Situational Assessment:
Youth Substance Use Disorders

October 2015

Version 2

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Overview

Background

Substance use disorders in our society have exacted an enormous social and economic toll in communities throughout the country. To address these problems, the Executive Office of the President, Office of National Drug Control Policy (ONDCP), and the Department of Health and Human Services (HHS), Substance Abuse and Mental Health Services Administration (SAMHSA), established the Drug Free Community Program (DFC) with the following goals:

1. Establish and strengthen collaboration among communities, public and private non-profit agencies, as well as federal, state, local, and tribal governments to support the efforts of community coalitions working to prevent and reduce substance use among youth.

2. Reduce substance use among youth and, over time, reduce substance abuse among adults by addressing the factors in a community that increase the risk of substance abuse and promoting the factors that minimize the risk of substance abuse.

In 2014, Coalition for a Drug Free Nevada County (CFDNC) applied for and received a Drug Free Community (DFC) mentoring grant for the Lincoln and Auburn areas. The primary goal of the DFC mentoring grant is for the mentor coalition, in this case CFDNC, to assist a newly formed coalition in becoming eligible to apply for DFC funding on their own. Drug Free Community funding grants total $125,000 a year, for five years. The funded coalition must also match that amount. At the end of the five-year term the coalition can apply for an additional five-year term. The newly formed coalition is now known as Coalition for Auburn and Lincoln Youth (CALY).

Current CALY Activities

In a short time CALY has been able to mobilize community leaders in both the Lincoln and Auburn areas. Initial efforts included addressing the structure, policy and procedures of the coalition. The next steps cultivated and recruited individuals to become the initial leadership team for the coalition. These efforts were successful and resulted in Lincoln's Chief of Police, Rex Marks accepting the Chair position for CALY.

CALY now is extending the mobilization of the community beyond the initial members. This effort is culminating in a community forum on October 20, 2015. There are three objectives for this meeting:

- Share important information about the nature and scope of the youth substance use in the community.
- Provide a forum for community members to provide input on the role CALY can play in preventing youth substance use disorders.
- Have participants consider how they and/or their organizations can become involve with CALY efforts.

Overview

How to Use the Situational Assessment to Prepare for the October 20th Meeting

The following situational assessment includes information that attendees can review, and thus provide for a more meaningful experience, and help achieve CALY's objectives for the meeting. While the materials do not represent an exhaustive study of the local youth substance disorder's it can facilitate initial discussions. The materials are divided into three main sections. The first provides the key findings of the situational assessment. The second provides detailed local data, and the last section(s) describes important facets of the prevention of substance use disorders.

Please note: The results of the data gather on 11th grade students from Placer, Lincoln and Phoenix High Schools should not be interpreted as a directed result of the school environment. The community and family environments have a powerful influence on youth substance use disorders. High schools that conduct surveys such has the California Healthy Kids Survey, are providing a vital service for the health and wellbeing of the community.

The situational assessment is formatted to allow the reader to get a snapshot of the issues to be discussed, and if desired, delve more deeply into each of the findings**. At a minimum, the reader should review the key findings (pg. 5 through pg.11)**. There will also be presentations at the meeting on the key findings. The day will provide for small group discussions where participants will consider the following questions:

- What surprised you most about the information in the situational assessment?
- What ideas do you have to address prevention of substance use disorders?
- What are your initial thoughts about the trauma-informed approach to prevention? What do think are the opportunities and challenges to implementing this approach?
- What role do you think CALY can play related to prevention of substance use disorders in the Auburn and Lincoln communities?
- How can you or your organization support CALY moving forward?
- What other information or issues should CALY be considering as it begins to define its role and actions in the community?

Key Findings

Key Findings

1. **Locally, youth substance use rates are below State averages for all substances.**
2. **The primary substances of choice in CALY's service area are alcohol and marijuana.**
3. **Continuation school students have increased risk and use in all substances surveyed.**
4. **National and State polices/laws/initiatives, along with the general public's perception of marijuana as a harmless substance, have and will continue to have a major impact on local youth's marijuana use disorders.**
5. **Effective substance use disorder prevention strategy requires a sustained effort over the long-term.**
6. **A trauma-informed approach is a viable strategy for prevention of substance use disorders thereby reducing adverse health and social consequences.**
7. **The structure, composition and function of a community coalition make it ideal for addressing youth substance use disorders by utilizing environmental strategies.**

Key Findings

1) **Locally, youth substance use rates are below State averages for all substances.** According to data from the Robert Wood Johnson Foundation, Placer County ranks second in having the best social determinants of health in California. Social determinants of health are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life and ultimately people's health. These conditions all serve as a strong foundation to build upon when addressing the current substance use disorders among local youth.

2) **The primary substances of choice in CALY's service area are alcohol and marijuana.** Alcohol is the most used substance of choice with approximately 26% of 11th grade students reported having at least one full drink in the last 30 days (This measure is generally recognized as being indicative of current, active substance use rather than one-time or sporadic experimentation.). Marijuana is the second most used substance and the most widely used illicit drug with 17% of students reported having used the substance in the last 30-days. E-cigarettes also are becoming more popular among youth and should be monitored more closely in future surveys and assessments. A troubling statistic is that one in five youth are binge drinking each month (binge drinking is defined as having 5 or more drinks in a few hours). In regards to frequency of use, marijuana is beginning to rival alcohol. In fact, the percentage at which youth used marijuana 3 or more days in the past month, is statistically equal or in some comparisons surpasses alcohol use.

   Taking prescription drugs that were not prescribed for the user, tobacco, inhalants, other drugs such as cocaine, methamphetamine or heroin, are much less commonly used, although the other drugs such as heroin can have very dire consequences for youth who use them. Many prevention efforts target overall youth development. Therefore, prevention efforts often do not target specific drugs, rather they aim at helping youth make good decisions in all aspects of their lives. Mentoring is frequently referred to as a youth development strategy—one that uses positive youth-adult relationships to provide broad guidance and support rather than aiming to fix a problem or teach a specific skill. (KY1) These youth development efforts along with social norms that reflect a substance free lifestyle can serve to prevent youth from becoming involved in any substances, including those that are less commonly used by youth. Also, a community that embraces a trauma-informed approach to wellness can better prevent and identify those youth that are at higher risk for using substances.

   The risk factors for alcohol and marijuana use in the community include: early initiation of the problem behavior; ease of availability; low perception of harm (especially related to marijuana), and; social norms favorable to the problem behavior.

3) **Continuation school students have increased risk and use in all the substances surveyed.** While this is not uncommon, it's still a major cause for concern. This is consistent with aggregate California data showing much earlier initiation among students in Continuation High Schools, who report much higher prevalence and levels of current alcohol and other drug use.(KY2)

Key Findings

4) **National and State polices/laws/initiatives, along with the general public's perception of marijuana as a harmless substance, have and will continue to have a major impact on local youth's marijuana use disorders.** With the increase in availability (due to the proliferation of medical marijuana dispensaries), and the decrease in the perception of harm of marijuana use, youth 30-day use rates in California have increased. In some counties marijuana use now rivals alcohol as the substance of choice for youth. Overall, in California, comparing 2006-2008 to 2011-2013 survey results, 11th grade students 30-day use rate for marijuana has increased from 18% to 24%. At the same time alcohol use has decreased from 37% to 33%. Locally, 30-day use rates are 29% below the State rate at 17%. This may be attributed to many factors including: the positive impact of the social determinates of health; locally run prevention programs, and; the local restrictions on medical marijuana dispensaries. Continuation school students' 30-day use rates are 71% above the California average, and rivals their alcohol use rate of 43%. These students have also made marijuana their substance of choice for frequency of use.

   It's expected that in 2016 there will be at least one ballot measure aimed at legalizing recreational marijuana use. As recently as October 11, 2015 – Gov. Brown signed into law three bills that serve to regulate the medical marijuana industry in California. These bills create departments at the State level to regulate the cultivation, distribution and sale of marijuana. Under a dual licensure system that compels marijuana industry members to obtain both State and local permits, cities and counties can maintain bans and restrictions on medical cannabis. Counties may also impose taxes on growth, distribution and sale of marijuana. These laws may serve has a framework to address legalized recreational marijuana - if approved by California voters.

   Locally, counties and cities will be faced with various decisions regarding marijuana, regardless of the outcome of the 2016 ballot measures. It will be vital for the Coalition to provide local leaders and the general public with information and education regarding the use and harms of marijuana.

   Recent epidemiological data from Colorado and Washington can provide a snapshot of the impact of legalization of recreational marijuana use. Below is recent data that demonstrates how availability and low perceived harm can impact marijuana use and its consequences. These factors, coupled with the increased level of THC in today's marijuana, are also having an impact on consumption and its consequences. According to the National Institutes of Health (NIH), and contrary to common belief, marijuana can be addictive. Research suggests that about 1 in 11 users becomes addicted to marijuana (KY3).This number increases among those who start as teens (to about 17 percent, or 1 in 6) (KY3) and among people who use marijuana daily (to 25-50 percent) (KY3). These studies can provide a context for the following epidemiological data from Colorado.

Key Findings

Year-to-date statistics from Colorado:

1. Traffic deaths: A 32 percent increase in marijuana-related traffic deaths in one year from 2013.
2. Driving under the influence: Toxicology reports with positive marijuana results of active THC for primarily driving under the influence have increased 45 percent.
3. Marijuana use by children: Colorado youth usage (ages 12 to 17) ranks 56 percent higher than the national average.
4. ER visits: A 29 percent increase in the number of marijuana-related emergency room visits.
5. Hospitalizations: A 38 percent increase in the number of marijuana-related hospitalizations.
6. Poison control: Marijuana-only related exposures increased 72 percent in one year.
7. More marijuana trafficking: The yearly average interdiction seizures of Colorado marijuana increased 34 percent.

This and other information can be found in the report "The Legalization of Marijuana in Colorado: The Impact", Volume 3, September 2015.

Lastly, adolescent treatment data for Placer County (2014 Treatment Admissions Substance Use - Ca. Outcomes Measurement System) depict a majority of teens in treatment who say their substance of choice is marijuana. In 2014, 68 teens were in Placer County Drug Treatment (Does not include private treatment). Their drug of choice was:

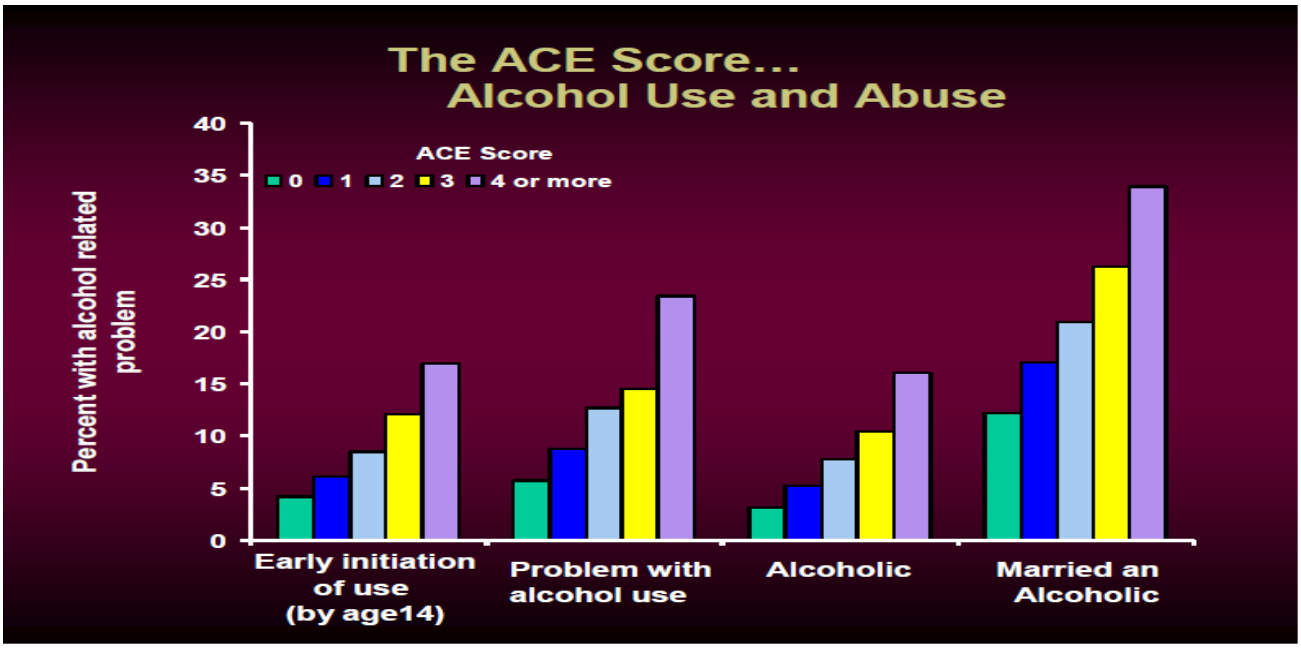
61%	Marijuana
14%	Alcohol
13%	Methamphetamine
3%	Heroin
3%	Oxycotin (Pills)
1.5%	other

5) **Effective substance use disorder prevention strategy requires a sustained effort over the long-term.** Over the next three years the coalition will need to build its capacity to address substance use disorders in its service area. The research on sustainability indicates that there are eight factors, that when addressed, increase the likelihood of a program, organization or coalition sustaining its effort(s). CALY currently has a 2-year grant from Drug Free Communities program. This grant specifically funds the coalition's efforts to mobilize the community to address youth substance use disorders. The grant prepares the coalition to apply for another Drug Free Communities grant that lasts for five years and provides for application for an additional five years. In large part the degree to which CALY mobilizes the community over the next two years will have a major impact on receiving this grant.

Key Findings

6) **A trauma-informed approach is a viable strategy for prevention of substance use disorders thereby reducing adverse health and social consequences.** Many prevention interventions are focused on middle and high school students with the hope that risk factors can be reduced before they manifest into risky behaviors such as substance abuse and dependency. Now a movement is bringing awareness to certain adverse childhood experiences or ACEs, collectively known as traumas that can contribute to developing risky behaviors in adolescence and adulthood. Over last 20 years SAMHSA has been a leader in recognizing the need to address trauma as a fundamental obligation for public mental health, substance abuse, and dependence service delivery and has supported the development and promulgation of trauma-informed systems of care. More communities are adopting a trauma-informed approach to prevent and treat the effects of trauma on individual health outcomes, including those caused by substance abuse and dependence.

"The Adverse Childhood Experiences (ACE) Study" is one of the largest studies to assess the correlation of family dysfunction and child maltreatment to health behaviors and outcomes later in life. The study was a joint effort between the Centers for Disease Control and Prevention, and Kaiser Permanente's Health Appraisal Clinic in San Diego. One finding from the study is ACEs are much more common than anticipated or recognized. In addition the study found that one of the strongest relationships seen was between an individual's ACE score and alcohol use and abuse. Given recent research indicating the negative impact of alcohol use on neurodevelopment during adolescence, the relationship of ACEs to the early initiation of alcohol use is particularly worrisome. The negative health and social consequences of alcohol abuse and alcoholism constitute a major public health problem and ACEs have a particularly strong association with alcohol abuse and dependence.



Key Findings

A trauma-informed approach involves viewing trauma through an ecological and cultural lens and recognizing that context plays a significant role in how individuals perceive and process traumatic events, whether acute or chronic. A trauma-informed approach can be implemented in any type of service setting or organization and is distinct from trauma-specific interventions or treatments that are designed specifically to address the consequences of trauma and to facilitate healing.

When an entity or locale takes the step to become trauma-informed, every part of its organization, management, and service delivery system is assessed and potentially modified to include a basic understanding of how trauma impacts the life of an individual. Trauma-informed entities and locales are based on an understanding of the vulnerabilities or triggers of trauma survivors that traditional service delivery approaches may exacerbate, so that services and programs can be more supportive and avoid re-traumatization.

7) **The structure, composition and function of a community coalition make it ideal for addressing youth substance use disorders by utilizing environmental strategies.** There are growing demands for improving prevention outcomes as well as reducing the societal costs of substance abuse consequences. The focus has shifted to achieve changes in whole **populations** rather than focusing exclusively on changes among individuals through direct service programs. Direct service programs do play an important role in a comprehensive approach to the prevention of substance use disorders. However, environmental strategies play a unique role in establishing or changing written and unwritten community standards, codes and attitudes, thereby influencing incidence and prevalence of substance abuse in the general population.

As a Drug Free Community Grantee, CALY has two major goals:

- Establish and strengthen collaboration among communities, public and private non-profit agencies, and Federal, State, local, and tribal governments to support the efforts of community coalitions working to prevent and reduce substance use disorders among youth. For the purposes of this grant, "youth" is defined as individuals 18 years of age and younger.

- Reduce substance use disorders among youth and, over time, reduce substance abuse among adults by addressing the factors in a community that increase the risk of substance abuse and promoting the factors that minimize the risk of substance abuse.

CALY is required to work toward these two goals as the primary focus of their Federally-funded effort. Grants awarded through the DFC Program are intended to support established community-based coalitions capable of effecting community-level change. A coalition is defined as a community-based formal arrangement for cooperation and collaboration among groups or sectors of a community in which each group retains its identity, but all agree to work together toward a common goal of building a safe, healthy, and drug free community. Coalitions receiving DFC funds are expected to work with leaders within their communities to identify and address local youth substance use disorders and create sustainable community-level change through environmental strategies.

Key Findings

Environmental strategies are based on the belief that substance abuse is a product of multiple environmental conditions and circumstances. Environmental strategies incorporate prevention efforts aimed at changing or influencing community conditions, standards, institutions, structures, systems, and policies. The focal areas for developing and implementing environmental strategies are: norms, availability, and regulations. More specifically, environmental strategies seek to: (1) limit access to substances; (2) change the culture and context within which decisions about substance use disorders are made; and/or (3) shift the consequences associated with youth substance use disorders.

Norms, regulations, and availability are characterized as "playing leap-frog" because generally, the three areas cluster together around individual issues. Norms, regulations, and availability are interdependent and mutually supportive; they constitute stable systems that are tightly interwoven. A change in any one of these factors will cause changes in the other two. As norms (or availability or regulations) change, they tend to pull the other factors along with them. However, it is a conservative "game," and no single factor can change too much or too quickly without experiencing a backlash. For example, rarely does a society demonstrate norms that favor a particular behavior yet regulate against that behavior and restrict its access. However, one of these areas needs to be pushed in the right direction for the others to follow suit, and the others must also be appropriately coaxed and supported.

