Coconino Coalition for Children & Youth Prevention Plan & Needs Assessment

TABLE OF CONTENTS

INTRODUCTION

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This report sets the stage for a unique roadmap for using trauma-informed and adverse childhood experience knowledge as a prevention plan. The research field contains much information about the effects of childhood experience on later outcomes, but this report uniquely uses that knowledge, especially what is known about developing resiliency, and puts it to use in the prevention field.

Further, it recognizes that not all childhood traumas are happening in the home, many instances of childhood trauma stem from historical injustices and processes that further inequitable experience.

Though this report contains some specific information for one County in Arizona, the overall collection of research has global implications. Further, this puts a specific lens on the prevention of substance abuse, however, it should be understood that substance abuse would be only one community need that could be addressed. It is clearly shown that mitigating the effects of trauma in childhood will have positive health and community effects across a wide spectrum of needs including mental health costs and justice system issues.

Often, as a society, we are addressing human difficulties well after situations have compounded and become quite complex. Further, many times we are looking for "cures" that are only addressing the surface. For example, we might first notice someone in their 30's who arrives in an emergency room with a severe substance dependence, however, there is so much that could have been done in those

previous decades. Addressing issues later in life is quite costly and, though it is not without some amazing success stories, it does not necessarily get the gains society is seeking.

This report lays out the research, galvanizes the willingness, and gives the hope needed for all of us, from individuals to families, neighborhoods, school systems, human services, - the community at large- to find ways to help support the healthy development of the children in our community based on what we know about resiliency, asset development and protective factors. It also helps us understand the support that is needed for the people working in professions tasked with supporting the healing of trauma and it gives the flexibility to design supports at various levels and with different strategies.

We can no longer say- this is not my problem. The effects of childhood trauma have tremendous costs to society, and it is imperative that we develop the understanding of why and what can be done. We must begin developing ways in our own sphere of influence to help.

COCONINO COUNTY DESCRIPTION

Coconino County is located in Northern Arizona which "is primarily rural, with a mix of land ownership between private, public, and tribal groups;" with 12 of the 22 federally recognized tribes residing in the Northern part of the state (Sanderson, Williamson, Eaves et.al, 2017). Five of these tribes, are specifically within Coconino County, Navajo, Hopi, Paiute, Hualapai, and Havasupai. In total, about 50% of the land is public and tribal lands represent 38% of the county land make-up (Coconino County- Public Health, 2018).

Coconino County attracts world-wide visitation due to National Parks and Monuments, along with unique cultural exposures and environments. Flagstaff, AZ is a large population center for much of Northern Arizona including other counties besides Coconino. The County is Arizona's largest county at 18,608 square miles and contains 11,886,720 acres of land, and is the 2nd largest county in the continental country (Coconino County- Public Health, 2018). Thirty percent of Coconino residents are living in a rural environment (Sanderson, Williamson, Eaves et.al, 2017).

The county has a population of 138,639 individuals. Of these 49.2% are male and 50.8% are female. The racial make-up of the county is: 54% White, 26% American Indian/ Alaskan Native, 14% Hispanic, 2% Asian/ Pacific Islander, 1% Black and 3% other. Forty-two percent of the population is under 25 years old (Coconino County- Public Health, 2018).

Twenty-one percent of county residents are living below the federal poverty line with one in seven lacking health insurance. Thirty-one percent of residents do not have education past high school with 10% of the population lacking a high school diploma (Coconino County- Public Health, 2018).

The First Things First (FTF) Assessment of Coconino Region (which adds to and removes some of the areas of the county) has determined that there are 9,652 children who are five and younger, 33% of them are living in poverty and 23% of the region is in poverty. Fifty-two percent of families in the region who have children live below 185 percent of the Federal Poverty Level, and FTF notes, that this number is 53% for Coconino County.

Coconino Coalition for Children & Youth Prevention Plan & Needs Assessment

FTF notes that the medium income for Coconino County is $59,216, but that there are large differences depending on experience. For example, 40% of individuals with the Havasupai Tribe are living in poverty. In this assessment they note that 44% of children in the region are living with single parents which is higher than the state average of 38%, but in Coconino County married families make on average more annually than single parent families. Further, single father households make 46% higher earnings than single female households on average (FTF, 2018).

KEY DATA FINDINGS

Introduction
Below will be the key data related to Arizona and Coconino County substance use, as well as, local data concerning risk and protective factors for Coconino youth. Additionally, national research and information is included, where appropriate, in order to understand known links between childhood adversity and later substance use. Further, national data helps provide the context for a focus on protective factors that help insulate against traumatic and negative childhood experiences.

General Substance Use Data for Coconino County
The below data demonstrates that substance use and abuse is a significant issue in Coconino County.

