, on how many days did you have at least one drink of alcohol?	A. 0 days B. 1 or 2 days C. 3 to 5 days D. 6 to 9 days E. 10 to 19 days F. 20 to 29 days G. All 30 days
Unhealthy weight control behaviors	During the past 30 days, did you try to lose weight or keep from gaining weight by going without eating for 24 hours or more; taking any diet pills, powders, or liquids; vomiting or taking laxatives; smoking cigarettes; or skipping meals?	A. Yes B. No
Absenteeism	During the past 30 days, on how many days did you not go to school because you were sick or in pain?	A. 0 days B. 1 day C. 2 days D. 3 days E. 4 days F. 5 days G. 6 to 9 days H. 10 or more days
Poor mental health	During the past 30 days, how often was your mental health not good? (Poor mental health includes stress, anxiety, and depression.)	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
Poor mental health during the COVID-19	During the COVID-19 pandemic, how often was your mental health not good? (Poor mental health includes stress, anxiety, and depression.)	A. Never B. Rarely C. Sometimes D. Most of the time E. Always

Table 4. Arizona Youth Risk Behavior Survey questions related to risk and protective factors used for data analysis

Section	Variables	Questionnaire	Response Options
2. Safe and Supportive Environments	Being bullied	During the past 12 months, have you ever been bullied on school property?	A. Yes B. No
2. Safe and Supportive Environments	Being bullied	During the past 12 months, have you ever been electronically bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.)	A. Yes B. No
2. Safe and Supportive Environments	Bullying others	During the past 12 months, have you ever electronically bullied someone? (Count bullying through texting, Instagram, Facebook, or other social media.)	A. Yes B. No
2. Safe and Supportive Environments & 4. Positive and Adverse Childhood Experiences	Adult mentor	During your life, how often have you felt that you were able to talk to an adult in your family or another caring adult about your feelings?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
2. Safe and Supportive Environments & 4. Positive and Adverse Childhood Experiences	Supportive friends	During your life, how often have you felt that you were able to talk to a friend about your feelings?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always

Section	Variables	Questionnaire	Response Options
2. Safe and Supportive Environments & 4. Positive and Adverse Childhood Experiences	School connectedness	Do you agree or disagree that you feel close to people at your school?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
3. Wellness Behaviors and Mental Health	Physical activity	During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)	A. 0 days B. 1 day C. 2 days D. 3 days E. 4 days F. 5 days G. 6 days H. 7 days
3. Wellness Behaviors and Mental Health	Screen time	On an average school day, how many hours do you spend in front of a TV, computer, smart phone, or other electronic device watching shows or videos, playing games, accessing the Internet, or using social media (also called "screen time")? (Do not count time spent doing schoolwork.)	A. Less than 1 hour per day B. 1 hour per day C. 2 hours per day D. 3 hours per day E. 4 hours per day F. 5 or more hours per day
3. Wellness Behaviors and Mental Health	Sleep time	On an average school night, how many hours of sleep do you get?	A. 4 or less hours B. 5 hours C. 6 hours D. 7 hours E. 8 hours F. 9 hours G. 10 or more hours
4. Positive and Adverse Childhood Experiences	Community violence	Have you ever seen someone get physically attacked, beaten, stabbed, or shot in your neighborhood?	A. Yes B. No
4. Positive and Adverse Childhood Experiences	Sexual abuse	Have you ever been physically forced to have sexual intercourse when you did not want to?	A. Yes B. No
4. Positive and Adverse Childhood Experiences	Sexual abuse	During the past 12 months, how many times did anyone force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)	A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or more times
4. Positive and Adverse Childhood Experiences	Sexual abuse	Has an adult or person at least 5 years older than you ever made you do sexual things that you did not want to do? (Count such things as kissing, touching, or being made to have sexual intercourse.)	A. Yes B. No
4. Positive and Adverse Childhood Experiences	Emotional abuse	During your life, how often has a parent or other adult in your home sworn at you, insulted you, or put you down?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
4. Positive and Adverse Childhood Experiences	Emotional abuse	During the past 12 months, how many times has a parent or other adult in your home sworn at you, insulted you, or put you down?	A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or more times

Section	Variables	Questionnaire	Response Options
4. Positive and Adverse Childhood Experiences	Physical abuse	During your life, how often has a parent or other adult in your home hit, beat, kicked, or physically hurt you in any way?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
4. Positive and Adverse Childhood Experiences	Physical abuse	During the past 12 months, how many times has a parent or other adult in your home hit, beat, kicked, or physically hurt you in any way?	A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or more times
4. Positive and Adverse Childhood Experiences	Domestic violence	During your life, how often have your parents or other adults in your home slapped, hit, kicked, punched, or beat each other up?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
4. Positive and Adverse Childhood Experiences	Treated badly or unfairly due to race/ethnicity	During your life, how often have you felt that you were treated badly or unfairly because of your race or ethnicity?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
4. Positive and Adverse Childhood Experiences	Physical neglect	During your life, how often has there been an adult in your household who tried hard to make sure your basic needs were met, such as looking after your safety and making sure you had clean clothes and enough to eat?	A. Never B. Rarely C. Sometimes D. Most of the time E. Always
4. Positive and Adverse Childhood Experiences	Household alcohol/drug abuse	Have you ever lived with someone who was having a problem with alcohol or drug use?	A. Yes B. No
4. Positive and Adverse Childhood Experiences	Household mental illness	Have you ever lived with someone who was depressed, mentally ill, or suicidal?	A. Yes B. No
4. Positive and Adverse Childhood Experiences	Household incarceration	Have you ever been separated from a parent or guardian because they went to jail, prison, or a detention center?	A. Yes B. No