If a regulation is put into place before a community's values are aligned with that regulation, there is a good chance that the regulation will fail unless tremendous efforts are made to modify the community's opinions. California's smoke-free bars and restaurants initiative is an excellent example of why it is important to move all three areas – norms, regulations and availability – along at more or less the same speed. The strongest prevention approaches will derive from considering norms, regulations, and availability as a package and will acknowledge that a strategy aimed at any one of these components should be viewed as an entry point into a systems consideration of all three.

Today, ample evidence exists that well-conceived and implemented policies—local, State, and national—can reduce community-level alcohol, tobacco, and other drug problems. Environmentally-based approaches reach entire populations and reduce collective risk, making them cost effective prevention strategies. CALY should be mindful that the DFC Program requires the planning and implementation of environmental strategies as part of their comprehensive efforts to reduce youth substance use disorders.

Youth Substance Use Disorders' Data

Methodology Used to Conduct the Youth Substance Data

- The purpose of the Local Youth Substance Use Data section is to determine the nature and scope of the alcohol and other drugs problem in CALY's service area and to identify the risk factors driving the problem. Suppression of these risks is indicated in the prevention science literature as an effective strategy for accomplishing population-level rate reductions.
- CALY's service area includes Auburn (zip codes 95602, 95603, 95604) and Lincoln (zip code 95648). All data relates to these areas unless specifically mentioned otherwise.
- In the report CALY's service area is also referred to as the "local" community.
- The California Healthy Kids Survey (CHKS) served as the major impetus to analyze the nature and scope of the substance use disorder problem for Lincoln. For Auburn, a sister entity, the Coalition for Placer Youth: Raising Placer Drug Free, targeted Placer High School students with locally developed online student survey. Unless noted, only questions that were identical were used as comparisons between the two surveys and the CHKS aggregated California data. At the time of this report, Placer High School had decided to switch to the CHKS. This should make for better comparison and analysis. Schools also have the opportunity to add questions of their own. The following are sources that were used in this section of the assessment.
- The Coalition for Placer Youth: Raising Placer Drug Free, 2014 Student Survey. A total of 605 Placer High School students (354 ninth graders and 251 eleventh graders) participated in this locally developed online student survey.
- The CHKS 2013-2014. Sample populations from both Lincoln High School, and Phoenix Continuation School students were surveyed (483 seventh graders, 379 ninth graders, 269 eleventh graders and 41 continuation high school students)
- The most recent Aggregated CHKS for 2011-2013. Students surveyed included: 11,426 seventh graders, 14,647 ninth graders, 13,092 eleventh graders. Continuation high school students were not available.
- **Only 11th grade students were used in this analysis, except where noted.** Eleventh grade normally depicts the lifelong influences of the social determinants of health, and the risk and protective factors, on youth substance. Data for the other grades is available and should be used when targeting age appropriate interventions. In general substance use increases as youth get older.
- All the data is available upon request or accessing the WestEd website for the CHKS data.
- The following key can be used to identify the location of the students surveyed. AUB – is Placer County High School, WP – is Western Placer, specifically Lincoln High School, NT-is the Non-traditional school (or continuation school) Phoenix, and CA is the aggregated CHKS for California. The "raw data can be requested" so cross-tabulations can be analyzed.
- Robert Wood Johnson analysis of the social determinants of health. Retrieved Oct. 2015 from http://www.countyhealthrankings.org/app/california/2015/rankings/placer/county/outcomes/overall/snapshot

Youth Substance Use Disorders' Data

Past 30 Day Use Rates

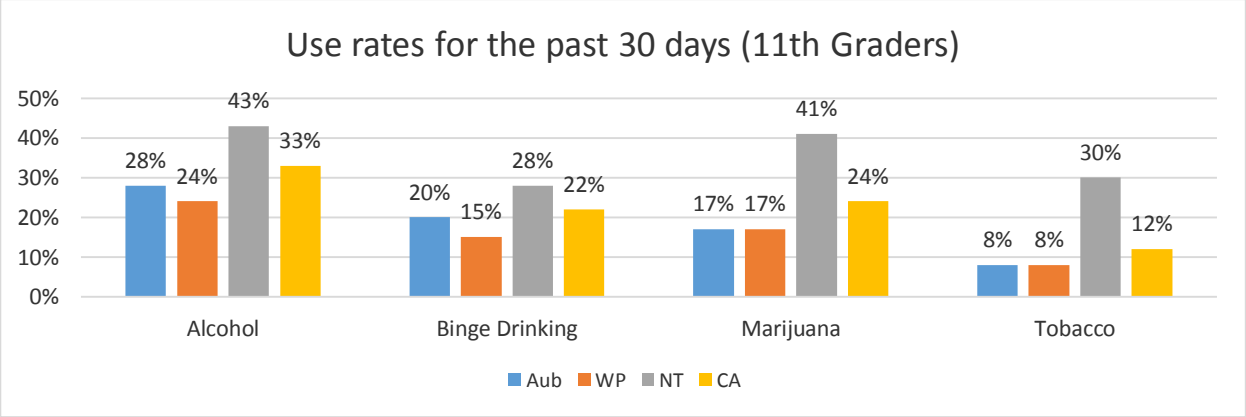
Using any substances in the last 30 days is generally recognized as being indicative of current, active substance use rather than one-time or sporadic experimentation.

Alcohol is the primary problem. Students were asked if they consumed at least on full drink in the last 30 days. This measure is generally recognized as being indicative of current, active substance use rather than one-time or sporadic experimentation. Overall, 30 day use rates for alcohol are below State use rates, with Placer High School (PHS) rates being slightly higher than Lincoln. Yet, rates are still high enough to be a concern for the community. Approximately one quarter of students reported that they had consumed alcohol at least once in the past 30 days. Of particular concern is the continuation school's use rate of 43%, which is 30% higher than the State average. In general, continuation schools often have higher substance use rates than traditional schools.

Binge drinking is a pattern of (i.e., having five or more drinks in few hours least once in the prior 30 days) alcohol consumption that is probably of greatest concern from a public health perspective. It is a particular area of concern, both because of its grave short-term consequences (e.g., assaults, accidents, black-outs, deaths) and long-term consequences (e.g., impact on brain functioning, priming for alcoholism, potential for other health problems) (see figure 1). Binge drinking indicates that youth are drinking to get drunk. In Auburn and the continuation school nearly one in five students are binge drinking, while in Lincoln it is nearly one in seven. Again the continuation school exceeds the State average with nearly one in four students binge drinking at least once a month.

Marijuana is the community's secondary problem. Marijuana use is 29% below the State average. Currently there are no medical marijuana dispensaries in Placer County, and this may be one factor in helping to keep rates low. The continuation school's marijuana use rates exceeds the two other high schools by 141% and rivals alcohol for the substance of choice.

Tobacco rates are well below State averages. Both high schools are 33% below the State average. The continuation school's rate exceeds the State average by 150% with nearly 1 in 3 students reporting smoking in the last 30 days.



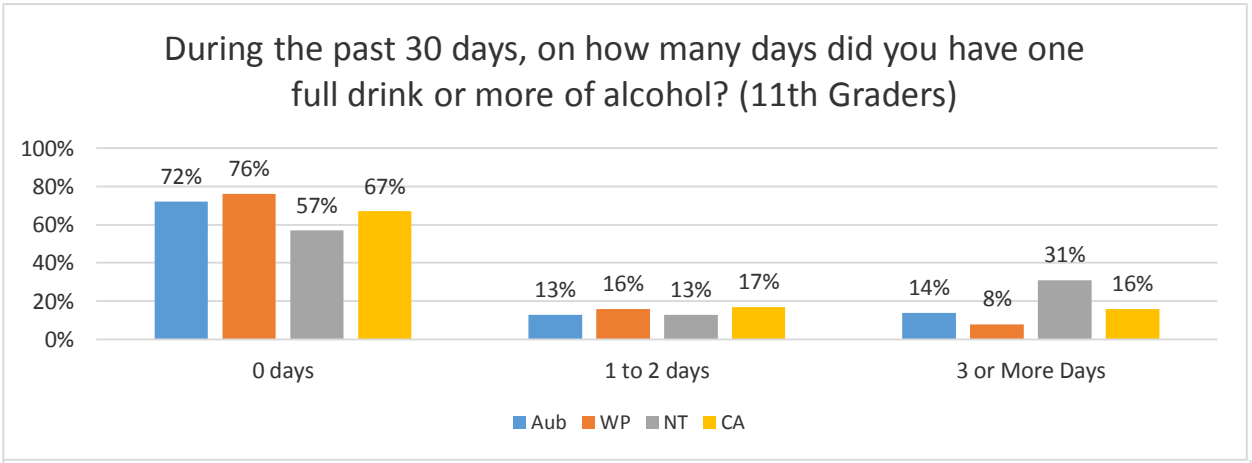
Youth Substance Use Disorders' Data

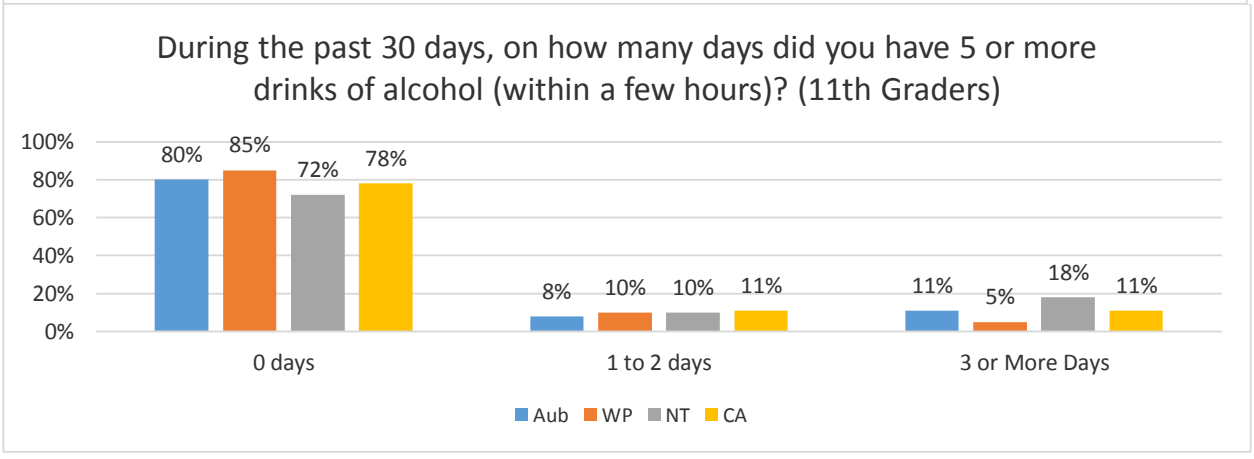
Frequency of Use

Youth who use alcohol or marijuana at least once a week are much more likely to experience use-related problems (e.g., school work or behavior problems) and increases the risk of later substance abuse.

Approximately one in four students demonstrate signs of **frequent alcohol use (figure 2).** One in ten drink at least 3 or more days per month. One third of the continuation school students consume alcohol 3 or more days a month. This is 14% to 50% higher than the other high schools.

Even more troubling is the **frequency of binge drinking (see figure 3)**. Overall one in six students are binge drinking at least 1 each month. . The continuation school rates for binge drinking are 47% to 87% greater than the other high schools. Binge drinking presents a current danger to students and is an indication of future addiction. Heavy drinkers are highly vulnerable to intoxication and a variety of acute alcohol related problems, especially because of their low body weight. (KY2) These include losing control over their actions, exercising poor judgment, and engaging in high-risk activities such as driving while intoxicated or unprotected sex. (KY2) They also have been found to be far more likely than nondrinkers to say that their schoolwork is poor and that they have cut classes or skipped school. (KY2)





Youth Substance Use Disorders' Data

Frequency of Use (continued)

Frequency of marijuana use is beginning to rival alcohol. In fact, the percentage at which youth use marijuana 3 or more days in the past month, surpasses or equals alcohol use (except for PHS). Adolescent treatment data for Placer County (2014 Treatment Admissions Substance Use - Ca. Outcomes Measurement System) depict a majority of teens in treatment who say their substance of choice is marijuana. In 2014, 68 teens were in Placer County Drug Treatment (Does not include private treatment). Their drug of choice was:

61%	Marijuana
14%	Alcohol
13%	Methamphetamine
3%	Heroin
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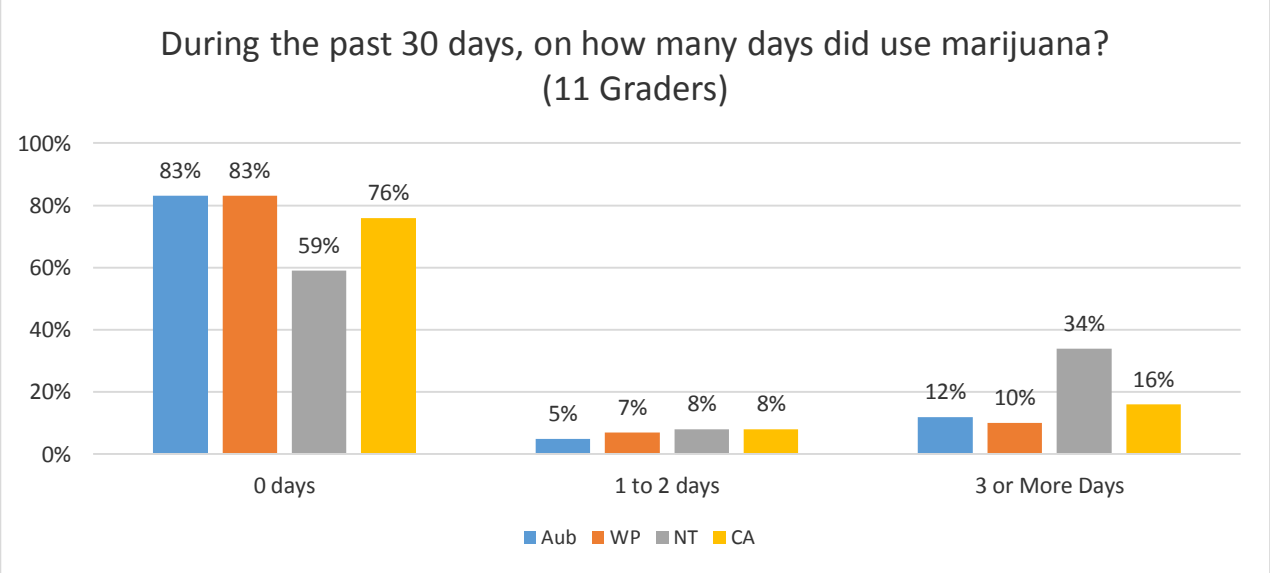


Youth Substance Use Disorders' Data

Early Initiation of Alcohol and Marijuana Use

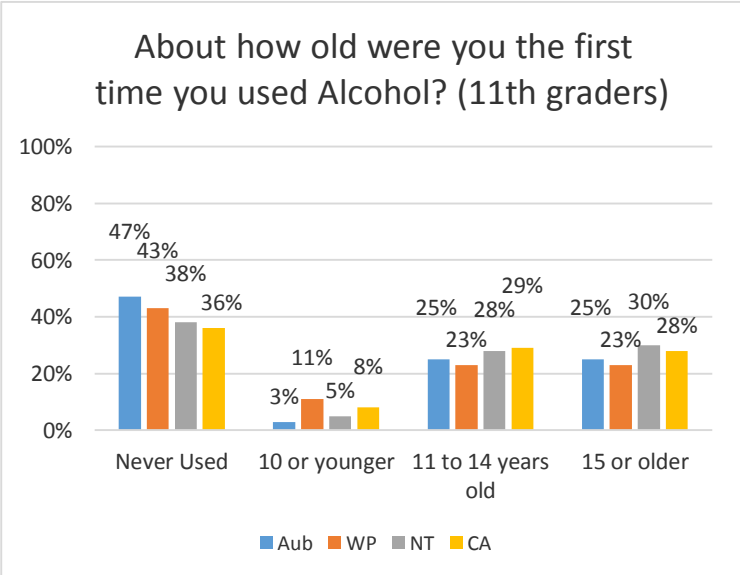
Early onset of substance use predicts future misuse.

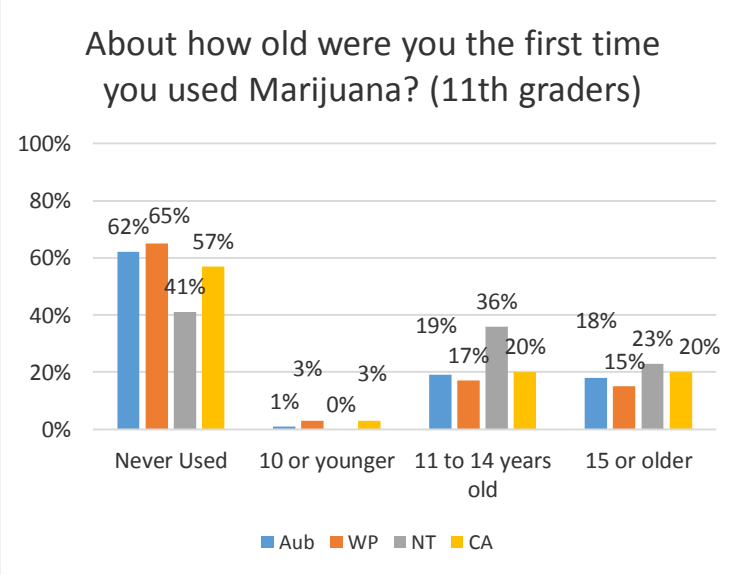
Overall, youth initiate alcohol use at a younger age than marijuana. The continuation school students initiate use of both substances earlier than the traditional high schools. Research has demonstrated that the earlier a child initiates alcohol and other drug use (regardless of substance), the greater will be the later use and adverse consequences, as well as involvement in other risk activities. Young people who initiate any drug use before the age of 15 appear to be at twice the risk of having drug problems during their lifetime, compared to those who wait until after the age of 19.

Early use of alcohol, marijuana, and other drugs also predicts early school dropout. Students who use marijuana before the age of 15 have been found to be three times more likely than other students to have left school before age 16 and were two times likelier to report frequent truancy.(KY2)

Consistent with this, California data show much earlier initiation among students in Continuation High Schools, who also report much higher prevalence and levels of current AOD use.(KY2) In one study, early marijuana users (mean age 14) were at greater risk in late adolescence (five years later) of not graduating from high school, delinquency, having multiple sexual partners, not always using condoms, perceiving drugs as not harmful, having substance use problems, and having more friends who exhibit deviant behavior. (KY2)

In addition, contrary to common belief, marijuana can be addictive. Research suggests that about 1 in 11 users becomes addicted to marijuana (KY3).This number increases among those who start as teens (to about 17 percent, or 1 in 6) (KY3) and among people who use marijuana daily (to 25-50 percent) (KY3).