In 2016, in Coconino County, the rate of emergency room visits per 10,000 for **alcohol** abuse were 58.6. This rate was substantially higher than any county in the state with a range of 6.6-39.2 for the other counties. The State average was 15.6. The report does acknowledge that 4/15 visits are non-residents including adjacent counties. In 2016, Native American/Alaskan Natives had a 5.3 times greater likelihood of being hospitalized for alcohol than non-Hispanic whites. Additionally, "73% of unique hospital visits primarily caused by alcohol were never married" (Coconino Injuries, 2016).

Between 2012 and 2016 deaths from alcohol in the county more than doubled leading to Coconino County having a 2.8 times greater death rate from alcohol than Arizona and 5.2 times greater than the Country. They further note that 1/3 deaths in the county were from non-residents. "Males are 3.5 times more likely to die from alcohol than females" (Coconino Injuries, 2016).

In 2016, in Coconino County, the rate of emergency room visits per 10,000 for **drug** abuse were 28.8. This rate was lower than many of the counties in the state with a range of 17.1-49.9 for the other counties. The State average was 37.3. The report notes that 1/4 visits were non-residents including adjacent counties. The report notes, "Non-Hispanic Whites had multiple drug-caused hospital visits at a rate 1.4 times greater than that of American Indian/Alaskan Natives" (Coconino Injuries, 2016).

The medical examiner's office noted that, "2018 showed an increase in accidental overdoses due to opiates. The most common drugs contributing to death were ethanol, methamphetamine, fentanyl and

heroin. In 2018, there were 11 single opiate overdoses, 7 of which were due to fentanyl (an abrupt increase from previous years)" (Coconino Medical Examiner, 2018).

During 2010-2016, opioids represented 15% of total drug and alcohol deaths with 18% being other drugs and 67% due to alcohol. While deaths from opioids have not increased during this time period (49 deaths of which- 88% prescriptions/ 12% heroine), during this same time period there has been a 285% increase in hospital visits concerning opioids. (Coconino Opioid, 2017).

Concerning opioid related hospital visits all groups in the county are seeing increases during 2011-2015 "however, it increased most significantly among Native American/Alaska Native residents, and especially among males" The percent of increase is as follows: White Non-Hispanic female 187%, male 147% Native American/Alaska Native female 316%, male 653% Hispanic/Latino female 198% Male, 184%" (Coconino Opioid, 2017).

In two focus groups conducted by CCC&Y on 11/21/19 and 11/22/19, in relation to Self-Healing Communities, 18/19 and 16/21 individuals respectively have personal experience with someone being impacted by substance abuse.

Youth Specific Substance Use Data for Coconino County
It is crucial to understand the scope of youth substance use in Coconino County as the Centers for Disease Control and Prevention notes, "The majority of adults who meet the criteria for having a substance use disorder started using substances during their teen and young adult years (CDC, 2019)."

The following information concerns youth substance use in Coconino County. Youth are most likely to gain alcohol through parties, giving someone money to purchase, from someone under 21, from a parent or guardian, stealing from home, and from someone over 21 not-related. While they are overwhelmingly getting marijuana from a friend, youth also reported high levels of access from parties, school, home and family/relatives, and persons with a medical marijuana card. The highest access point for prescription medications for youth was at home.

In Grade 8, while the more common substances in use by county residents for life-time use e-cigarettes (30%), cigarettes (14%), and alcohol (27.6%) have all declined since 2016, Marijuana (18.4) hallucinogens (5%), inhalants (5.4%), prescription pain relievers (7.1%), prescription stimulants (3.1%), prescription sedatives (3.4%) and over the counter drugs (5.5%) all have increased since 2016. Special note Marijuana concentrates (15.2%) was not asked about in previous years.

In Grade 10, most substances show increase use from the prior years with the exception of cigarettes and prescription stimulants decreasing for county residents for life-time use e-cigarettes (44.1%), cigarettes (33.3%), and alcohol (60%), Marijuana (37.3%), hallucinogens (8.3%), inhalants (13.6%), prescription pain relievers (18.3%), prescription stimulants (3.4%), prescription sedatives (6.9%) and over the counter drugs (8.5%) all have increased since 2016. Special note Marijuana concentrates (30.5%) was not asked about in previous years.

In Grade 12, there is a mix depending on substance between decline, staying the same and increase for county residents for life-time use. The 2018 rates are as follows e-cigarettes (65.3%), cigarettes (48.7%), and alcohol (62.3%), Marijuana (61%), hallucinogens (18.2%), inhalants (6.5%), prescription pain relievers (16.9%), prescription stimulants (11.7%), prescription sedatives (11.7%) and over the counter

drugs (13%). Special note Marijuana concentrates (41.6%) was not asked about in previous years (Arizona Youth Survey, 2018).