Appendix 3: ADHS-led Resources for Adolescent Mental Health

Youth Mental Health First Aid (YMHFA)

YMHFA is a program that trains adults in youth-serving organizations to recognize symptoms of mental health issues and assist youth in accessing resources utilizing a five-step plan. AZDHS funds and manages its YMHFA programs through county health educators and community organizations. These YMHFA classes are free to attend and are a great resource for schools, community centers, etc. YMHFA also fulfills the yearly requirement of the Mitch Warnock Act to provide Suicide Prevention Training for school staff.

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*Alternatively, please contact health educators at your local county health department for more information.

Youth Councils

This initiative aims to establish and strengthen Youth Councils statewide to address critical adolescent public health issues, such as suicide prevention, bullying, healthy relationships, well visits, injury prevention, and dental care. These councils will empower young leaders to drive innovative solutions, contribute to state-level projects, and participate in the biennial Adolescent Health Conference. By focusing on local community challenges and fostering grassroots engagement, the program ensures interventions are tailored to each community's specific needs, promoting sustainable change.

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ADHS TOP PYD Pilot

The ADHS Teen Outreach Program® (TOP) Positive Youth Development Pilot Project allows State Lottery Abstinence and Abstinence Plus Contractors to implement TOP® lessons focused on Positive Youth Development (PYD), excluding sexual health-related topics. Unlike the federally guided Teen Pregnancy Prevention Program, which includes sexual health education, the lottery-funded programs omit these lessons. Utilizing evidence of TOP®'s effectiveness in reducing risky behaviors, the Adolescent Health Team permits the delivery of TOP® without sexual health content for state-funded contractors. TOP-certified facilitators selected 12 lessons emphasizing positive youth development principles.

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Youth Stigma Reduction Website

This website, hosted by ADHS and targeted to youth and schools, provides answers to commonly asked questions concerning mental health struggles, links to therapist and further help directories, and LGBTQ+ resources.

https://www.azdhs.gov/prevention/womens-childrens-health/injury-prevention/opioid-prevention/hope-heals/youth-stigma/index.php

Youth Community Resource Website

This website, designed for use by youth, families, and youth-serving individuals, shares links and contact information for a variety of resources organized by county and topic, including suicide prevention, physical health, mental health, homelessness, nutrition, etc.

https://www.azdhs.gov/prevention/womens-childrens-health/womens-health/teen-pregnancy-prevention/tpp-resources/

ADHS' Suicide Prevention Initiative

The website provides information on the Suicide Prevention program, AZ Suicide Reports, Action Plans, and Local and National Resources.

https://www.azdhs.gov/prevention/chronic-disease/suicide-prevention/index.php

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MustStopBullying.Org

The MustStopBullying.Org is an Anti-Bullying Campaign by ADHS that offers a resource to Parents, Students, and Schools that helps define bullying, action steps to approach individuals perpetuating bullying, and next action steps.

MustStopBullying.Org

ADHS' Disordered Eating Prevention

Known behavioral and social factors where prevention efforts can be focused include frequent dieting and disordered eating behaviors, dissatisfaction with body weight or shape, and being bullied about weight or looks. Schools can consider offering BE REAL's free Body Kind Curriculum (for high schoolers) and BE REAL's free Let's Eat! Nutrition Curriculum (for middle and high schoolers). Connect with ADHS to learn more about youth data and surveillance efforts, available prevention resources and tools, and upcoming training.

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Publication: "Unveiling Trends, Demographic Differences, and the Importance of Public Health Surveillance: Exploring Unhealthy Weight Control Behaviors Among Arizona Youth" (published in 2025)
https://www.azdhs.gov/documents/prevention/nutrition-physical-activity/suh-2025-unhealthy-weight-control-behaviors.pdf

ADHS' Adverse Childhood Experiences Website

The website presents surveillance dashboards (based on diverse population-based data sources), reports, infographics, and additional resources about childhood adversity in Arizona and its implications for the mental and physical health of the Arizona population.

azdhs.gov/aces

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Arizona Youth Risk Behavior Survey (YRBS) and School Health Profiles (Profiles) Website

The website offers a wide range of resources related to the Arizona YRBS and Profiles. These resources include past survey questionnaires, comprehensive reports detailing the survey findings, and visually engaging infographics that highlight key data points. Additionally, the site provides supplementary information to help users understand and utilize the YRBS and Profiles data effectively, supporting efforts to address and improve youth health behaviors in Arizona.

azdhs.gov/yrbs

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