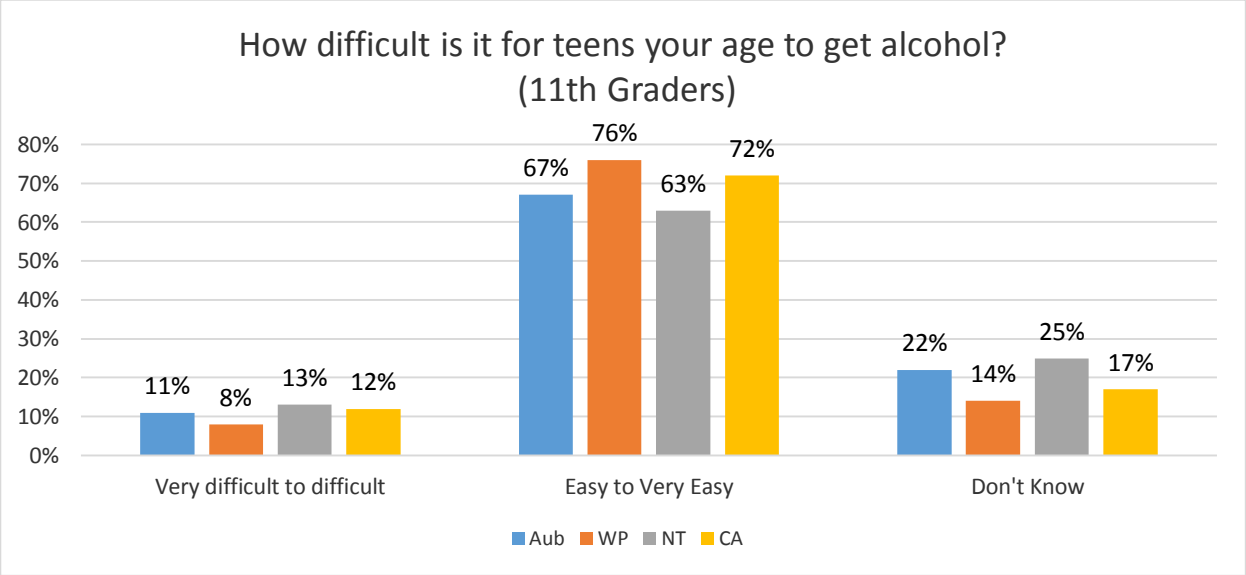


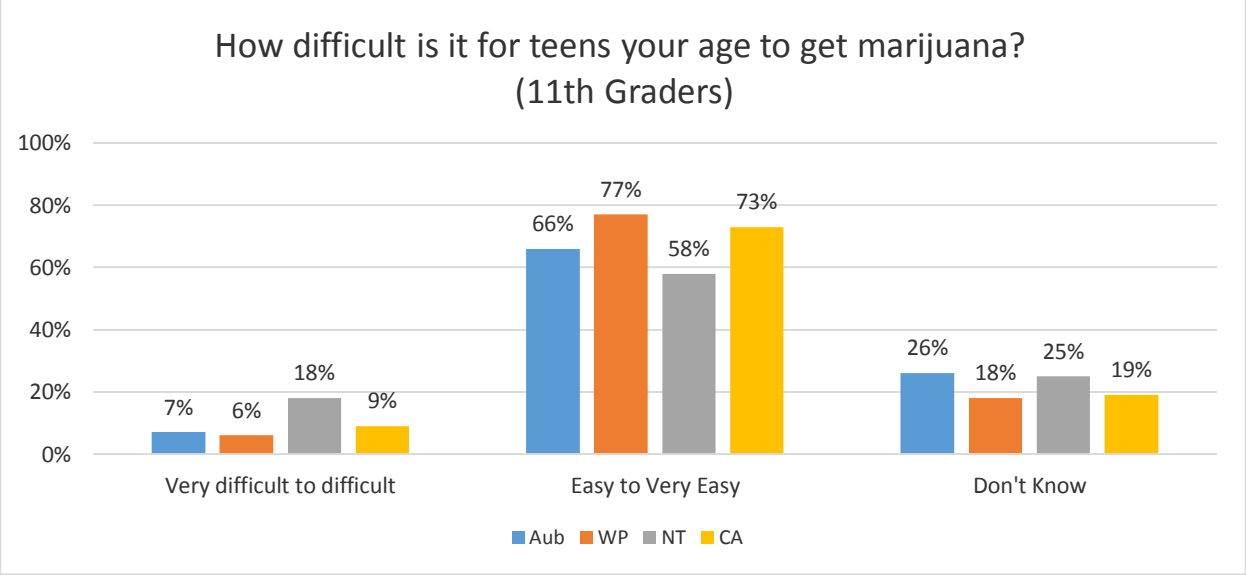
Youth Substance Use Disorders' Data

Perception of Difficulty Obtaining Alcohol, and Marijuana

The availability of alcohol and marijuana has been related to the use of these substances by adolescents.

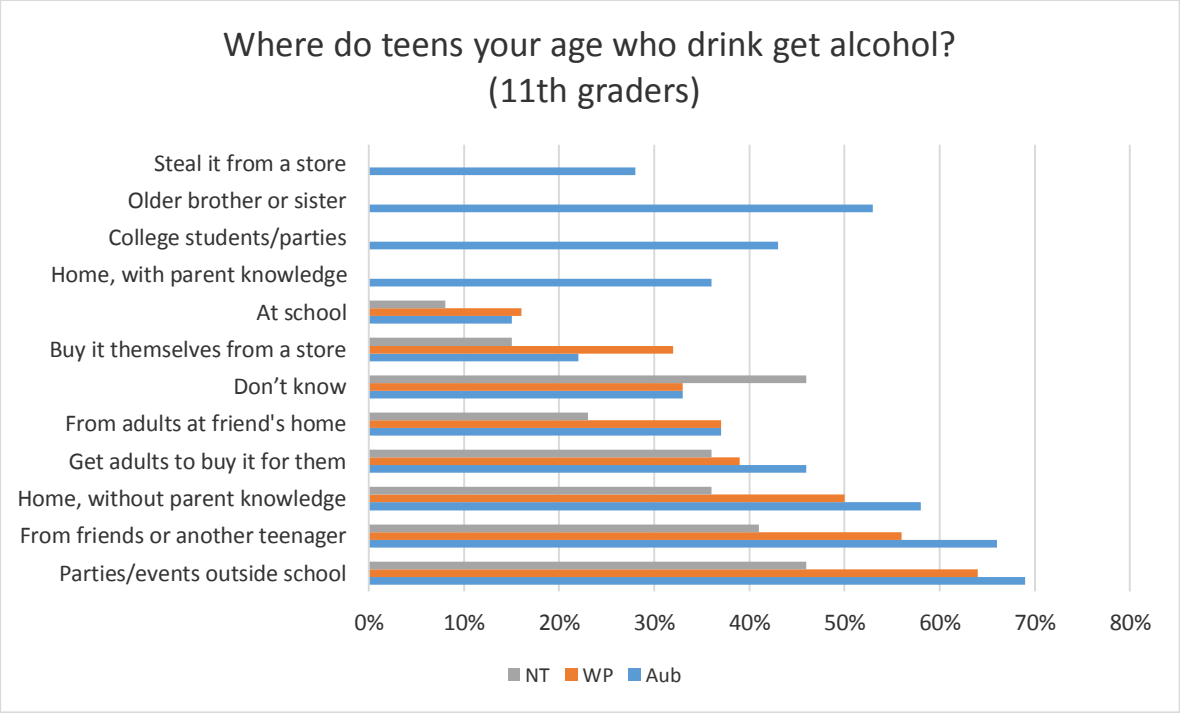
Youth overwhelming perceive that it is "easy" or "very easy" to obtain alcohol and marijuana. Normally as youth get older they will also perceive it is easier to get alcohol, and marijuana. It's interesting to note that continuation school students actually perceive it's more to obtain alcohol and marijuana than students in traditional high schools.

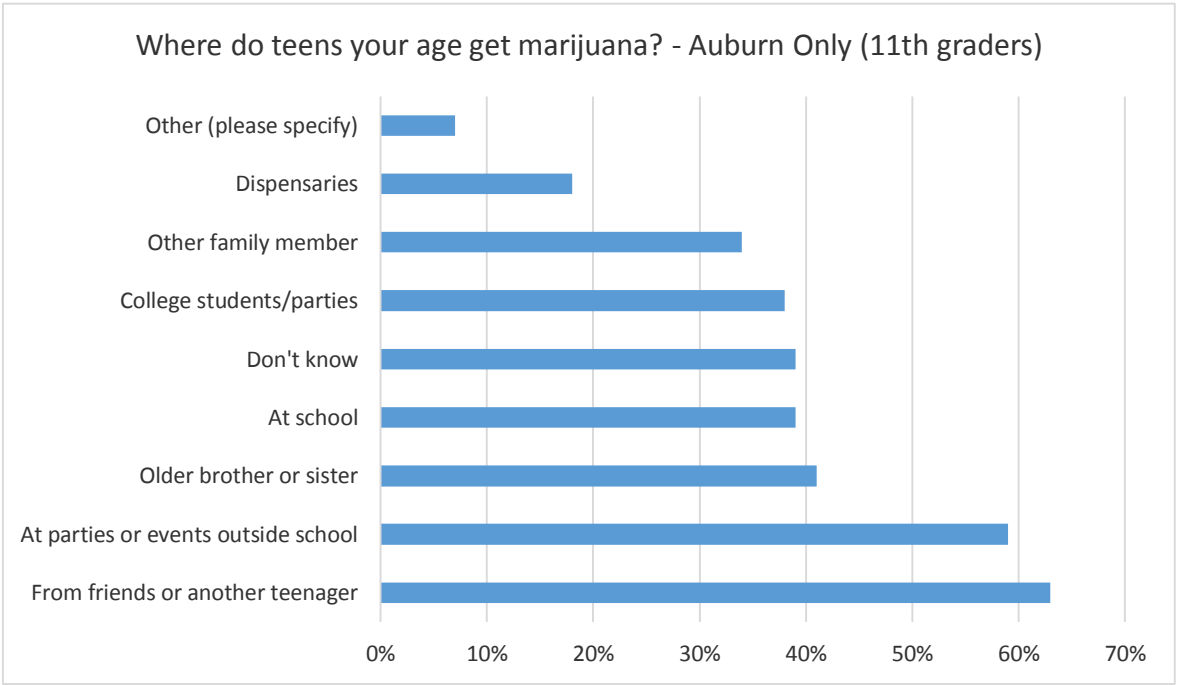




Youth Substance Use Disorders' Data

The following graphs depict where teens obtain alcohol and marijuana. Data was not available for WP and California for where teens obtain marijuana.



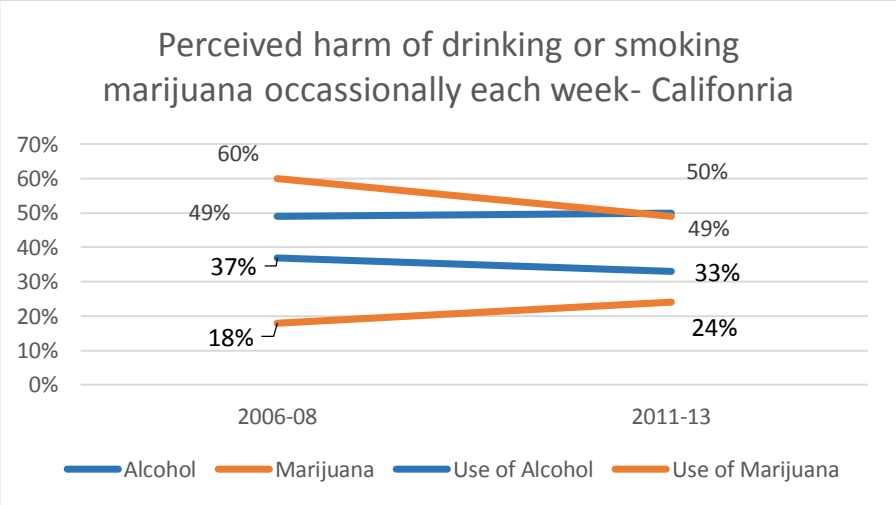


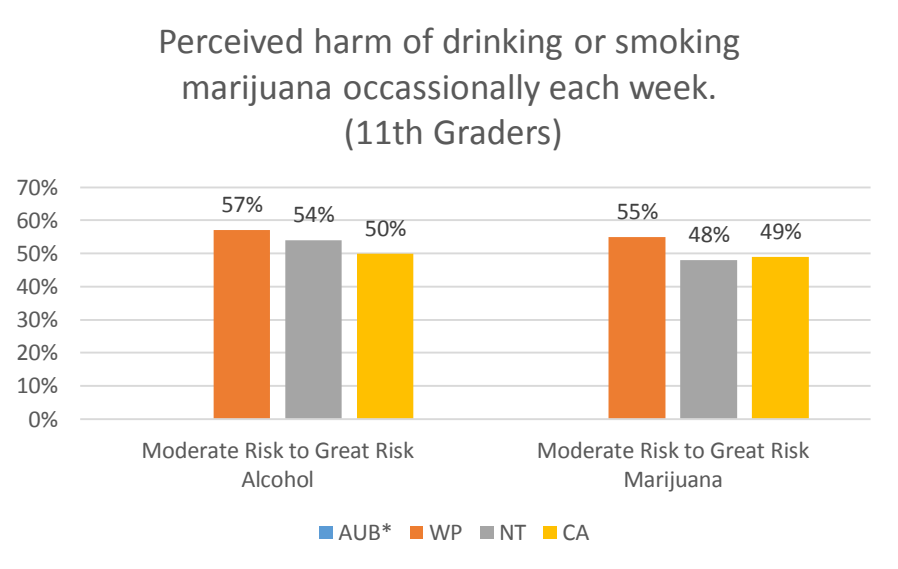
Youth Substance Use Disorders' Data

Youth Perception of Harm of Frequent ATOD Use

Young people who do not perceive alcohol and/or marijuana use to be risky are far more likely to engage in using substances.

For the first time the CHKS results for California depicts the perception of harm for marijuana lower than alcohol. This is mainly due to the normalization, and legalization of medical marijuana in California. Notice the inverse relationship between perception of harm for marijuana and use rates. As the perception of harm for marijuana decreased, marijuana use has increased.





*Data for Auburn was not collected in a comparable format.

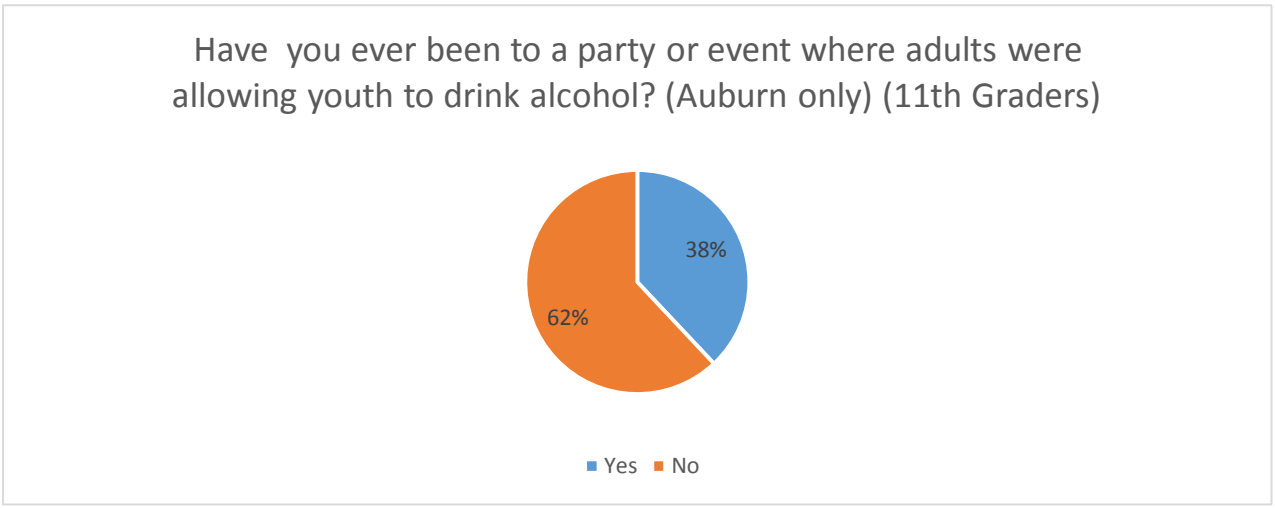
Youth Substance Use Disorders' Data

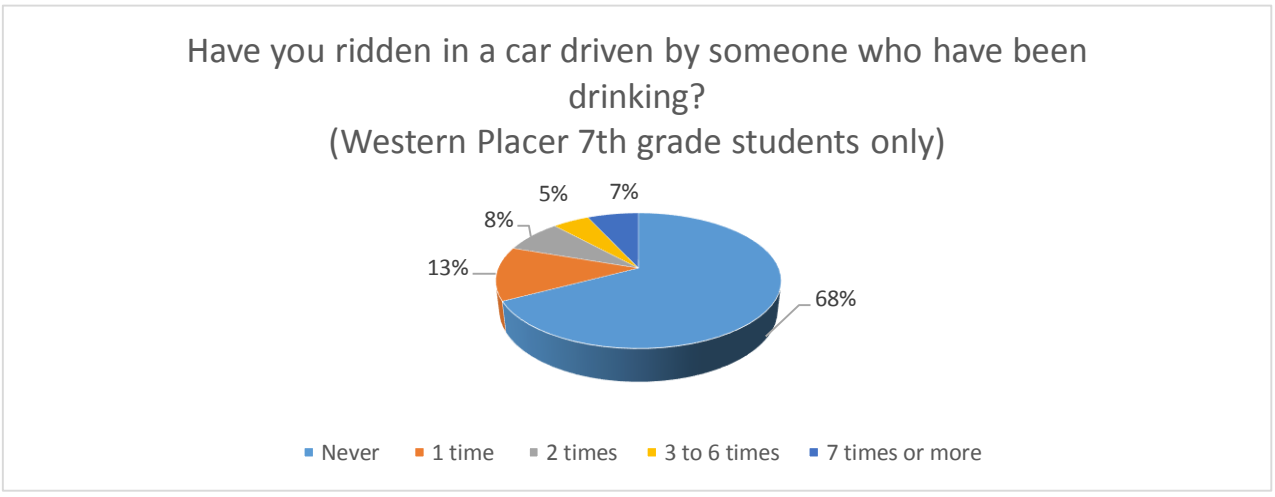
Social Norms of Adults Regarding Substance Use

Youth are receiving messages from the actions of adults that alcohol and other drug use is relatively normal behavior.