Additional total substance use percentages for all grades include cocaine (1.8%), methamphetamines (.4%), heroin (.5%), ecstasy (1.7%), steroids (1.5%), and synthetic drugs (1.4%).

Adverse Childhood Experiences
The Centers for Disease Control and Prevention note that adverse childhood experiences (ACEs) "are linked to chronic health problems, mental health, substance misuse, and reduced education and occupational achievement (2019).

In his book, Gabor Mate´, MD discusses the research on brain development and brain activity so it is understood, "Brain development in the uterus and during childhood is the single most important biological factor in determining whether or not a person will be predisposed to substance dependence and to addictive behaviors of any sort, whether drug-related or not" (2010, p.188). He reports that there is a "seven to ten times greater risk of substance abuse" for persons with 5+ ACEs (p. 202).

Dr. Mate´ further goes on to discuss the original ACE study and quotes investigator Dr. Felitti, "The basic cause of addiction is predominantly experience-dependent during childhood, and not substance-dependent" (2010, p.189).

Throughout the book Dr. Mate´ reviews the ways the brain structures and neurotransmitters are predisposed to have profound effects on those who have had childhood experiences of trauma compared to those who have not. He notes "extraordinarily high percentages of childhood trauma (p.201)" in addicted individuals and that "consistent emotional nurturing" is "absolutely essential to optimal human brain development" (p.193).

In a quick summary, some of the reasons for this connection are the development of the human stress response and the use of substances to control that stress (p.207); children who receive high amounts of stress in childhood have a lower start point and therefore stress more easily (p.206). Additionally, "stress also diminishes the activity of dopamine receptors" (p.208) and it is well established that those predisposed to substance abuse and addiction problems often have less "receptors to begin with" (p.151). Further, Dr. Mate´ notes four areas of the brain where brain development is influenced through the environment and in detail describes the mechanisms that contribute to substance use and abuse which also includes diminished "opioid receptor activity" (p.165) among other extensive biological descriptions.

Arizona children have significantly more ACE exposure (2+ ACEs) than the national average. "In Arizona children ages 12 to 17, 44.4% have experienced two or more ACEs, compared to the national average of 30.5%. As children age, the number of those who have experienced two or more ACEs increases. It is estimated that nearly 70,000 Arizona children have more than five ACEs" (ACE Consortium, 2019).

Risks

1,210 Coconino youth have 5 or more ACES.

70.5% of Coconino 10th graders had a low commitment to their school.

50.6% of Coconino 8th graders had witnessed another punched, kicked, choked or beaten up

In Coconino only 23% of students passed 8th grade math AZMERIT.

Coconino County 13.4 per 1,000 youth in juvenile detention compared to the State average 4.5 per 1,000.

ACE understanding is crucial for discussing substance abuse prevention as it dramatically increases substance use risk.

Substance	0 ACES	1-3 ACES	7+ ACES
Rate of Smoking	1 in 16	1 in 9	1 in 6
Rate of Alcohol	1 in 69	1 in 9	1 in 6
Rate of IV Drug	1 in 480	1 in 43	1 in 30

Rate of Substance use by level of ACE exposure (ACE Consortium, 2019)

In Coconino County 3.81% of youth or (1210 youth) have experienced 5 or more ACES (ACE Consortium, 2019). As troubling as this number is, it does not include children and families who have exposure to trauma through historical avenues, such as colonization, and does not take into account exposures through the community such as racism and gang violence.

"For many youth in our country, the promise of adolescence is severely curtailed by economic, social, and structural disadvantage and, in all too many cases, by racism, bias, and discrimination. These potent societal determinants shape adolescents' life trajectories in multiple ways" (National Academies, 2019, p.95).

Introduction to Risk and Protective Factors
As a society we know that Adverse Childhood Experiences increase the risk of substance abuse later in life among many other negative outcomes. Additionally, we recognize that historical traumas, racism and inequities have created systems of further trauma for many of our marginalized populations. As a society, we have systems of education, child welfare and criminal justice that often times widen inequities and further the harm of initial exposures to trauma. Taking this entire circle into consideration this assessment will look at protective and risk factors, as well as, explore data related to the systems in Coconino County.

In the decades-long longitudinal study began in 1955 on Kauai, Hawaii, researchers found that adversity (prenatal through postnatal) can cause negative outcomes later in life. However, they identified protective factors that help buffer against this adversity and may have more long-term impact than any one risk factor. They identified pathways for how resiliency is developed and the protection it offered youth later in adulthood (Werner & Smith, 1992).