Norms are the basic orientations concerning the "rightness or wrongness," acceptability or unacceptability of specific behaviors for a specific group of individuals (e.g., it is wrong for anyone to use illicit drugs; it is okay for adults to drink in moderation). Norms are the basis for a variety of specific attitudes that support or undermine the particular prevention strategies we may wish to implement.

The data below would suggest a need for prevention interventions focused on changing attitudes and social norms regarding drug use among parents in this community. In both cases nearly one third of parents are demonstrate negative behaviors regarding alcohol use.



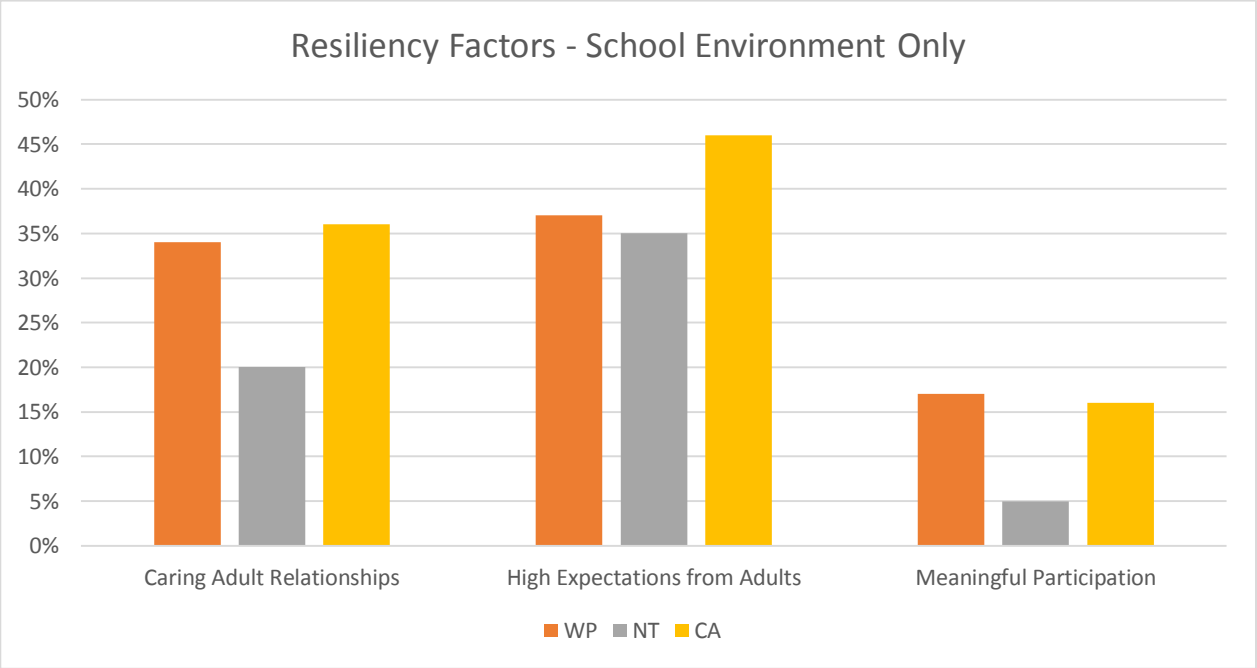


Youth Substance Use Disorders' Data

Protective Factors and Resiliency

Resilience research, the long-term study of positive youth development in the face of environmental threat, stress, and risk, consistently identify these principles as caring relationships, high expectation messages, and opportunities for participation and contribution. These supports and opportunities, referred to as protective factors, have been linked to the development of resilience—broadly defined as the ability to rebound from adversity and achieve healthy development and successful learning. They should be available in all environments in a young person's world: home, school, community, and peer groups. Data is only available for the school environment for Western Placer School District (Lincoln (WP) and Phoenix High Schools (NT)). (KY4)

It's recommended that in subsequent CHKS resiliency questions pertaining to the home, community, and peer groups be included on the survey.



Youth Substance Use Disorders' Data

Suicide and Substance Use Disorders

A number of recent national surveys have helped shed light on the relationship between alcohol and other drug use and suicidal behavior. A review of minimum-age drinking laws and suicides among youths age 18 to 20 found that lower minimum-age drinking laws was associated with higher youth suicide rates. In a large study following adults who drink alcohol, suicide ideation was reported among persons with depression. In another survey, persons who reported that they had made a suicide attempt during their lifetime were more likely to have had a depressive disorder, and many also had an alcohol and/or substance abuse disorder (U.S. Department of Health & Human Services) retrieved on October 2015 from http://www.hhs.gov/answers/mental-health-and-substance-abuse/does-alcohol-increase-risk-of-suicide/index.html.

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more that you stopped doing some usual activities?

Western Unified District Only	WP	NT
Yes	66%	65%
No	34%	35%
Yes (YRBS)		

During the past 12 months, did you ever seriously consider suicide?

Western Unified District Only	WP	NT
Yes	20%	23%
No	80%	77%

The following data is for 11th graders from Placer Union High School students.

How much stress do you have in your life?
Placer Union High School Only

None	7%
Some	35%
A lot of Stress	37%
Always Stressed	21%

Have you ever had thoughts of hurting yourself?
Placer Union High School Only

Yes	28%
No	72%

Have you ever had thoughts of committing suicide?
Placer Union High School Only

Yes	26%
No	74%

Have you ever tried to commit suicide?
Placer Union High School Only

Yes	9%
No	91%

Youth Substance Use Disorders' Data

During the past 30 days, on how many days did you use...

Western Placer (Lincoln HS) and Continuation School	Grade 11 % *	NT % *
Alcohol (at least one drink)	24	43
Binge drinking (5 or more drinks in a row)	15	28
Marijuana	17	41
Inhalants	1	10
Prescription pain medications to get "high" or for reasons other than prescribed	5	15
Other drug, pill, or medicine to get "high" or for other than medical reasons	3	10
Any drug use	20	43
Heavy drug user	12	38
Any AOD Use	32	50
Two or more drugs at the same time	7	20

11th Grade

Placer High School Students

One full drink or more of alcohol (can of beer, glass of wine, shot of liquor)	28%
E-cigarettes, hookah, or vape pens	20%
Drank 5 or more drinks of alcohol at one time (within a few hours)	20%
Marijuana (pot, weed, dabs, honey oil, grass, hash or bud)	17%
Smoked part or all of a cigarette	8%
Smokeless tobacco (dip, chew, snuff)	5%
Ecstasy, LSD or other psychedelics (acid, mescaline, peyote, mushrooms)	4%
Prescription drugs not prescribed to you (such as Oxycontin, Vicodin, Xanax	3%
Someone else's ADHD medicines (such as Ritalin or Adderall	2%
Cocaine or amphetamines (meth, speed, crystal, crank, ice)	2%
Over the counter medicines to get high or stoned	1%

Youth Substance Use Disorders' Data

Placer County's Social Determinants of Health Rankings

	Placer County	Trend(Click for info)	Error Margin	Top U.S. Performers*	California	Rank (of 57)
Health Outcomes						**2**
Length of Life						11
Premature death	4,922		4,653-5,191	5,200	5,295	
Quality of Life						1
Poor or fair health	9%		7-11%	10%	18%	
Poor physical health days	2.7		2.2-3.1	2.5	3.7	
Poor mental health days	2.9		2.1-3.6	2.3	3.6	
Low birthweight	5.8%		5.5-6.1%	5.9%	6.8%	
Health Factors						**2**
Health Behaviors						2
Adult smoking	8%		6-11%	14%	13%	
Adult obesity	23%		20-26%	25%	23%	
Food environment index	8.2			8.4	7.5	
Physical inactivity	14%		12-17%	20%	17%	
Access to exercise opportunities	91%			92%	93%	
Excessive drinking	16%		14-20%	10%	17%	
Alcohol-impaired driving deaths	33%			14%	31%	
Sexually transmitted infections	212			138	441	
Teen births	15		14-16	20	34	

Youth Substance Use Disorders' Data

	Placer County	Trend(Click for info)	Error Margin	Top U.S. Performers*	California	Rank (of 57)
Clinical Care						3
Uninsured	13%		12-14%	11%	20%	
Primary care physicians	863:1			1,045:1	1,294:1	
Dentists	1,017:1			1,377:1	1,291:1	
Mental health providers	455:1			386:1	376:1	
Preventable hospital stays	33		31-35	41	45	
Diabetic monitoring	84%		80-87%	90%	81%	
Mammography screening	69.3%		66.0-72.5%	70.7%	59.3%	
Social & Economic Factors						2
High school graduation	92%				83%	
Some college	76.5%		74.2-78.9%	71.0%	61.7%	
Unemployment	7.6%			4.0%	8.9%	
Children in poverty	10%		7-12%	13%	24%	
Income inequality	4.4		4.2-4.5	3.7	5.1	
Children in single-parent households	22%		20-24%	20%	32%	
Social associations	7.6			22.0	5.8	
Violent crime	203			59	425	
Injury deaths	47		44-51	50	46	
Physical Environment						28
Air pollution - particulate matter	9.3			9.5	9.3	
Drinking water violations	1%			0%	3%	
Severe housing problems	20%		19-21%	9%	29%	
Driving alone to work	78%		78-79%	71%	73%	
Long commute - driving alone	37%		36-38%	15%	37%	

2015 * 90th percentile, i.e., only 10% are better. Note: Blank values reflect unreliable or missing data

Youth Substance Use Disorders' Data

References

KY1	*Mentoring Fact Sheet*. U.S. Department of Education Office of Safe and Drug-Free Schools Mentoring Resource Center #13, January 2007. *Understanding the Youth Development Model*. Retrieved on Oct 2015 from: http://educationnorthwest.org/sites/default/files/resources/factsheet13.pdf
KY2	*California Secondary School Survey: Alcohol and Other Drug Use. WestEd*
KY3	*Drug Facts: Marijuana*. National Institute Of Health, National Institute on Drug Abuse. Retrieve October 2015 from: https://www.drugabuse.gov/publications/drugfacts/marijuana
KY4	*Resilience and Youth Development:* California Healthy Kids Website. Retrieve October 2015 from: https://chks.wested.org/using_results/resilience

Prevention Science

Highlights

- Many communities are being hindered by a mismatch between knowledge and policies that impact their alcohol, tobacco and other drug (ATOD) problems.

- Over the past thirty years, significant policy shifts and concerted campaigns influenced by prevention planners and grassroots organizers have suppressed tobacco and alcohol rates across the country. However, despite the considerable progress made, researchers warn that complacency has shown to set the stage for a resurgence of ATOD problems.

- We have evidence from prospective, longitudinal studies of the predictors of substance abuse. When these predictors are effectively addressed, they **prevent** substance abuse as well as delinquency, teen pregnancy, school drop-out, violence, and depression and anxiety.

- The focus of prevention has shifted to achieve changes in **whole populations** rather than focusing exclusively on changes among individuals through programs. As a means of impacting current and future ATOD rates at the population level, increasingly more prevention planners are utilizing environmental strategies as part of a comprehensive approach.

Prevention Science

Status of the Prevention Field

In many countries today there is great concern about the use of psychoactive and other harmful substances and their effects on people's lives, especially on young people. National, state, and local governments are spending increasing amounts on the prevention of alcohol, tobacco and other drug (ATOD)-related problems, in some cases as part of a broad-based prevention program designed to tackle a range of adolescent mental health and behavior problems. Unfortunately, there is often a stark contrast between actual patterns of investment and the implications of the new knowledge that is being developed in this field. Examples of mismatches between government policy and knowledge include:

- substantial investment in the prevention of substance use patterns associated with the least harms;
- investment in ineffective and even counter-productive strategies;
- poor implementation of potentially effective strategies;
- governments not being prepared to test the public's willingness to allow effective regulation and enforcement of laws regarding sale and supply of legal drugs;
- governments not being willing to lead public opinion and implement policies that will prevent harm to people who continue to use illegal drugs [R1, pg. xv].

This mismatch between policy and knowledge can be bridged by ensuring that policymakers and community stakeholders are well positioned to make the best possible decisions based on current research and comprehensive, local data.

Prevention science has evolved and grown in the last several decades. What has emerged is a viable model that offers a basis for identifying prevention needs, resources to address those needs, and specific interventions that can reduce the probability of future substance use and other problem behaviors. Assessing the prevalence of risk and protective factors and substance abuse can be done with standardized student surveys, archival data, and interviews. Armed with this information, states and local communities can prioritize their needs by reviewing their profiles of relative strengths and weaknesses. Resource assessment can be conducted to determine the assets available to address those needs and where gaps may occur. Program resources and prevention dollars can then be allocated to areas evidencing the greatest need. Most importantly, instead of the "one size fits all" approach instituted in the past, research-based "best practices" that have demonstrated effectiveness in reducing risk or enhancing protective factors can be matched to the specific needs of a community [R2, p. 251].

Prevention Science

ATOD Use Trends

Researchers agree that fluctuations in adolescent ATOD use are based on a number of factors. One of the most compelling is the introduction of substances to each new generation and that generation's information about and experience with the substance. If the substance is novel (e.g., crack cocaine in the mid-eighties and methamphetamine in the mid-nineties), there will be a greater appreciation of the perceived benefits and less understanding of the harms. As those harms become known to subsequent cohorts, their initiation of the substance tends to diminish. Unfortunately, this takes on a roller coaster pattern, as cohorts learn from their predecessor's substance problems and turn away from the substance, thus providing little example of the substance's harm for the subsequent cohort which in turn is more likely to return to the substance. We are currently witnessing an upsurge in marijuana use thought to be influenced in part by this trend [R3].

Overall, however, significant policy shifts and concerted campaigns influenced by prevention planners and grassroots organizers have suppressed tobacco and alcohol rates across the country. The following is excerpted from the *Overview of Key Findings of the 2008 Monitoring the Future National Results of Adolescent Drug Use* [R3].

Alcohol

To a considerable degree, alcohol trends have tended to parallel the trends in illicit drug use. These include a modest increase in binge drinking (defined as having five or more drinks in a row at least once in the past two weeks) in the early and mid-1990s, though it was a proportionally smaller increase than was seen for most of the illicit drugs. Fortunately, binge drinking rates leveled off seven to ten years ago, just about when the illicit drug rates began to turn around, and in 2002 a drop in drinking and drunkenness began to appear in all grades. Gradual declines have continued in the years since. The longer term trend data available for 12th graders show that alcohol usage rates, and binge drinking in particular, are now substantially below peak levels in the early 1980s.

Cigarettes

There has been some real improvement in the smoking statistics over the last 11–12 years, following a dramatic increase earlier in the 1990s that many associated with aggressive, youth-oriented marketing by the tobacco industry (e.g., "Joe Camel" and Marlboro's cowboys and promotional give-aways). Some of that improvement was simply regaining lost ground, but by 2008, cigarette use has reached the lowest levels recorded in the life of the study, going back 33 years in the case of 12th graders. It is particularly encouraging that, after seeming to end a couple of years ago, the decline in use is now continuing.

It seems likely that some of the attitudinal change surrounding cigarettes is attributable to the adverse publicity suffered by the tobacco industry in the 1990s, as well as a reduction in cigarette advertising and an increase in antismoking advertising reaching children. Price is also likely to have been an important factor; cigarette prices rose appreciably in the late 1990s and early 2000s

as cigarette companies tried to cover the costs of the tobacco settlement, and as many states increased excise taxes on cigarettes. Various other attitudes toward smoking became more unfavorable during that interval, as well, though some have since leveled off. For example, among 8th graders, the proportions saying that they "prefer to date people who don't smoke" rose from 71% in 1996 to 83% by 2008 (with little change since 2003). Similar changes occurred in 10th and 12th grades, as well. Thus, at the present time, smoking is likely to make an adolescent less attractive to the great majority of potential romantic partners.

Where Are We Now?

Clearly, the problem of substance abuse among American young people remains sufficiently widespread to merit concern. Today, nearly half (47%) have tried an illicit drug by the time they finish high school. Indeed, if inhalant use is included in the definition of illicit drug use, over a quarter (28%) have done so as early as 8th grade—when most students are only 13–14 years old. One in four (25%) have used some illicit drug other than marijuana by the end of 12th grade, and 18% of all 12th graders reported doing so during the 12 months prior to the survey.

From the perspective of helping to deter future use, we emphasize the considerable proportions of youth who do not use each of these drugs and who disapprove of their use. The majority (57%) of seniors today made it through the end of high school without ever having tried marijuana, and three quarters (75%) without using an illicit drug other than marijuana. Further, the great majority personally disapprove of using most illicit drugs, as has been true for many years.

Despite the considerable progress made in the past decade, the nation must not be lulled into complacency. To some degree this happened in the early 1990s, after the considerable improvements of the 1980s. Attention to the problem of drug use nearly disappeared from national news coverage, and many governmental and nongovernmental institutions withdrew attention and programmatic support, which likely helped to set the stage for the costly relapse in the drug epidemic during the 1990s.

Prevention Science

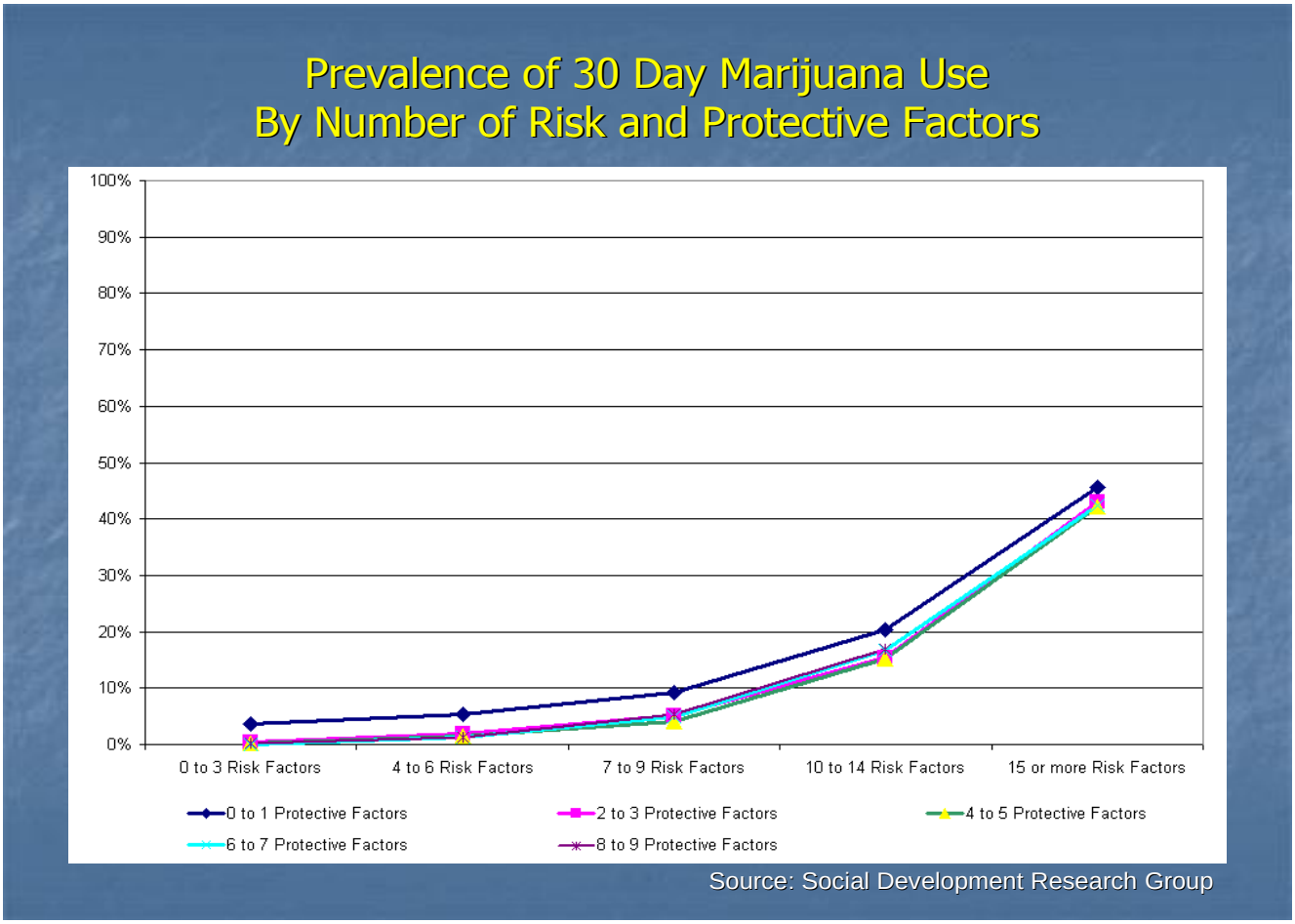
Risk and Protective Factors: Predictors of Use

Over the past thirty years, an entire field of researchers and practitioners has emerged to understand and suppress the demand for alcohol, tobacco and other drugs (ATOD). The good news is that there has been a tremendous amount of progress. We now have evidence from prospective, longitudinal studies of the predictors of substance abuse as well as delinquency, teen pregnancy, school drop-out, violence and depression and anxiety. These predictors, called risk factors, exist in multiple areas of our children's lives, including community, family, school, and peer/individual (see Figure 1).

Figure 1

Predictors of Adolescent Problem Behaviors	Substance Abuse	Delinquency	Teen Pregnancy	School Drop Out	Violence	Depression and Anxiety
Community Domain Risk Factors						
Availability of Drugs (ATOD)	✓				✓	
Availability of Firearms		✓			✓	
Community Laws & Norms Favorable Toward Drug Use (ATOD), Firearms and Crime	✓	✓			✓	
Media Portrayals of Violence					✓	
Transitions and Mobility	✓	✓		✓		✓
Low Neighborhood Attachment and Community Disorganization	✓	✓			✓	
Extreme Economic Deprivation	✓	✓	✓	✓	✓	
Family Domain Risk Factors						
Family History of the Problem Behavior	✓	✓	✓	✓	✓	✓
Family Management Problems	✓	✓	✓	✓	✓	✓
Family Conflict	✓	✓	✓	✓	✓	✓
Favorable Parental Attitudes and Involvement in Problem Behavior	✓	✓			✓	
School Domain Risk Factors						
Academic Failure Beginning in Late Elementary School	✓	✓	✓	✓	✓	✓
Lack of Commitment to School	✓	✓	✓	✓	✓	
Individual/Peer Risk Factors						
Early and Persistent Antisocial Behavior	✓	✓	✓	✓	✓	✓
Rebelliousness	✓	✓		✓		
Friends Who Engage in the Problem Behavior	✓	✓	✓	✓	✓	
Favorable Attitudes Toward the Problem Behavior	✓	✓	✓	✓		
Early Initiation of the Problem Behavior	✓	✓	✓	✓	✓	
Constitutional Factors	✓	✓			✓	✓

Prevention Science



The above graph (Figure 2) demonstrates how youth responded to the question of whether they had used marijuana in the previous month, based upon the number of risk factors in their lives. Those with very few risk factors did not use marijuana (less than 5%), and as the number of risk factors rose, so did the marijuana use (upwards of 45%). **In general, those youth with lots of risk factors will use alcohol, tobacco, and other drugs.** The level of use may be offset somewhat by protective factors, which balance and buffer the risk factors. As such, this becomes an area that we can focus on and strengthen through our prevention efforts. However, research indicates that, overall, risk factors are more influential than protective factors so to be effective, we cannot ignore the risk factors [R4, p. 158].

Prevention Science

Comprehensive Approach

Because of the complex set of circumstances that give rise to substance abuse, there is no silver bullet for ATOD prevention. Rather, research directs us to apply comprehensive approach, which includes:

Assessing and addressing needs
- on a developmental continuum: cradle to grave;
- in every domain: individual, peer, family, school, community, environment;
- through a risk and protective factor approach

Utilizing
- multiple direct service and environmental strategies;
- multiple sector partnerships: state or local government, youth- and family-serving organizations, ATOD service providers, parents, youth, education, research and evaluation, religious and fraternal or civic organizations, health care, business professionals, law enforcement, the media, mental health, public health, juvenile justice, and probation; and
- public and private resources: paid and volunteer.

The following is a primer to help understand some of the key comprehensive prevention planning concepts in more depth.

Snowball/Snowstorm: The Aggregate Influence of Risk Factors

The current state of the science of prevention suggests that risk factors influence the course of a youth's development through their cumulative impact across time. This means that there is no single risk factor that lies at the heart of developmental problems. Rather, these problems can be regarded as having complex causes or multi-determination. The more risk factors that persist over longer periods of time, the greater the subsequent developmental impact.

In one view, the cumulative effect of developmental risk factors operates somewhat like a **snowball**. According to this view, risk factor exposure early in life can impair the course of development and lead to a snowball effect with risk factors in subsequent developmental stages tending to adhere and accumulate as a consequence of the earlier problems. So, for example, a mother's tobacco smoking may impede fetal and early childhood development resulting in cognitive deficits that then lead to poor school adjustment. Poor school adjustment and school behavior problems may lead on to social aggregation (friendships) with other poor school-achieving youth [R1, pp. 58-59].

Some studies suggest that children with a high number of childhood risk factors explain the great majority of children who subsequently progress to illicit drug use [R1, pp. 58-59]. Children who are at highest risk for adolescent drug abuse by virtue of poor family management, early and persistent behavior problems, low bonding to family, academic failure, and low commitment to school may be unmotivated to refuse or avoid drug use by late childhood [R5, p.97].

For children who do not have early life risk exposures, the cumulative effect of risk may be more analogous to a **snowstorm**. Just as a child may survive extreme weather for a brief period, so too a child with few early developmental risks may withstand drug use in the peer group and community for a period. However, if exposure to such influence is maintained over time and across settings, the chances of the child becoming involved in drug use increase [R1, pp. 58-59].

Timing Matters: Developmentally Appropriate Strategies

In order to prevent risk factors from snowballing (or intensely snowstorming), it is important to recognize the developmental points at which they begin to develop and to intervene at or slightly before those points [R6, p. 244].

The results of a 2008 study suggest that relations between risk and protective factors and ATOD outcomes may vary across adolescence. Family and community factors were more salient for younger cohorts (middle school), whereas peer and school domains were more important for older adolescents (high school). These results are consistent with developmental theories that family influences are important in childhood and early adolescence but recede in relative importance as older adolescents spend more unsupervised time with peers.

However, the finding that community domain factors were stronger in the earlier grades is inconsistent with this idea and may indicate that community norms and attitudes toward drug use have more effect on initiation than on progression of usage. National surveys of youth indicate that both self-reported and perceptions of peer substance use increase with age [R4, p. 163].

These findings should encourage us to consider how to maximize our prevention efforts. For example, we should ensure that risk factors are suppressed and protective factors are bolstered in the family domain at or just prior to the middle school years. During this time, we should also pay close attention to how we can increase protective factors in the community domain.

To keep older students from ATOD use, including binge drinking, we would be wise to suppress risk factors in the individual and family domains while increasing protective factors in the school domain at or just prior to the high school years.

We should not believe, however, that prevention is only for children and adolescents. There must be efforts, for example, to discourage adults from drinking at levels that lead to acute and chronic harms. If these efforts are successful, there will be an impact on the adults as well as the younger generation. We would likely see reductions in risk factors such as maternal alcohol use in pregnancy, less child neglect and abuse, and also decreasing adolescent perceptions that alcohol misuse is common [R1, p. 59].

Prevention Science

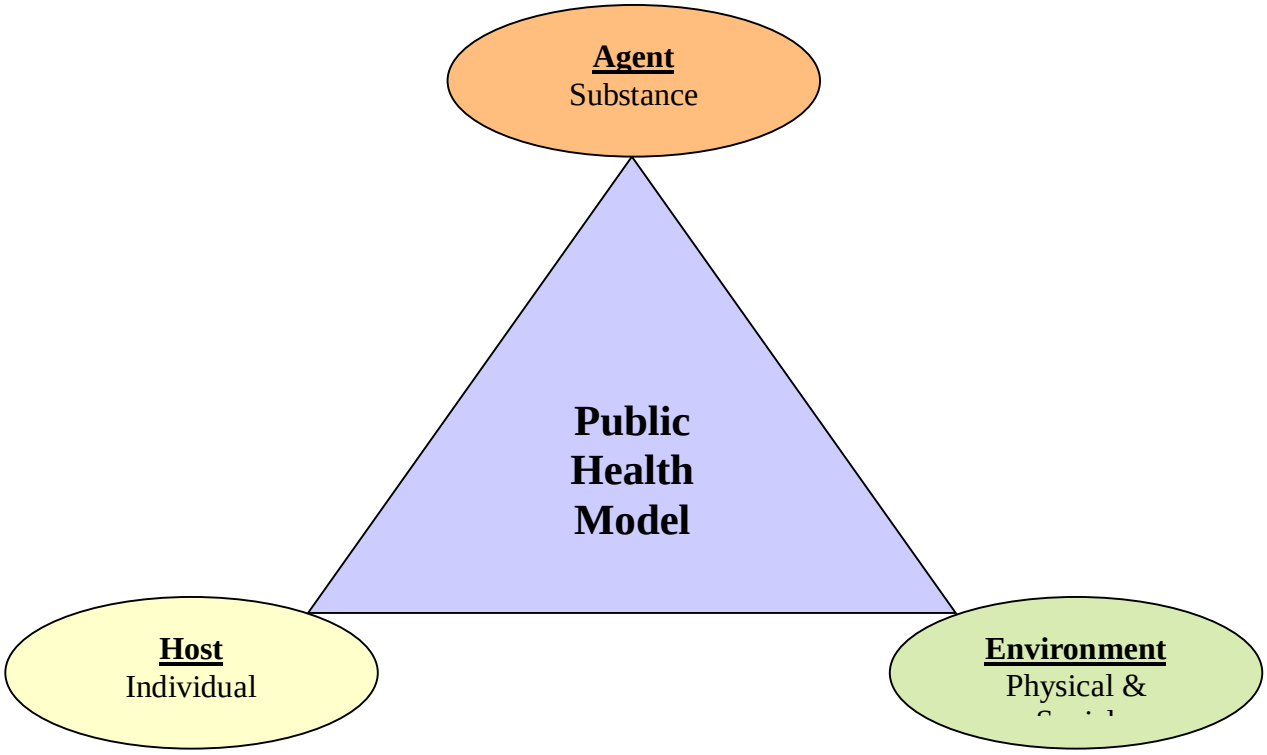
More than Individual Decision-Making: The Public Health Model

There are growing demands for improving prevention outcomes as well as reducing the societal costs of substance abuse consequences. The focus has shifted to achieve changes in whole **populations** rather than focusing exclusively on changes among individuals through programs.

Substance use and abuse can be reduced by addressing the conditions that cause or facilitate its spread; in particular, strategies that target adolescents must impact the root causes and conditions in order to affect a given adolescent's decision to begin using substances. Reducing the initiation and prevalence of substance use by youth, and misuse and abuse by adults can reduce the health, economic, and social consequences experienced by communities.

The public health model is increasingly being utilized to achieve population-level changes. This model can be illustrated by a triangle, with the three angles representing the agent, the host, and the environment. (The agent is the substance, the host is the individual using the substance, and the environment is the social and physical context of use.) A public health model stresses that problems arise through the relationships and interactions among host, agent, and environment.

Substance abuse prevention programs in the past often neglected to deal with the environment, and focused exclusively on inoculating the host through educational efforts, expecting that information on the dangers of ATOD would be sufficient to deter use. However, a public health approach requires not only an understanding of how host, agent, and environment interact, but also must include a plan of action for influencing all three [R7].



Prevention Science

Environmental Prevention: A Key Element of the Public Health Model

Until recently, the principal substance abuse prevention strategies focused on education and early treatment. In this view, education was intended to inform society about the disease of addiction and to teach people about the early warning signs so that they could initiate treatment as soon as possible.

Prevention researchers generally agree that the most effective approach to reducing ATOD problems is through a public health approach that acknowledges the complexity of the interactions contributing to the development of problems. The key to environmental approaches is the acknowledgment that ATOD problems are the result of complex interactions over time. The development of problems is not individually based, but rather the result of behaviors influenced by factors occurring in a variety of environments that contribute to an array of community-level problems.

An environmental strategy establishes or changes written and unwritten community standards, codes and attitudes, thereby influencing incidence and prevalence of substance abuse in the general population [R8]. Strategies directed at the shared environment are efficient because they affect every member of a target population (e.g., removing drug dealers from the front of the high school and training convenience store clerks to check ID's reduces the availability of illicit drugs, alcohol and tobacco for all neighborhood youth). These strategies also tend to produce more rapid results than do strategies aimed at individual environments (e.g., enforcement of the minimum alcohol purchase age or increases in alcohol prices can produce more or less immediate reductions in youth alcohol use, whereas pre-school programs to increase academic readiness and pro-social orientation may take many years to show ATOD-related results).

The focal areas for developing and implementing environmental strategies are: norms, availability, and regulations.

> ***Norms*** are the basic orientations concerning the "rightness or wrongness," acceptability or unacceptability, and/or deviance of specific behaviors for a specific group of individuals (e.g., it is wrong for anyone to use illicit drugs; it is okay for adults to drink in moderation). Norms are the basis for a variety of specific attitudes that support or undermine the particular prevention strategies we may wish to implement.
>
> ***Availability*** is the inverse of the sum of resources (time, energy, money) that must be expended to obtain a commodity (alcohol, marijuana, cigarettes). The more resources required to get something, the lower the availability. Research has shown that when alcohol is more available, the prevalence of drinking, the amount of alcohol consumed, and the heavy use of alcohol all increase [R5, p. 81].

Regulations are the formalized laws, rules, and policies that serve to control availability and codify norms and that specify sanctions for violations. They may be instituted by governments, public agencies (e.g., police departments, school systems), or private organizations (e.g., HMO's, hospitality establishments, convenience stores). Alcohol consumption is affected by price, specifically the amount of tax placed on alcohol at purchase. Research has found that increases in taxes on alcohol have led to immediate and sharp decreases in liquor consumption and cirrhosis mortality [R5, p. 65].**Attention to the laws and norms of society related to the use of ATOD is clearly warranted, given the link between these factors and the rates of alcoholism and drug abuse. If reduction of the prevalence of substance abuse is the goal, the evidence does <u>not</u> support those who advocate the legalization of currently illegal drugs such as marijuana and cocaine. Rather, the evidence supports efforts to limit behavior that is inconsistent with existing legal sanctions [R5, p.88].**

The probability that an undesirable behavior will be decreased can be predicted to the extent that:

1) there exist regulations that discourage the behavior,

2) community norms disapprove of the behavior, and

3) the commodities needed to engage in the behavior are not easily available.

Norms, regulations, and availability are characterized as "playing leap-frog" because generally, the three areas cluster together around individual issues. Norms, regulations, and availability are interdependent and mutually supportive; they constitute stable systems that are tightly interwoven. A change in any one of these factors will cause changes in the other two. As norms (or availability or regulations) change, they tend to pull the other factors along with them. However, it is a conservative "game," and no single factor can change too much or too quickly without experiencing a backlash. For example, rarely does a society demonstrate norms that favor a particular behavior yet regulate against that behavior and restrict its access. However, one of these areas needs to be pushed in the right direction for the others to follow suit, and the others must also be appropriately coaxed and supported.

If a regulation is put into place before a community's values are aligned with that regulation, there is a good chance that the regulation will fail unless tremendous efforts are made to modify the community's opinions. California's smoke-free bars and restaurants initiative is an excellent example of why it is important to move all three areas – norms, regulations and availability – along at more or less the same speed. The strongest prevention approaches will derive from considering norms, regulations, and availability as a package and will acknowledge that a strategy aimed at any one of these components should be viewed as an entry point into a systems consideration of all three [R9].

Other tangible examples of environmental strategies include addressing tobacco and alcohol costs, establishing and enforcing a minimum purchase age, acceptable blood alcohol levels, the location

and density of retail outlets, keg registration, social host ordinances, restrictions on smoking, alcoholic beverage server orientations and counter-advertising campaigns [R8].

In the 1980s, all US states adopted a uniform 21 minimum age (up from 18), providing a natural test of the effectiveness of minimum purchase age laws in reducing youth alcohol use and problems. Substantial decreases in alcohol purchases among underage drinkers were demonstrated, with reductions in drinking and driving and fatal crashes. Conversely, decreasing the minimum legal drinking age, not surprisingly, has been found to increase drinking and related problems among youth, including use and crashes. Analyses of 24 published studies that assessed the effects of changes in the legal minimum drinking age on other health indicators also showed reductions in suicide, homicide, and vandalism. These analyses led the authors to conclude that, **compared to a wide range of other programs and efforts to reduce drinking among young people, increasing the legal age for purchase and consumption of alcohol to 21 appears to have been the most effective strategy.**

Even with these higher minimum drinking age laws, young people can and do purchase alcohol. Such sales result from low and inconsistent levels of enforcement, especially when there is little community support for underage alcohol sales laws. However, even moderate increases in enforcement can reduce sales of alcohol to minors by as much as 35% to 40%, especially when combined with media and other community and policy activities [R1, pp. 352-353].

In general, environmental strategies for alcohol and smoking have scientific evidence of **effectiveness**. On average, policy development is likely to be **lower in cost** than specially-funded local educational prevention programs which require an ongoing investment in staff, materials, and other resources. Policies directed at the environment have a **longer potential effective life**, once implemented, than prevention programs that must be maintained and thus funded each year.