The three major categories the researchers noted were 1. internal disposition factors as characteristics such as intelligence and temperament can lead to positive responses from those around the child, 2. connections with family and other caring adults and 3. External groups or systems "which reward competence and provided them with a sense of coherence" (Werner & Smith, 1992, p.192).

In *The Promise of Adolescence,* the National Academies of Sciences, Engineering and Math note that epigenetics creates an understanding that what you are seeing today was created from previous experience, and therefore, allows for continuous opportunity to interject new experiences that promote healing. They further note that it is not just young childhood when change is possible but that adolescence is an important time for brain development due to plasticity (National Academies, 2019, P.78). They discuss protective and risk factors and mention "positive school environments" as an example to assist with keeping youth on positive trajectories (p.80).

Coconino Coalition for Children & Youth Prevention Plan & Needs Assessment

In other words, "The relative contributions of risks and protective factors during childhood will therefore affect the likelihood of a flourishing trajectory, but an epigenetic life-course perspective also emphasizes that resilience and recovery are possible throughout the life course and especially during adolescence" (National Academy, 2019 p.80).

IDENTIFYING AND PROMOTING RESILIENCE AND STRENGTH AMONG DISADVANTAGED AND AT-RISK YOUTH, WHILE ENCOURAGING THE DEVELOPMENT OF FURTHER PROTECTIVE FACTORS, HOLDS PROMISE FOR ENHANCING OPPORTUNITY FOR ALL ADOLESCENTS.

PROMISE OF ADOLECENSE, 2019, P.137

It is clear that preventing childhood trauma is a very important step, but it is hopeful that there is much opportunity to build protective factors and promote resilience. As noted by the academies, programs that support mindfulness and counter-act loneliness, are examples of working with neuroplasticity in adolescence (National Academies, 2019, p. 93). Further, "Adolescents are growing and learning within their environments, and each experience is an opportunity for adolescents to flourish and thrive […] No child is without the potential to succeed. From a developmental perspective, adolescence is a time of promise, resilience, hope, and opportunity for all youth" (National Academies, 2019, p. 94).

Put another way, the CDC notes that we often address child and youth health by specific interventions to target specific behaviors. "However, results from a growing number of studies suggest that greater health impact might be achieved by also enhancing protective factors that help children and adolescents avoid multiple behaviors that place them at risk for adverse health and educational outcomes. Enhancing protective factors also might buffer children and adolescents from the potentially harmful effects of negative situations and events, such exposure to violence" (CDC, 2009).

It also should be noted that Dr. Mate´ repeatedly notes a connection between loneliness and substance abuse, as well as feelings of social awkwardness (p.44 and p.208). Substances are often used to self-medicate symptoms of being disconnected from social connections. He further notes the studies involving "rat park" that demonstrated the high use of substances typically seen by isolated rats were not shown when rats had engaging activities and had other rats to socialize with (p.145).

The Self-Healing Communities model gives us a framework to engage the various communities within Coconino County. It places a focus on being NEAR-informed (neuroscience, epigenetics, ACES, and resiliency), while promoting community voice and action. An exciting and innovative component of this model is the acceptance of chaos, quantum, and relativity theories to help explore non-linear solutions and expand the avenues that we think about, respond to and connect to the issues that are impacting our communities.

This model encourages community voice and leadership expansion, and therefore, removes the focus from solely bringing programs into a community, but instead helps uncover where equity is missing. It empowers the community to identify their own strengths and needs and to develop solutions that make sense for their own community. Further they showed great improvement for many social determinants of health in the communities of Washington state where this was studied. (Porter, Martin & Anda, 2016).

Further, in *The Promise of* Adolescence, the National Academies consensus recommendations include "trauma-informed approaches preparing adults serving youth in youth- serving systems to address differential exposure to violence and trauma among youth" (2019, p.137).

Youth Risk and Safety Factors in Coconino County
The Search Institute has identified 40 Developmental Assets that help protect youth from negative outcomes later in life. The Search Institute's research shows that youth who have 31-40 of the assets engage in 0.7 risky behaviors (such as alcohol) and have 6.1 thriving indicators (such as doing well in school), compared to youth who have 0-10 assets, who engage in 7.7 risky behaviors and have only 2.7 thriving indicators. The assets range from external assets, such as family support and caring school climate, to internal assets, such as school engagement and responsibility (Search Institute, 1997).

The below risk factors measured in the Arizona youth survey are being highlighted in this report for several reasons. All three represent high levels of risk across all grades. Low perceived risk of substance use is the highest risk factor for 8th grade, as well as 12th grade. The good news is that this risk factor seems to have declined in both 8th and 10th grade in the last two years.