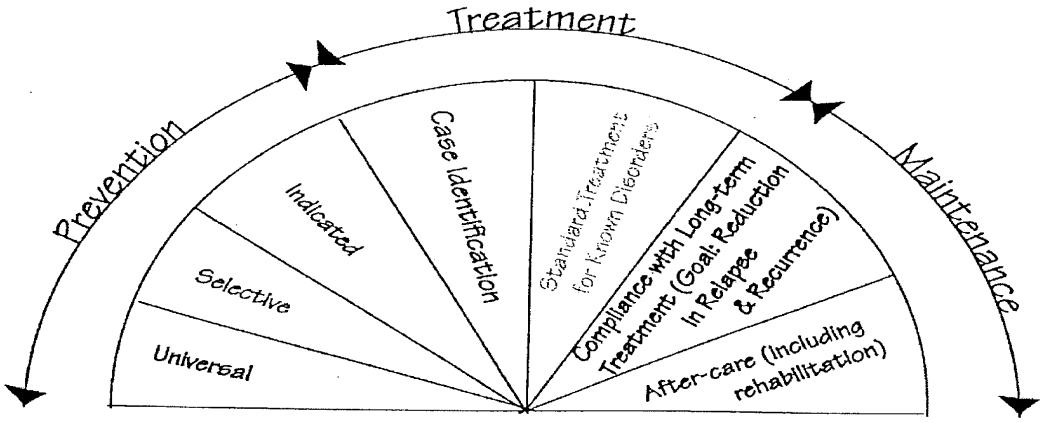
However, effective implementations of environmental strategies confront two major difficulties. First, they are often controversial and thus politically difficult to implement, especially for alcohol and tobacco, which have legal retail markets. There must be political will and public support for such strategies. Second, environmental strategies, especially those conducted at the community level, often do not provide the level of immediate public satisfaction and personal reward to program staff that educational or service strategies provide. This can mean that environmental strategies may not be as attractive to community members, especially volunteers [R1, p. 360].

If this is the case, the community must be educated about effective prevention and involved in a way that is meaningful to them. Strategies that address both individualized environments and the shared environment are important components of a comprehensive approach to prevention [R9]. As such, there are many opportunities for community members to be included in making those changes.

Prevention Science

Institutes of Medicine Continuum of Care

The Institutes of Medicine (IOM) have adopted a model for the substance abuse field that illustrates the full spectrum of services, from prevention services for the uninitiated to after-care services for those working to maintain their sobriety, and all points in between. The IOM model is useful because it helps us visualize the entire continuum of care – offering an opportunity to both focus services and to understand the range of partnerships required if the entire community is to be served. Within the range of prevention services on the IOM model, three tiers of intervention are identified: universal, selective and indicated.



Universal - the entire population, without regard to group- or individual-level risks. Interventions are broad-based, generally focusing on awareness and information, or if well-resourced, skill-building. Most environmental strategies also impact the entire population as they alter the societal norms, availability and regulations related to ATOD or otherwise shift the dynamics of the environment, making it less conducive to the development of ATOD risks.

Selective - groups that are at high risk, without regard to the specific risk level of the individuals within those groups (e.g., youth in foster care or children of substance abusers). These individuals would be targeted by virtue of their membership in a vulnerable group.

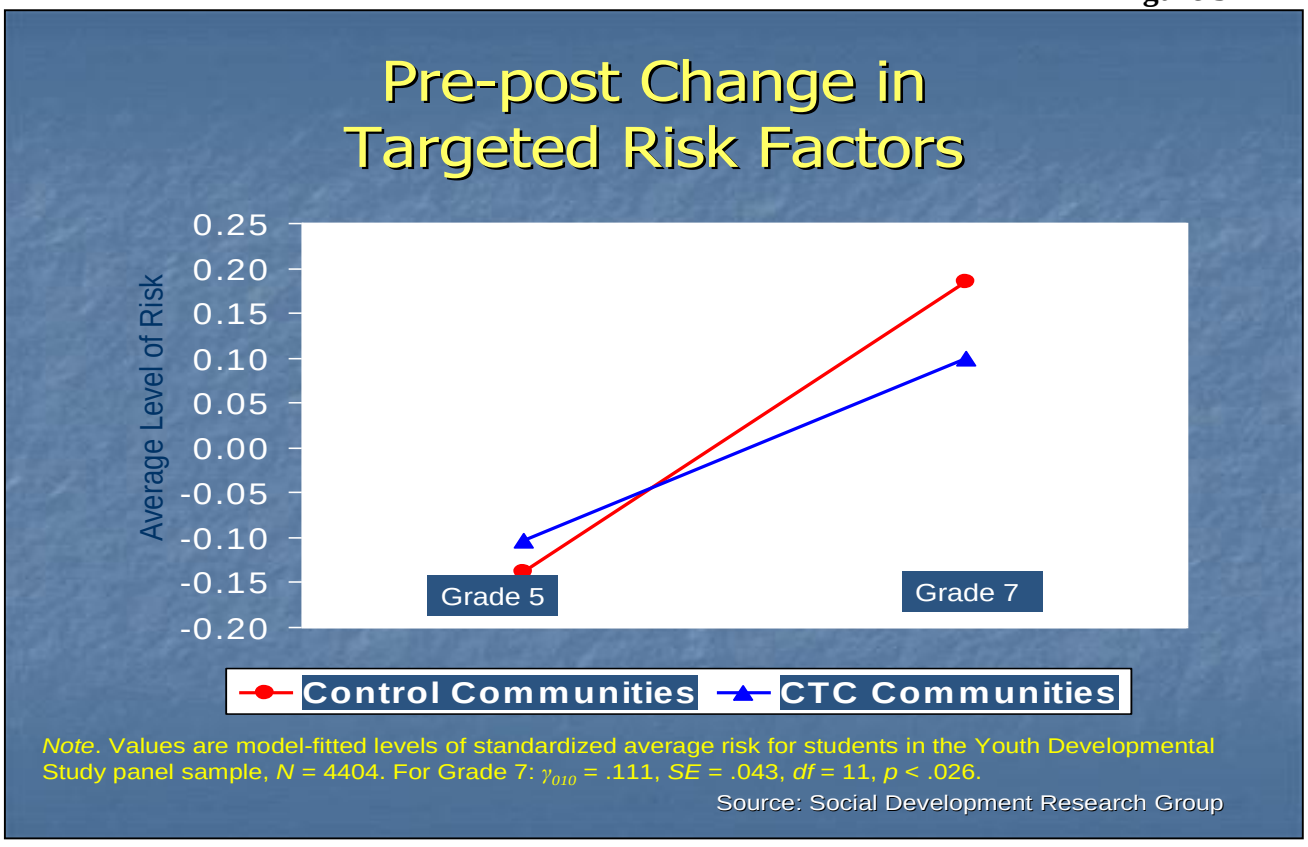
Indicated - reserved for individuals that have begun to engage in the problem behavior, exhibiting early signs or consequences of use, but do not meet the recognized criteria for addiction. Interventions for selective and indicated populations include strategies such as prenatal and early childhood nurse home visitation, family strengthening programs, mentoring, student assistance programs, brief intervention, and motivational interviewing.

Intervening to Prevent Substance Abuse Before it Starts

The use of any substance, whether legal or illegal, early in adolescence is a reliable predictor of more intense and problematic substance use disorders in young adulthood. Thus, preventing the initiation of alcohol and other drug use during early adolescence by addressing risk and protective factors salient during this developmental period is a viable approach for preventing later ATOD abuse and dependence [R10, p. 954-955].

Regardless of the intervention, we can expect to see risks increase as youth get older, particularly during critical transitions such as moving from elementary school to middle school. However, **these risks are malleable to intervention.** In Figure 3, the red line represents control communities, or those without a concerted intervention. The blue line represents those communities that have a coalition structure in place.. The difference between the rate at which the risk levels rise is significant; therefore, **it is critical to lower risk levels in order to lower future substance abuse.**

Figure 3



Prevention Science

The intent of **primary prevention**, which is largely associated with the universal population but to some extent also members of selective groups, is to **prevent use entirely, or at least delay use until an older age** (recall that ATOD use at a young age is a major risk factor for later substance dependence). The advantage to implementing primary prevention strategies is that they prevent future substance abuse, saving the human and economic costs associated with managing substance abuse problems once they have been initiated. The disadvantage to this approach is that it may not reduce *current* rates of substance use/abuse.

For example, a highly effective primary prevention strategy is to utilize trained nurses to do home visitation with mothers during their pregnancy and child's first two year of life. These children are less likely to abuse substances when they come of age than their counterparts whose mothers did not receive home visitation – at age 15 experiencing 56% fewer days of alcohol consumption [see http://www.colorado.edu/cspv/blueprints/modelprograms/NFP.html for the complete list of outcomes]. The ATOD rates of their community would not drop, however, until the children came of age, and only then if there were significant enough saturation of the program throughout the community to meaningfully impact those rates.

Compare this primary prevention program with a strategy designed to reach youth that have already initiated use (indicated population). AIM is designed to reach high-risk teens who for the most part have found themselves in trouble at school or with the juvenile justice system. These teens are thoroughly assessed, provided with assistance in developing a treatment plan and referred to appropriate services. Because most of these teens are already using substances, helping them stop or cut back on their use will immediately reduce ATOD rates, once again with the assumption that there is a significant enough saturation of the program throughout the community to meaningfully impact those rates.

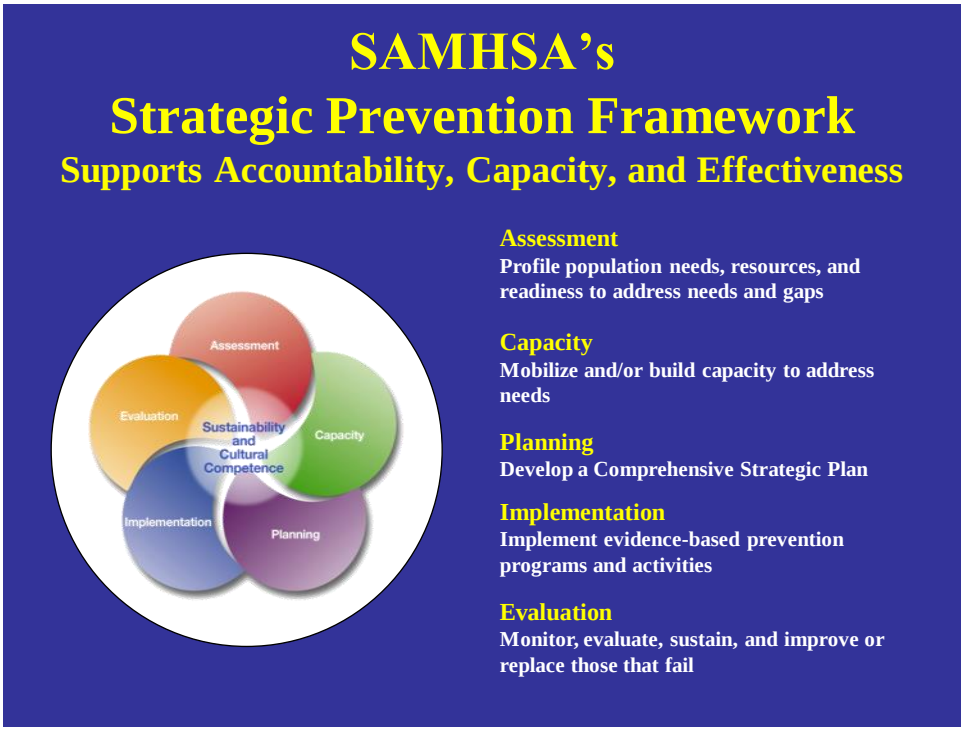
As a means of impacting current *and* future rates while also effectively addressing the question of saturation, a number of prevention planners are turning to environmental strategies. Raising taxes or age requirements on alcohol and tobacco, for example, curbs both current use and future use because it restricts availability for current and future consumers. Likewise, mandating keg registration or enacting and enforcing social host ordinances will have the same effect.

Illicit drugs are the least prominent substances used, allowing us to truly capitalize on risk profiles to identify vulnerable individuals and groups and to match them with appropriate direct services. In relation to alcohol and tobacco, however, risky patterns of use are virtually normative among young people and a total population approach to prevention is touted by some researchers as being more appropriate [R1, p. 23].

Prevention Science

Getting There

The Strategic Prevention Framework (SPF) is a planning approach recommended by the federal Substance Abuse and Mental Health Services Administration (SAMHSA). The RRC and its City Teams have been trained in this approach and the RRC is broadly utilizing it to guide the coalition's planning efforts.



Data Collection and Analysis

The SPF emphasizes the power and importance of collecting and analyzing local data prior to making programmatic decisions. The SPF does not make specific recommendations for data sources. The California Healthy Kids Survey, which is currently administered every other year in middle and high schools, is limited by the amount of risk and protective factor data it collects. Without sufficient survey data, proxy indicators must be used, which are costly and time-consuming to collect and can compromise the quality of interpretation.

Thus, based on the student survey data, neighborhood-level profiles can be used to assist prevention planners in the identification of elevated risk factors and depressed protective factors within a community, which can then be addressed through science-based preventive interventions focused specifically on those factors [R6, pp. 246-248]. A study of 41 communities found significant variation between the communities both in levels of risk and protective factors and in prevalence of substance use, underscoring the importance of using **local data** to drive decisions [R12].

Prevention Science

RISK FACTORS

Community Domain Risk Factors	
Community and Personal Transitions & Mobility	Neighborhoods with high rates of residential mobility have been shown to have higher rates of juvenile crime and drug selling, while children who experience frequent residential moves and stressful life transitions have been shown to have higher risk for school failure, delinquency, and drug use.
Community Disorganization	Research has shown that neighborhoods with high population density, lack of natural surveillance of public places, physical deterioration, and high rates of adult crime also have higher rates of juvenile crime and drug selling.
Low Neighborhood Attachment	A low level of bonding to the neighborhood is related to higher levels of juvenile crime and drug selling.
Laws and Norms Favorable Toward Drug Use (ATOD)	Research has shown that legal restrictions on alcohol and tobacco use, such as raising the legal drinking age, restricting smoking in public places, and increased taxation have been followed by decreases in consumption. Moreover, national surveys of high school seniors have shown that shifts in normative attitudes toward drug use have preceded changes in prevalence of use.
Perceived Availability of Drugs (ATOD) and Handguns	The availability of cigarettes, alcohol, marijuana, and other illegal drugs has been related to the use of these substances by adolescents. The availability of handguns is also related to a higher risk of crime and substance use by adolescents.
Extreme Economic Deprivation	Children who live in areas of extreme poverty, poor living conditions and high unemployment are more likely to develop risk behaviors. Children who have problems early in life are more likely to have problems with drugs later in life
Family Domain Risk Factors	
Family History of Antisocial Behavior	When children are raised in a family with a history of problem behaviors (e.g., violence or ATOD use), the children are more likely to engage in these behaviors.
Family Conflict	Children raised in families high in conflict, whether or not the child is directly involved in the conflict, appear at risk for both delinquency and drug use.
Parental Attitudes Favorable Toward Antisocial Behavior & Drugs	In families where parents use illegal drugs, are heavy users of alcohol, or are tolerant of children's use, children are more likely to become drug abusers during adolescence. The risk is further increased if parents involve children in their own drug (or alcohol) using behavior, for example, asking the child to light the parent's cigarette or get the parent a beer from the refrigerator.

Poor Family Management	Parents' use of inconsistent and/or unusually harsh or severe punishment with their children places them at higher risk for substance use and other problem behaviors. Also, parents' failure to provide clear expectations and to monitor their children's behavior makes it more likely that they will engage in drug abuse whether or not there are family drug problems.
School Domain Risk Factors	
Academic Failure	Beginning in the late elementary grades (grades 4-6) academic failure increases the risk of both drug abuse and delinquency. It appears that the experience of failure itself, for whatever reasons, increases the risk of problem behaviors.
Low Commitment to School	Surveys of high school seniors have shown that the use of hallucinogens, cocaine, heroin, stimulants, and sedatives or non-medically prescribed tranquilizers is significantly lower among students who expect to attend college than among those who do not. Factors such as liking school, spending time on homework, and perceiving the coursework as relevant are also negatively related to drug use.
Peer-Individual Risk Factors	
Early Initiation of Antisocial Behavior and Drug Use	Early onset of drug use predicts misuse of drugs. The earlier the onset of any drug use, the greater the involvement in other drug use and the greater frequency of use. Onset of drug use prior to the age of 15 is a consistent predictor of drug abuse, and a later age of onset of drug use has been shown to predict lower drug involvement and a greater probability of discontinuation of use.
Attitudes Favorable Toward Antisocial Behavior and Drug Use	During the elementary school years, most children express anti-drug, anti-crime, and pro-social attitudes and have difficulty imagining why people use drugs or engage in antisocial behaviors. However, in middle school, as more youth are exposed to others who use drugs and engage in antisocial behavior, their attitudes often shift toward greater acceptance of these behaviors. Youth who express positive attitudes toward drug use and antisocial behavior are more likely to engage in a variety of problem behaviors, including drug use.
Friends' Use of Drugs	Young people who associate with peers who engage in alcohol or substance abuse are much more likely to engage in the same behavior. Peer drug use has consistently been found to be among the strongest predictors of substance use among youth. Even when young people come from well-managed families and do not experience other risk factors, spending time with friends who use drugs greatly increases the risk of the problem developing.

Prevention Science

Interaction with Antisocial Peers	Young people who associate with peers who engage in problem behaviors are at higher risk for engaging in antisocial behavior themselves.
Perceived Risk of Drug Use	Young people who do not perceive drug use to be risky are far more likely to engage in drug use.
Rewards for Antisocial Behavior	Young people who receive rewards for their antisocial behavior are at higher risk for engaging further in antisocial behavior and substance use.
Rebelliousness	Young people who do not feel part of society, are not bound by rules, don't believe in trying to be successful or responsible, or who take an active rebellious stance toward society, are at higher risk of abusing drugs. In addition, high tolerance for deviance, a strong need for independence and normlessness have all been linked with drug use.
Sensation Seeking	Young people who seek out opportunities for dangerous, risky behavior in general are at higher risk for participating in drug use and other problem behaviors.
Intention to Use ATOD	Many prevention programs focus on reducing the intention of participants to use ATOD later in life. Reduction of intention to use ATOD often follows successful prevention interventions.
Depressive Symptoms	Young people who are depressed are overrepresented in the criminal justice system and are more likely to use drugs. Survey research and other studies have shown a link between depression and other youth problem behaviors.
Gang Involvement	Youth who belong to gangs are more at risk for antisocial behavior and drug use.

Prevention Science

PROTECTIVE FACTORS

Community Domain Protective Factors	
Opportunities for Positive Involvement	When opportunities are available in a community for positive participation, children are less likely to engage in substance use and other problem behaviors.
Rewards for Positive Involvement	Rewards for positive participation in activities helps children bond to the community, thus lowering their risk for substance use.
Family Domain Protective Factors	
Family Attachment	Young people who feel that they are a valued part of their family are less likely to engage in substance use and other problem behaviors.
Opportunities for Positive Involvement	Young people who are exposed to more opportunities to participate meaningfully in the responsibilities and activities of the family are less likely to engage in drug use and other problem behaviors.
Rewards for Positive Involvement	When parents, siblings, and other family members praise, encourage, and attend to things done well by their child, children are less likely to engage in substance use and problem behaviors.
School Domain Protective Factors	
Opportunities for Positive Involvement	When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in drug use and other problem behaviors.
Rewards for Positive Involvement	When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in substance use and other problem behaviors
Peer-Individual Protective Factors	
Religiosity	Young people who regularly attend religious services are less likely to engage in problem behaviors.
Social Skills	Young people who are socially competent and engage in positive interpersonal relations with their peers are less likely to use drugs and engage in other problem behaviors.
Belief in the Moral Order	Young people who have a belief in what is “right” or “wrong” are less likely to use drugs.
Prosocial Involvement	Participation in positive school and community activities helps provide protection for youth.
Prosocial Norms	Young people who view working hard in school and the community are less likely to engage in problem behavior.
Involvement with Prosocial Peers	Young people who associate with peers who engage in prosocial behavior are more protected from engaging in antisocial behavior and substance use.

Prevention Science

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PS2	*MEASURING RISK AND PROTECTION IN COMMUNITIES USING THE COMMUNITIES THAT CARE YOUTH SURVEY,* ARTHUR, ET AL., 2007
PS3	MONITORING THE FUTURE WEBSITE
PS4	*THE ROLE OF RISK AND PROTECTIVE FACTORS IN SUBSTANCE USE ACROSS ADOLESCENCE,* CLEVELAND, ET AL., 2008
PS5	*RISK AND PROTECTIVE FACTORS FOR ALCOHOL AND OTHER DRUG PROBLEMS IN ADOLESCENCE AND EARLY ADULTHOOD: IMPLICATIONS FOR SUBSTANCE ABUSE PREVENTION,* HAWKINS, ET AL., 1992
PS6	*BRIDGING THE GAP BETWEEN SCIENCE AND PRACTICE IN DRUG ABUSE PREVENTION THROUGH NEEDS ASSESSMENT AND STRATEGIC COMMUNITY PLANNING,* ARTHUR, M. W., & BLITZ, B., 2000
PS7	*COMMUNITY VARIATION IN RISK AND PROTECTIVE FACTORS AND SUBSTANCE USE OUTCOMES,* HAWKINS, ET AL., 2004
PS8	WESTCAPT WEB SITE
PS9	TAGLEWOOD RESEARCH WEB SITE
PS10	*PROMOTING SCIENCE-BASED PREVENTION IN COMMUNITIES,* HAWKINS, ET AL., 2002
PS11	*THIS LINE WAS INTENTIONAL LEFT BLANK*
PS12	SAMHSA'S CAPT WEBSITE

Sustainability

Highlights

- Sustainability planning must occur at the beginning of any prevention effort.
- Research demonstrates a link between sustainability and eight factors. Each of these factors should be incorporated in a sustainability plan.
- As part of the Drug Free Communities grant, CALY will need to develop a sustainability plan for the coalition.

Introduction

It has always been challenging for prevention providers to achieve some level of sustainability for their prevention efforts once initial funding for that effort has ended. In today's economic environment, resources necessary to sustain prevention efforts have become even more scarce and problematic. Although funding remains an essential contributor to sustainability, it is by no means the only avenue that should be addressed.

The research on sustainability overwhelmingly supports certain factors for increasing the likelihood a prevention effort or structure can be sustained. Too often sustainability becomes an issue when funding is about to end. By this point, it can be too difficult to properly incorporate the sustainability factors in the effort. Therefore, these factors should be utilized throughout the planning process. This includes all phases of planning such as needs assessment, program design, implementation and evaluation. Lastly, a written plan, with alternative strategies for sustainability also creates additional opportunities to build capacity.

This section is designed to provide an overview of the major factors that contribute to sustainability. In it you will find excerpts from several studies on sustainability. However, it is not intended to be a formal literature review. Rather, it is a research document based on a review of several important studies on sustainability. **The findings from this review culminate with the identification of eight major factors contributing to sustainability.**

Sustainability

Definitions

To start, let's define what we mean by **capacity building**, as the factors contributing to sustainability can be viewed as capacity-building elements*:*

Capacity Building is an approach to development that seeks to enhance the potential that programs will be sustainable. It includes the nurturing of and building upon the strengths, resources and problem-solving abilities already present in individuals and communities [SU1, SU2].

Sustainability is the continued ability of an innovation[1] to meet the needs of its stakeholders. [SU3]

Eight Major Factors Influencing Sustainability

1. Champions and Leaders

2. Organizational Fit

3. Community Support

4. Collaboration

5. Demonstrated Success

6. Adaptable Programming

7. Competence

8. Resources

[1] Please note that the term "innovation" can be defined as any form of a prevention effort such as a coalition structure, services, programs or process.

Sustainability

1. Champions and Leaders

Research repeatedly points to the importance of champions and leaders in the sustainability process. Elements supporting this sustainability factor include:

Create Supportive Environments - Formal and informal leaders within adopting systems, as well as champions who proactively promote an innovation from inside or outside of a system, are critical to creating an environment that supports and facilitates sustaining innovations [SU4].

Access Resources - One study suggests that communities are more likely to receive state assistance once federal funding for programs ends when key community leaders show their support [SU4].

Diffusion of Prevention Efforts - Diffusion is to what extent your prevention efforts are spread throughout your target area. It is important to nurture the role of leaders inside and outside the prevention service delivery system in promoting diffusion and, ultimately, sustainability.

Facilitates Integration (into a community or organization) - Administrative leaders who seek to understand and foster integration of the innovation, to facilitate those who must implement the innovation to assume a leadership role, and to develop a partnership to resolve problems that inhibit integration are essential to sustaining innovations. Integration is how well embedded your efforts are in a community or organization.

Act as Brokers – Champions and leaders can serve as brokers on behalf of the innovation with other decision makers.

2. Organizational Fit

Studies show the "fit" of a new program within the existing organizational mission and/or its standard operating procedures as a key influence on sustainability [SU5]. Fit is characterized by the following:

Mission and Values Align with Effort - Project activities that can be "sold" as contributing to the organization's goals are more likely to receive internal support and even resources that allow them to be sustained.

Leadership and Staff Commitment - The importance of leadership and staff who are committed and are strategically placed within an organization to advocate effectively for the effort promotes sustainability.

Internal Skills & Resources - Strong administrative structures, as a part of a plan to sustain a community-based program, will empower and enable better management.

Integrate Programming – "Vertical" (i.e., stand alone or self-contained) programs are less likely to be sustained than programs that are well integrated with existing systems, although it seems to help initial implementation but not long-term sustainability. The maintenance of program activities without special external funding is most likely to occur if the program components become embedded into organizational processes. Project activities that can readily fit into existing tasks and procedures are more likely to have the support of operating staff.

Secure Additional Outside Resources - Equal numbers of studies found that organizations and community supporters played a key role in helping secure resources and mobilizing support for continuation.

3. Community Support

When projects enlist support from the community, project activities are more likely to be sustained.

Collective Action - Lasting widespread change is more likely if a broad range of providers, institutions, community groups and private citizens are jointly involved.

Access Resources - Even the poorest of communities have resources and focusing on communities' strengths rather than deficits is a more fruitful avenue. "Community" can be viewed as the basic context for enabling people to contribute their gifts.

Promoting A Sense of Ownership - An influence on sustainability is through the process of promoting a sense of ownership of the program. The capacity for an effort's reversal should not be underestimated when it remains contested in the community.

4. Collaboration

Research at both the community and state levels identifies collaboration among agencies or partners as an important factor for facilitating sustainability.

Passive to Active Participation - Goal is to "transform individuals from passive recipients of services to active participants in a process of community change" to solve health issues.

Help One Another to Be Successful - Linkages should facilitate cooperation among diverse agencies or organizational units responsible for the effective and ongoing implementation of the innovation.

Solve Systematic Problems - In multi-sector collaboration, private, public, and nonprofit organizations from different parts of the community form a partnership to solve systemic problems in a community such as substance abuse.

Sustainability

5. Demonstrate Success

Evaluation plans should be developed early and used to demonstrate program effectiveness, inform program modification, and disseminate program successes to key stakeholders and potential funders.

Perceived Benefits and Effectiveness - When staff members or key stakeholders can perceive benefits to themselves and/or to clients, a program is more likely to be sustained even if these benefits are not confirmed by research or evaluation. In research studies, it was the reputation for effectiveness and not objective evidence that was important for sustainability. ***However, a program is only worth sustaining if it can be shown to be effective.***

Foundation for Future Support - Program monitoring and evaluation data are useful in serving the needs of the program with regard to indexing success but also in terms of enlisting future support for a program.

6. Adaptable Programming

Prevention efforts that have the ability to adapt to changing community needs are more likely to be sustained. A number of studies suggest that, regardless of the capacity of the organization to support the continued implementation of the innovation, the innovation is not likely to be sustained if it does not meet the needs of intended users. A basic reason programs survive is they adapt themselves to their environment over a long period of time.

7. Competence

In many studies, competence is correlated to sustainable efforts. A complement of skills and experience can better address opportunities and challenges facing a prevention effort's planning, development, implementation and evaluation.

Broad Complement of Skills - State agencies, communities, and community-based organizations need a broad complement including knowledge of needs assessment, logic model construction, selection and implementation of evidence-based prevention interventions, fidelity assessment, and staging intervention components.

Community, Leaders and Champions, and Staff - One study gained insight into the value of sustainability as capacity building of the community through training and skill building of community members. The literature suggests that community participation enhances community ownership; in turn, ownership leads to increased competence and promotes program maintenance. In addition, training can enhance leaders' and champions' leadership skills.

Knowledge Sharing - Projects with training (professional and paraprofessional) components are more likely to be sustained than those without: those trained can continue to provide benefits, train others and form a constituency in support of the program.

Sustainability

8. Resources

Human, social and material resources are vital to any prevention effort. Although certain levels of stable monetary resources are vital for sustainability, there are other options as well.

Diverse, Sustained and Adequate Funding - The sustainability literature points to the importance of adequate and stable funding in acquisition of diverse funding schemes such as fund-raising through grants, taxes, channeling funds to the implementing agency rather than through a brokering agency, and use of both local funding and non-local funding sources (e.g., federal). It is apparent that successfully sustaining a program requires that the search for additional funding is an ongoing activity.

Alternative Mechanisms for Resources - Sustained prevention efforts utilize a greater number of resource strategies than do short-lived efforts. Over time, a greater number of important sustainability mechanisms are employed – in particular, those that involve community support, expanded funding sources, and program expansion.

Funding is only one resource among many that are needed; other resources needed to sustain a system include human, physical, technological, and informational resources. In regard to human resources, functions required to administer the innovation must be carried out by an adequate number of qualified, committed staff.

It has also been found that voluntary staffing can be an important sustainability mechanism. Although volunteers must be recruited and managed, they are still a highly efficient use of human resources. They often carry the additional benefit of being motivated to improve their communities and serve as ambassadors on behalf of the effort.

Further, technology and data resources are critical to generate information that informs needs assessment, and it is important to have evaluation data that provides effectiveness feedback to the system

Sustainability

Endnotes:

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The Role of Prevention in a Trauma-Informed Approach to Wellness

Introduction

Prevention interventions aim to avoid substance abuse and dependency thereby reducing adverse health and social consequences. Many prevention interventions are focused on middle and high school students with the hope that risk factors can be reduced before they manifest into risky behaviors such as substance abuse and dependency.

Now a movement is bringing awareness to certain adverse childhood experiences, collectively known as traumas that can contribute to developing risky behaviors in adolescence and adulthood. The Substance Abuse and Mental Health Services Administration (SAMHSA) defines trauma as the results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening, with lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being.

Trauma is a widespread, harmful, and costly public health problem. It occurs as a result of violence, abuse, neglect, loss, disaster, war, and other emotionally harmful experiences. Trauma has no boundaries with regard to age, gender, socioeconomic status, race, ethnicity, geography, or sexual orientation. Most people that suffer from mental and substance abuse disorders experience or have experienced trauma.[i]

More communities are adopting a ***trauma-informed approach*** to prevent and treat the effects of trauma on individual health outcomes, including those caused by substance abuse and dependence. Using a trauma-informed approach for the delivery of behavioral health services includes: 1) an understanding of trauma; 2) an awareness of the effects has across settings, services, and populations; 3) viewing trauma through an ecological and cultural lens; and 4) recognizing that context plays a significant role in how individuals perceive and process traumatic events, whether acute or chronic. [ii]

A mindset change for substance abuse prevention is possible once the significance of trauma is realized. ***The interpretation shifts from "something is wrong with this individual" to "something wrong has happened to this individual that challenged his or her resilience."*** This mindset views individuals' problematic behaviors, and emotions as adaptations that enabled them to survive past trauma. [iii]

This section defines and introduces the key components of a trauma-informed approach and how it is different from current prevention and treatment efforts. It provides necessary references, background, and tactics for implementing this approach in your community.

The Role of Prevention in a Trauma-Informed Approach to Wellness

What is Trauma?
SAMSHA has delineated the three "E's" of trauma: **E**vent(s), **E**xperience of the event(s), and **E**ffect.[iv]

Event(s)

An ***event***, or a series of events, is a situation or circumstance that has occurred and caused a person to feel very threatened.[v] The event(s) may occur once or may continue over a sustained period of time.

Experience of the Event(s)

The individual's ***experience*** of these events or circumstances helps to determine whether it is a traumatic event.[vi] It's important to understand that what may be a traumatizing experience to one person may not be to another. How events are experienced by individuals can be influenced by their cultural beliefs, the availability of social supports, or their developmental stage.[vii] Factors that promote resiliency have the power to reduce how traumatic an event is experienced and avert any dire consequences that a child might suffer later in life. For example, a loving caregiver who recognizes the impact of potentially traumatic events on a young child and intervenes on the child's behalf can provide emotional, advisory, and adult support that can reduce traumatic experiences that the child may experience.

Interrelated threatening events can build on one another and compound the experience of trauma. For instance, a parent who uses substances to self-medicate may create traumatic experiences for a young child. The child may be further traumatized if the substance abuse results in other family dysfunctions such as child maltreatment, divorce, and financial problems.

Effects

The ***effects*** of trauma can manifest as long-lasting in a child's life. The initial effect of an event may occur immediately while others may occur later. Many times, an individual will not correlate the connection between adult behaviors and health outcomes with early childhood trauma and avoid seeking substance abuse treatment for those traumas.

Types and Causes of Trauma
Traumatic events come in many forms. Neglect is the most common form of abuse reported to child welfare authorities. Neglect is the failure to provide an individual with basic needs such as food, clothing, shelter, medical or mental health treatment. Neglect also includes exposure to dangerous and/or unhealthy environments, abandonment, or expulsion from home.

Other kinds of abuse are also potential traumas. Sexual abuse or assault includes unwanted or coercive sexual contact, exposure to age-inappropriate sexual material or environments, and sexual exploitation. Physical abuse or assault is the actual or attempted infliction of physical pain including the use of severe corporeal punishments. Psychological maltreatment includes verbal abuse, emotional abuse, excessive demands or expectations, or intentional social deprivation.

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Historical trauma affects entire communities and refers to cumulative emotional and psychological wounds transmitted across generations, often involving unresolved grief and anger and in many cases, associated with racial and ethnic groups who have suffered major intergenerational losses and assaults on their culture and well-being.

Other forms of trauma include natural disasters, war, military deployments, motor vehicle crashes, and the loss of loved ones. Additionally, system-induced trauma can be experienced by individuals and families involved in child welfare, mental health, and other systems of care that are designed to help, but inflict harm unintentionally.

Trauma's Influence on Cognitive and Executive Functioning and Disruptions of the Body's Stress Response

Over the past twenty-five years, neuroscience has given us an understanding of how genetics, early childhood experiences with caregivers, and the environment can have a long-lasting impact, for better or worse, on a child's developing brain. These advances in neuroscience have begun to delineate the mechanisms in which neurobiology, psychological processes, and social attachment interact and contribute to mental and substance use disorders across the life-span.[viii,ix]

Part of childhood is coping with stressful events. When we are threatened, our bodies activate a variety of physiological responses, including increases in heart rate, blood pressure, and stress hormones such as cortisol.[x] These survival responses (sometimes referred to as fight, flight, and freeze) protect or buffer us from the threat. When children have connections with caring adults, the child's response systems can return to normal. This form of resiliency helps children cope with trauma.

Traumatized children tend to respond to the world as a dangerous place by activating the neurobiological systems geared for survival even when they are safe.[xi] These traumatized children have experienced strong, frequent, or prolonged adverse experiences such as extreme poverty or repeated abuse without adult support. The stress from these experiences becomes toxic as excessive cortisol disrupts developing brain circuits.[xii] Toxic stress experienced early in life can have a cumulative toll on an individual's physical and mental health.[xiii]

The more adverse experiences in childhood, the greater the likelihood of developmental delays and other problems. Adults with more adverse experiences in early childhood are also more likely to have health problems including alcoholism, depression, heart disease, and diabetes. [xiv]

The Role of Prevention in a Trauma-Informed Approach to Wellness

Health Consequences from Trauma

Health consequences from trauma are significant as we consider the nature, scope, harm, and influence on risk behaviors, including substance use, abuse, and dependence. The link between early childhood traumas, health behaviors, and health outcomes is supported by substantial documentation in scientific literature. In the case of trauma caused by child maltreatment, there is an association with a broad range of emotional, behavioral, and physical health problems. [xv] Prevalence estimates vary, but as many as 68 percent of children and youth in the United States may be exposed to a traumatic event by age 16. The consequences may vary depending on a child's age when victimized, duration and severity of the abuse or neglect, the child's innate resiliency, and co-occurrence with other maltreatment or adverse exposures such as the mental health of the parents, substance abuse by the parents, or violence between parents.[xvi,xvii,] Aggression, conduct disorder, delinquency, antisocial behavior, substance abuse, intimate partner violence, teenage pregnancy, post-traumatic stress disorder, anxiety, depression, and suicide are among the emotional and behavioral problems associated with child maltreatment. [xviii ,xix,xx,xxi] Maltreatment and other adverse exposures are also associated with poor adult health status; specific health problems such as diabetes, ischemic heart disease, sexually transmitted diseases, and a variety of health risk behaviors including smoking and obesity. [xxii,xxiii,xxiv,xxv] In addition, exposure to child maltreatment can have negative repercussions for cognitive development, including language deficits and reduced cognitive functioning. [xxvi]

Current Strategies to Prevent Trauma

Enhance Protective Factors

Enhancing protective factors, or building resiliency, is a core strategy in a trauma-informed approach. Think of these protective factors as circumstances in a child's life that buffer the child from harm and promote stability and resilience. Research has shown that supportive family and social relationships, exercise, adequate sleep, proper nutrition, spending time in nature, listening to music, and meditation are key protective factors for individuals. Protective community factors include adequate housing, access to health care, support in times of need, and caring adults outside the family who serve as mentors and role models.[xxvii]

Promote Childhood Adversity Prevention

In Arizona, a consortium was created that promotes childhood adversity prevention. This group adopted the evidenced-based prevention program ***Triple P Parenting***. The program's goal is to increase parents' and caregivers' knowledge, skills, and confidence in order to reduce the rates of behavioral and emotional problems in children. In another example, two school systems in Maine are piloting screening for trauma as part of their in-home visits to all pre-kindergarten children. Pediatric and family practices statewide are interested in incorporating this type of screening in their work. Screening helps to identify children who are experiencing trauma or who are experiencing high-risk situations. Early identification and interventions can help prevent adverse health outcomes in later life.