However, the risk factor- low commitment to school- increases dramatically for 10th grade and is the highest risk factor for that level. Combined with low academic success the school risk factors make up the highest risk for 10th grade. Of additional concern, these 10th grade school risk factors appear to be increasing from both 2014 and 2016 (Arizona Youth Survey, 2018).

"School connectedness—the belief held by students that adults and peers in the school care about their learning as well as about them as individuals—is an important protective factor. Research has shown that young people who feel connected to their school are less likely to engage in many risk behaviors, including early sexual initiation, alcohol, tobacco, and other drug use, and violence and gang involvement (CDC, 2019)."

Selected Risk Factors for Coconino County from the 2018 Arizona Youth Survey

Grade Level	Academic Failure	Low Commitment to School	Low Perceived Risk of Substance Use
8th	43.1 %	44.8%	54.7%
10th	66.1%	70.5%	60.3%
12th	45.3%	48.7%	78.7%

Percentage of students in Coconino County experiencing these risk factors (AZ Youth Survey, 2018)

These risk factors also specifically can trace back to these particular assets identified by the Search Institute.
> Achievement motivation—Young person is motivated to do well in school.
> School engagement—Young person is actively engaged in learning.
> Bonding to school—Young person cares about their school. (Search Institute, 1997)

Additionally, the CDC notes that "Students who feel connected to their school are also more likely to have better academic achievements including higher grades and test scores, have better school attendance, and stay in school longer." Further the CDC states, "School connectedness was found to be the strongest protective factor for both boys and girls to decrease substance use, school absenteeism,

early sexual initiation, violence, and risk of unintentional injury (e.g., drinking and driving, not wearing seat belts) (CDC, 2009)."

In addition to specific risk factors, the Arizona Youth Survey asks questions related to problems at school, as well as, exposure to violence. Below represents some of the issues that are being focused on in this report as The Search Institute notes "Safety—Young person feels safe at home, school, and in the neighborhood" as one of their 40 specific developmental assets which again are protective against many negative risk factors.

Safety at school and violence in the community

Grade Level	Victim of Bullying at school	Witness Bullying at school	Skipped School Because felt unsafe	Was punched, kicked, choked or beaten up	Witnessed other punched, kicked, choked or beaten up
8th	37.9	51.2	25.8	27.1	56.3
10th	28.1	33.9	12.1	10.2	28.8
12th	25.3	29.3	11.8	12.3	34.2

Percentage of students reporting these experiences (Arizona Youth Survey, 2018)

Education Data in Coconino County
In terms of education in Coconino County, nine Arizona counties scored higher for 3rd grade children passing the AzMERIT, 2018 English Language Arts test. In Coconino county 37% of students passed and the state average was 44%. In regards to 8th grade math, Coconino was the 2nd lowest scoring county in the state with only 23% of students passing. The state average was 41%. (Children's Action Alliance, 2019).

In Coconino County, 11.6% of respondents to the Arizona Youth Survey report having been suspended from school (2018).

Researchers have noted many reasons why school discipline measures such as suspension and expulsion can potentially increase juvenile arrest and detention rates (National Academies, 2019, p.105). "Much of the existing research on the "school-to- prison pipeline" suggests that the disparities in school discipline by race and ethnicity are responsible in part for the disparities seen in juvenile justice involvement, including the fact that Black youth are more than twice as likely as Whites to be arrested as juveniles (5.4% compared to 2.1%)" (National Academies, 2019, p.104).

In, *The Promise of Adolescence,* there is much description about the factors that can lead to discrepancies in treatment, as well as, suggestions for promoting the best environments in school. They note biases and differing expectations based on factors such as race as problematic (National Academies, 2019, p.132). They also note that given the impact trauma has, trauma-informed training is important for those "who encounter adolescents routinely understand how trauma may be manifested in the particular context of the encounters" (National Academies, 2019, p.140). Further, they again note benefits to including mindfulness, meditation and self-regulation strategies (National Academies, 2019, p.184).

Additionally, the report focuses on the discipline processes in schools and encourages systems that show respect, are not punitive, are culturally responsive and demonstrate equity and conflict resolution.

Coconino Coalition for Children & Youth Prevention Plan & Needs Assessment

"A starkly punitive disciplinary orientation is problematic for all youth, but it is all the more harmful when it is administered with an unequal hand". Such as youth of color or the LGBTQ+ community (National Academies, 2019 P. 192). It is important to note, that even though national research shows that black students are more likely to be suspended, there is no evidence of worse behavior (p. 192).

The CDC also recommends, "Use effective classroom management and teaching methods to foster a positive learning environment" and calls for the provision of "professional development and support for teachers and other school staff to enable them to meet the diverse cognitive, emotional, and social needs of children and adolescents". (CDC, 2019)

Of the alcohol related deaths between 2012-2016 in Coconino County, 57.2% of individuals did not have post-secondary education, of these, 21.4% did not have a high school diploma. For individuals who died of drug-related causes 56% did not have post-secondary education, of these 15.5% did not graduate high school. (Coconino Injuries, 2016).

On a positive note when compared to the State, Coconino county 4-year graduation rates are at 81%, higher than the 80% statewide average and the percentage of students not working or in school is the 2nd lowest in the state at 5%. (Children's Action Alliance, 2019).

Juvenile Justice and Dependency Data for Coconino County
This report will also address data related to juvenile justice and child welfare issues as children in one or both systems are often facing much adversity with high risk for negative outcomes later in life. As noted in *The Promise of Adolescence*, "Adolescents that engage in status offenses often have higher rates of mental health and substance abuse disorders, and abuse and neglect during childhood have also been found to be highly predictive of committing status offenses" (p.130) and "adolescents involved in foster care had more disruptive behavior disorder symptoms, suicide ideation and suicide attempts, and depression and anxiety symptoms, as well as more past-year substance use disorders, than those never placed in foster care" (p.275).

Children's Action Alliance reports that in 2016 Coconino County had the 3rd highest rate of children in juvenile detention by county with a rate of 13.4 per 1,000. The overall county rates range from 0 to 14.3 with the State average being 4.5 per 1,000 (2019).

Coconino County Juvenile Court Services had 859 delinquency referrals, 1430 offenses, 267 diversions, 148 youth on probation, 56 on intensive probation, and 61 of their youth required out of home placement during the CY 2018 year. The court is reporting that a higher percent of their youth have serious drug and alcohol abuse challenges. They note specifically meth, cocaine and heroin in the report.

The Court further reports that with youth having four or more detentions; 88% were exposed to highly traumatic events and 80% had out of home placement histories. In FY20 the court is reporting a significant increase to dependencies for Coconino County up from a low of 76 minors/53 petitions in FY14 to 315 minors/188 petitions in FY20. This is also up from the previous year, FY19 of 218 minors/ 139 petitions (Coconino Juvenile, 2019).

While preventing children from needing to enter the child welfare system or the juvenile justice system should be continued goals it is important to remember that protective factors again are helpful to youth

even despite these challenges. The following recommendation was taken from *The Promise of Adolescence* "promote broad uptake by the states of federal programs that promote resilience and positive outcomes for adolescents involved in the child welfare system" (National Academies, 2019, P. 289).

Further, understanding the risk and protective factors discussed thus far it is clear why this would be additional recommendations, "In light of the research evidence on the positive benefits of developing and maintaining a positive relationship with an adult (a family member, caregiver, mentor, or social support provider), services and programs should ensure that every system-involved youth is connected with a qualified and caring adult with ready access to advice and support from the responsible agency. Adolescents in the child welfare system also benefit when they remain engaged in the education system" (National Academies, 2019 p.290).

Youth Protective Factors
Concerning youth reporting protective factors, the Arizona Youth Survey notes that 67.3% of respondents have high protection, meaning they report having four or more protective factors of the 10 options listed in the survey. The lowest rated protective factors relate to prosocial involvement. The areas scoring the lowest overall for the county would be rewards for prosocial involvement at the community- level as only 25.4% of youth reported having this and pro-social involvement at the peer and individual level as only 38.8% of youth report this. Lastly, while 67.1% of youth are reporting opportunities for pro-social involvement at school only 48.9% of youth report rewards for this at the school level.

However, this is solely counting the protective factor categories noted in the Arizona Youth Survey. Looking at the Search Institute's 40 Developmental Assets as well as the Protective Factors identified in the Kauai longitudinal study- Coconino County has the potential to be growing youth assets and protective factors on a multitude of fronts. Additionally, when the level of risk for the county is taken into account, it is imperative that access to assets and protective factors be expanded.

Additional assets from the Search Institute not mentioned so far in the report but are applicable given what the data for the county is showing include:

Other adult relationships—Young person receives support from three or more nonparent adults.

Caring neighborhood—Young person experiences caring neighbors

Youth as resources—Young people are given useful roles in the community

Community values youth—Young person perceives that adults in the community value youth.

Equality and social justice—Young person places a high value on promoting equality and
reducing hunger and poverty.

Cultural competence—Young person has knowledge of and comfort with people of different
cultural/racial/ethnic backgrounds.

Personal power—Young person feels they have control over "things that happen to me."

Assets Make a Difference

Youth with 31-40 Assets

0.7 risky behaviors (such as alcohol) and have 6.1 thriving indicators (such as doing well in school),

Youth with 0-10 assets

7.7 risky behaviors and have only 2.7 thriving indicators.

(Search Institute, 1997)

January, 2020

> Self-esteem—Young person reports having a high self-esteem.
> Sense of purpose—Young person reports that "my life has a purpose."
> Positive view of personal future—Young person is optimistic about their personal future.
> (Search Institute, 1997)

Werner and Smith documented "how a chain of protective factors, linked across time, afforded vulnerable children and teenagers an escape from adversity and contributed to positive outcomes in their adult lives" (1992, p. 198). From the connections and responses children receive in society to their involvement in activities that are demonstrating their self-worth and value this becomes a life-long building upon of purpose and sense-of-self.

The idea of self-identity is also brought up in *The Promise of Adolescence* and includes important discoveries of self, social group identities and leads to exploration of future possibilities. "Both identity and sense of purpose develop in the context of exploration and affirmation" (National Academies, 2019, p.169).

From CCC&Y surveys, our 11/21/19 and 11/22/19 focus group attendees rated all of these high:
> -Raising youth resiliency will help address future substance abuse rates in the county
> -Childhood and historical trauma are key factors in later substance abuse in the county
> -I believe that social isolation, social anxiety, and other factors leading to being disconnected are
> problems in the county
> -Self-Healing communities has the potential to decrease substance abuse rates in the County

NEEDS ASSESSMENT CONCLUSIONS

It is clear from the data that Coconino County has high need to address substance use and abuse. Additionally, as evidenced by multiple sources, the risks our youth are facing, including adverse childhood experiences, are extensive. The great news is that the research is clear that protective factors, asset development and self-healing community model are excellent pathways to address the root-cause of substance abuse in youth.

From survey and interview it is clear that there are multiple programs in the county working to prevent, treat and respond to substance abuse problems in the community. Some of those include the behavioral health homes, as well as, individual prevention contracts such as training in schools and home visiting programs. However, there is a high need to utilize services and this can cause capacity issues in addition to the known challenges of treating active substance use disorders.

However, a missing prevention link would be a highly coordinated effort to promote childhood and youth resiliency through protective factors and assets while using strategies from Self-Healing Communities, including being NEAR- informed and leadership expansion, to promote the wide healing necessary to address substance use and abuse. This effort, is not only shown to be effective through a wide-range of research, it would also help prevent at the source hopefully stemming off some the eventual needs for substance abuse treatment in our adult population.

There is need in our county to:
> -Develop connections, decrease isolation and promote positive self-identities.
> -Increase Trauma-Informed, ACEs, Behavior Management and Resiliency awareness and

training across communities but particularly in educational settings
-Increase youth exposure and access to the 40 assets especially youth connection to school
-Increase youth positive experience especially in the education environment but also through activities and groups
-Prevention of childhood trauma including child abuse prevention strategies
-Ensuring youth understand the risk associated with substances
-Ensure youth have access to alternate coping strategies such as mindfulness
-Ensure adults understand to remove access to substances for youth

It is also recommended that CCC&Y work with coalition partners to ensure cooperation, support and resources across this work including assisting with outreach and trauma-informed education as needed. This would especially include self-care, professional development, organizational and community culture advancement, and professional training with a goal of development but especially retention.

During CCC&Y's November focus groups, multiple individuals, from both groups, stressed the need to have self-care and support to staff and agencies as a crucial step in moving toward being a self-healing community, in addition to, being able to do the best work for intervention and prevention.

As shown below, retention is crucial for best outcomes for children, and there is much research about how to support staff and increase retention.

As a part of their work Strokin-Goltzman, Kollar and Trinkle site Flower, McDonald and Sumski's 2005 study that showed children were 60% less likely to receive permanency if they had more than one worker. They note that Shapiro found in 1976 youth were more likely to be discharged by experienced staff, and Gansle and Ellett found in 2002 that when there is high turnover, experienced workers are rare. They additionally discussed the 1990 work of George to note that foster children have significant increases of discharge from foster care within two years if there is an "investment in workforce standards--including stability and experience of caseworkers, low caseloads, and high frequencies of contact with youths…"(Strokin-Goltzman, Kollar & Trinkle, 2010).

Given the importance of staff support, development and retention, the below studies show that it is possible, through a wide variety of means, to impact culture in the work place and increase retention. The research is given, not to support one model vs another, but to show that retention and cultural shift are possible through concerted effort.

Glisson, Dukes & Green found that organizational practices can decrease turnover while improving the work environment. They specifically studied the ARC organizational method and compared that to a control group that did not have the intervention. They studied 235 caseworkers from 26 teams. Their study crossed both rural and urban environments. In the one year follow up the control group had a turnover rate of 65% while the group with the intervention had turnover of 39%. There was also reported improvement in climate factors for the workers in the intervention group (2006).

Data retrieved from Glisson, Dukes & Green (2006)
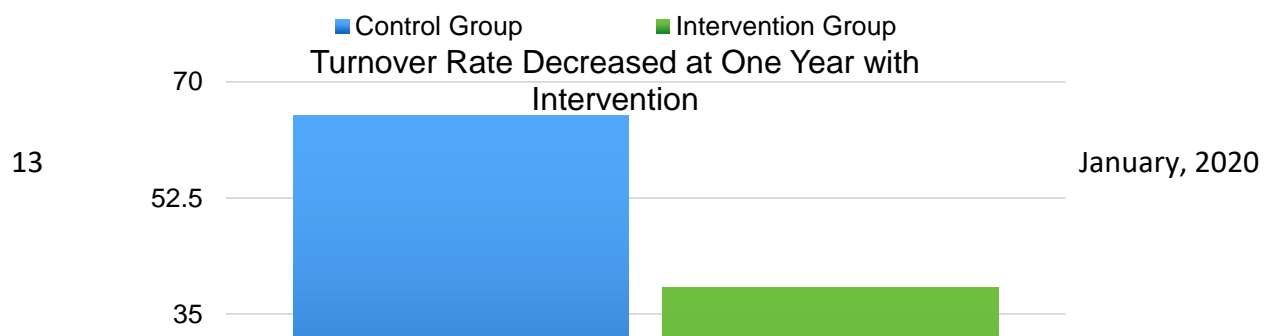
What is important about this study is that 26 different teams were represented, as well as, both rural and urban environments. This diversity of sampling helps to protect against unique factors on a given team or environment impacting the results of the study.

In this next study by Strolin-Goltzman, a Design Team (DT) model was utilized, made of employees, to determine problems that cause turnover. DT trained facilitators helped the teams arrive at solutions. The work is data driven and then used to develop strategies. For the study, data was collected at two different time periods from agencies across 12 counties. They were able to demonstrate no significant difference between the control and study group prior to the study. They measured several different areas in the course of the study. For burnout, role clarity, professional resources and training, agency commitment, job satisfaction and intention to leave there was a significant improvement for the study group over the control group (2010).

Again, sampling across counties allows for multiple environments in which to test the hypothesis'. The researchers were able to demonstrate through charts and data that the control group and study group were not significantly different prior to the intervention adding weight to the conclusion. A large problem with the study, recognized by the author, is that a large number of staff left the agency prior to final testing. It is not possible to know how they were impacted (Strolin-Goltzman, 2010).

In this next study the researchers were able to demonstrate a link between the work culture impacting the climate which leads to staff attitudes where "positive attitudes significantly predicted lower turnover at one year" (Aarons & Sawitzky, 2006, p. 297). Through the use of multiple surveys and data analysis the authors tested 322 employees of public-sector mental-health programs to reach these results. This is important as they were able to demonstrate that both culture and climate can impact staff attitudes. While culture may be more difficult to make large adjustments to initially, it can be adjusted, but also improving climate can assist with improving staff attitudes (Aarons & Sawitzky, 2006).

As the main focus of this study was the interplay between climate and culture, it leaves open room for other areas and ways that employee attitudes can be affected (Aarons & Sawitzky, 2006).   However, because of this self-identified area of need for further exploration by its authors, there is also strength. As these areas were the focus, and not factors such as pay, it demonstrates for leadership the importance of the organization in retaining staff.

In Kim and Stoner's study they showed a link between job stress and turnover in social workers. They studied 346 social workers through the use of questionnaires and scales. Based on their findings they made the following recommendation, "Given the stressful situations experienced in most social work positions, the major implication of this research is that jobs should be redesigned so that levels of job autonomy and social support are increased in an effort to prevent burnout and retain workers (Dollard et al., 2000; Johnson & Hall, 1988)" (2008, p. 21).

This study randomly selected 1500 individuals from registration rolls of California Social Workers. They ultimately utilized 346 of the 529 respondents' answers as incomplete, retired and private practice individuals were eliminated (Kim and Stoner, 2008). The sample is limited to California and those who responded to the survey. However, it could be tested amongst other samples of social workers. This study also adds important information about the environment in which social workers operate and its effect on retention.

Conclusion

After reviewing much research related to substance abuse prevention, it is clear there is much work to be done in Coconino County. The focus of CCC&Y should be to lead movement related to trauma prevention and support, resiliency building through community development, and support to all responders in order to have a well-coordinated effort across multiple systems and agencies; leading towards healing at the community level with decreasing substance use as the end goal.

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