In Philadelphia, four systems including education, public health, human services, and children's mental health agencies were targeted to implement a trauma-informed approach

and created a tools-based series called the ***Amazing Brain Books***. The series of "user-friendly" and beautifully illustrated booklets explains complex concepts about brain development, how the brain is affected by trauma and adversity, and how to promote resiliency and protective factors. [xxviii]

Link Recovery to Resilience

From SAMHSA's perspective, it is **critical to promote the linkage to recovery and resilience** for those individuals and families affected by trauma. Consistent with SAMHSA's definition of recovery, services and supports that are trauma-informed build on the best evidence available in regards to consumer and family engagement, empowerment, and collaboration. [xxix]

These examples of States and cities that implemented strategies and programs that intervene and prevent traumatic events early in a child's life all had similar beginnings. That beginning was a small group of people who began educating the community about the effects of trauma and how a trauma-informed approach, especially incorporating resiliency in community wellness strategies, could provide protection from the negative effects of trauma.

Current Research on Effects of Adverse Childhood Experiences (ACES) on Later Risks for Health Problems including Substance Abuse

Adverse Childhood Experiences (ACEs) and Trauma as Upstream Predictors of Health Behaviors and Health Outcomes

ACEs are traumatic stressful experiences or circumstances that can include abuse, neglect, and a range of household dysfunctions. Witnessing parental discord or domestic violence, or growing up in a home with substance abuse and dependence, mental illness, or crime are all ACEs. These traumas impact a child's developing brain and correlate with the future prevalence of a wide range of risk behaviors and health problems, including substance use disorders, abuse, and dependence throughout the lifespan. [xxx]

The Adverse Childhood Experiences Study

The Adverse Childhood Experiences (ACE) Study was conducted in the late 90's and is one of the largest studies to assess the correlation of family dysfunction and child maltreatment to health behaviors and outcomes later in life. The study was a joint effort between the Centers for Disease Control and Prevention, and Kaiser Permanente's Health Appraisal Clinic in San Diego. The study's population included 17,337 people (54% women, 46% men) with a mean age of 56 years. The participants were 75% white, 39% had college degrees, 36% had some college education, 18% had a high school education, and 7% did not graduate from high school.

The study assessed ten categories of stressful or traumatic childhood experiences (see Text Box). [xxxi] The experiences chosen for the study were based upon prior research that illustrated that the participants had significant adverse health or social implications. [xxxii]

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The Adverse Childhood Experiences (ACEs) Questionnaire

ACEs Questionnaire

Prior to your 18th birthday:

1. Did a parent or other adult in the household often or very often… Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt?
   No___If Yes, enter 1 __

2. Did a parent or other adult in the household often or very often… Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?
   No___If Yes, enter 1 __

3. Did an adult or person at least 5 years older than you ever… Touch or fondle you or have you touch their body in a sexual way? or Attempt or actually have oral, anal, or vaginal intercourse with you?
   No___If Yes, enter 1 __

4. Did you often or very often feel that … No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other?
   No___If Yes, enter 1 __

5. Did you often or very often feel that … You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   No___If Yes, enter 1 __

6. Was a biological parent ever lost to you through divorce, abandonment, or other reason?
   No___If Yes, enter 1 __

7. Was your mother or stepmother:
   Often or very often pushed, grabbed, slapped, or had something thrown at her? or Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   No___If Yes, enter 1 __

8. Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?
   No___If Yes, enter 1 __

9. Was a household member depressed or mentally ill, or did a household member attempt suicide? No___If Yes, enter 1 __

10. Did a household member go to prison?
    No___If Yes, enter 1 __

Now add up your "Yes" answers: _ This is your ACE Score _____
Now that you've got your ACE score, what does it mean?

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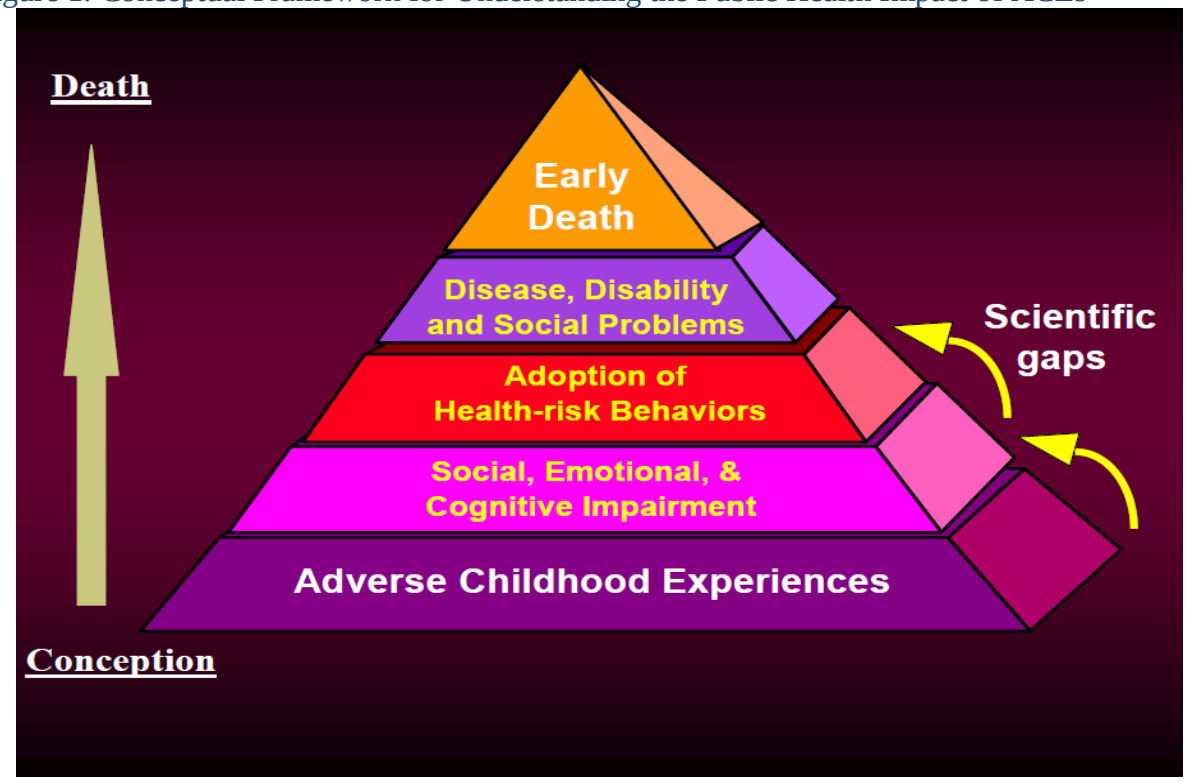
Now That You've Got Your ACE Score, What Does It Mean?

The key concept underlying the ACE Study is that stressful or traumatic childhood experiences are a common pathway to social, emotional, and cognitive impairments. ACEs lead to increased risk of unhealthy behaviors including substance dependence, violence or re-victimization, disease, disability, and premature mortality (Figure 3). We now know from breakthroughs in neurobiology that ACEs disrupt neurodevelopment and can have lasting effects on the brain structure and its functions.[xxxiii]

Figure 1. Conceptual Framework for Understanding the Public Health Impact of ACEs



Two Major Findings from ACEs Study

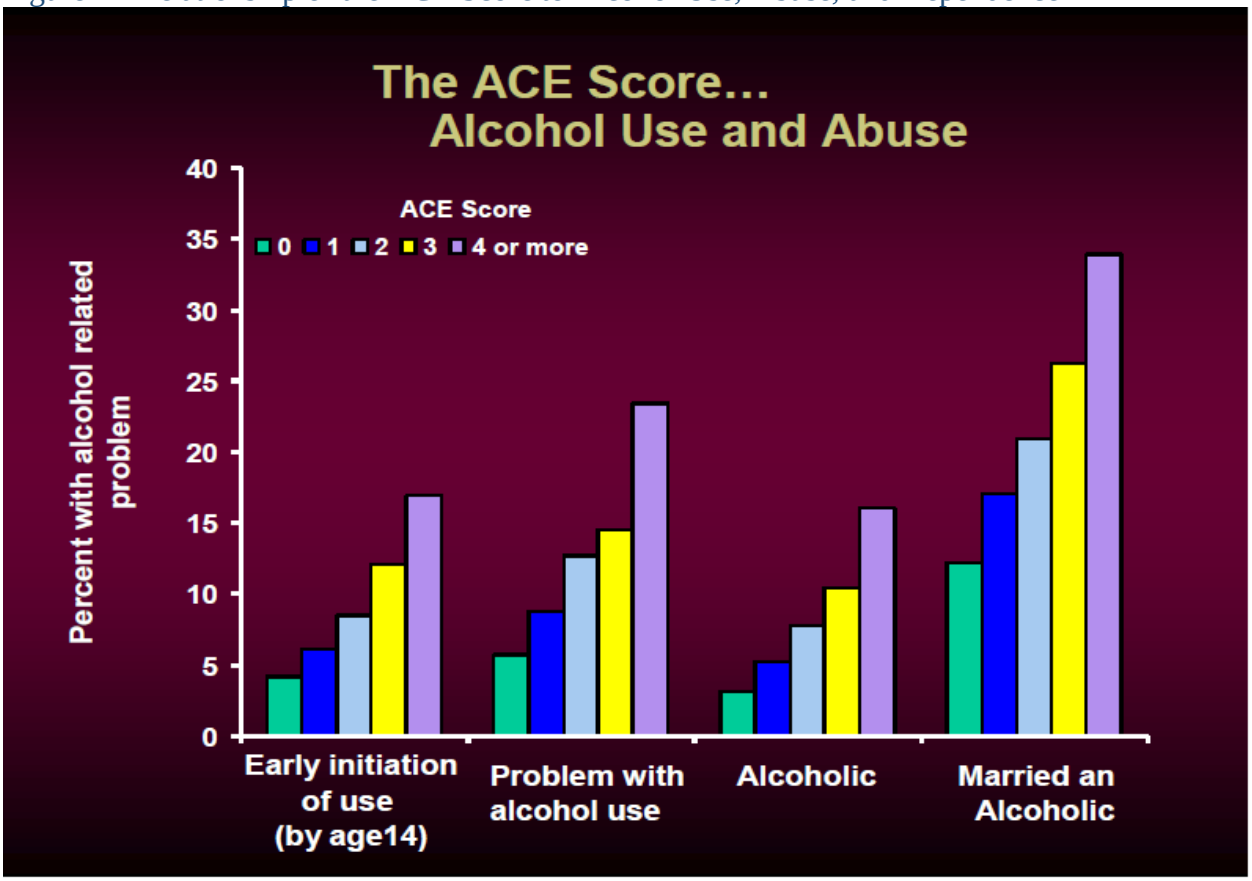
The study claims two major findings. The first finding is that **ACEs are much more common than anticipated or recognized.** Even in the middle class population that participated in the study, all of whom received health care via a large HMO, nearly two-thirds of the participants reported at least one ACE. [xxxiv] Additionally, the data demonstrates that ACEs are highly interrelated. If a person has one ACE, more than likely they have others. The second major finding is that **ACEs have a powerful correlation to health outcomes later in life**. [xxxv] Therefore, the short- and long-term outcomes of these childhood exposures include a multitude of health and social problems.[xxxvi] For example, the ACE Study uses the ACE Score, which is a total count of the number of ACEs reported by respondents. The ACE Score is used to assess the total amount of stress during childhood.

The study indicated that as the number of ACEs increase, there is a strong gradient response to the number of participants that demonstrated adverse behaviors and health outcomes. Examples of some adverse behaviors include early initiation of alcohol, alcoholism and alcohol abuse, early initiation of smoking, illicit drug use, domestic violence, depression, and early initiation of sexual activity. Examples of adverse health outcomes include fetal death, liver disease, chronic obstructive pulmonary disease, and ischemic heart disease. [xxxvii]

Adverse Childhood Experiences Link to Alcohol Use, Abuse, and Dependence

One of the strongest relationships seen was between the ACE score and alcohol use and abuse (Figure 2). [xxxviii,xxxix] Given recent research indicating the negative impact of alcohol use on neurodevelopment during adolescence, the relationship of ACEs to the early initiation of alcohol use is particularly worrisome.[xl] The negative health and social consequences of alcohol abuse and alcoholism constitute a major public health problem and ACEs have a particularly strong association with alcohol abuse and dependence. In addition, it is notable that the cycle of alcohol abuse, including marriage to an alcoholic, appears to be tightly interwoven with the number of ACEs. [xli]

Figure 2 - Relationship of the ACE Score to Alcohol Use, Abuse, and Dependence



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Implications of Adverse Childhood Experiences
The effects of ACEs are long-term, powerful, cumulative, and likely to be invisible to health care providers, educators, social service organizations, judges, and policy makers. The effects of ACEs are invisible because the linkage between cause and effect is concealed by time, the processes of neurodevelopment are hidden from view, and the effects of the original traumas may not manifest until much later in life. [xlii]

Considering the prevalence of trauma and the adverse long-term health outcomes, our approach to health and wellness must address early childhood with an emphasis on prevention, identification, assessment, and treatment of early childhood traumas. The best way to initiate such a strategy is to adopt a trauma-informed approach.

Key Assumptions and Principles of a Trauma-Informed Approach

What is involved in a Trauma-Informed Approach?
A Trauma-Informed Approach in human services:
"When a human service program takes the step to become trauma-informed, every part of its organization, management, and service delivery system is assessed and potentially modified to include a basic understanding of how trauma impacts the life of an individual. Trauma-informed organizations, programs, and services are based on an understanding of the vulnerabilities or triggers of trauma survivors that traditional service delivery approaches may exacerbate, so that these services and programs can be more supportive and avoid re-traumatization."
—National Center for Trauma-Informed Care, http://mentalhealth.samhsa.gov/nctic/trauma.asp

A trauma informed approach involves viewing trauma through an ecological and cultural lens and recognizing that context plays a significant role in how individuals perceive and process traumatic events, whether acute or chronic. [xliii] A trauma-informed approach can be implemented in any type of service setting or organization and is distinct from trauma-specific interventions or treatments that are designed specifically to address the consequences of trauma and to facilitate healing.

The Four Rs: Key Assumptions for a Trauma-Informed Approach
SAMSHA's concept of a trauma-informed approach is grounded in four key assumptions. A trauma-informed program, organization, system, or community should: [xliv]

- ***Realize*** the widespread effect of trauma and understand potential paths for recovery.
- ***Recognize*** the signs and symptoms of trauma in clients, families, staff, and others involved with the system.
- ***Respond*** by fully integrating knowledge about trauma into policies, procedures, practices, and settings.
- ***Resist*** re-traumatization of clients as well as staff.

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Six Key Principles to Support a Trauma-Informed Approach

From SAMSHA's perspective, it is critical to promote the linkage to recovery and resilience for those individuals and families affected by trauma.[xlv] Therefore, SAMSHA has developed six key principles to support a trauma-informed approach. SAMSHA recommends adherence to the six key principles rather than a set of practices or procedures.[xlvi] These principles should provide guidance to an organization or community working towards creating systems of health and social services that are trauma-informed. The six key principles consist of the following:

1. Safety: The organization providing services ensures clients feel both physically and emotionally safe. The organization makes sure that the physical setting is safe and interpersonal interactions promote a sense of safety.

2. Trustworthiness and Transparency: The organization ensures transparency in organizational decision-making in order to build trust with clients, family members, and staff.

3. Peer Support: The organization employs peer support and mutual self-help as key vehicles for establishing safety and hope, building trust, enhancing collaboration, and utilizing client stories and lived experiences to promote recovery and healing.

4. Collaboration and Mutuality: The organization recognizes that everyone has a role to play in a trauma-informed approach. Importance is placed on partnering and the leveling of power differences among staff as well as between staff and clients.

5. Empowerment: Throughout the organization and among the clients served, individuals' strengths and experiences are recognized and built upon.

6. Cultural, Historical, and Gender Issues: The organization actively moves past cultural stereotypes and biases; offers access to gender responsive services; leverages the healing value of traditional cultural connections; incorporates policies, protocols, and processes that are responsive to the racial, ethnic, and cultural needs of individuals served; and recognizes and addresses historical trauma.

The Role of Resiliency in a Trauma Informed Approach

Inherent to a trauma-informed approach is the concept of resiliency. Resilience refers to the ability to bounce back or rise above adversity as an individual, family, community, or provider. Well beyond individual characteristics of hardiness, resilience includes the process of using available resources to negotiate hardship and/or the consequences of adverse events. [xlvii]

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Individuals are resilient when they reflect on and grow from their own mistakes. Families show resilience when they rally after a death or a loss. Communities shine with resilience when they use their strengths to manage the challenges of economic, environmental or cultural change and to support the individuals within the community.[xlviii] Strengths include the stories and skills of elders, the exuberance of children, the sense of connectedness, and openness to new learning and research.

Trauma is a Widespread, Harmful and Costly Public Health Problem

Why is Trauma a Public Health Concern?

Recently, the Center for Youth Wellness published "*A Hidden Crisis,"* a report that highlights empirical data on ACEs in California. The data was collected in 2008, 2009, 2011 and 2013 by the annual California Behavioral Risk Factor Surveillance System. The findings are consistent with the ACEs Study and the report contains some interesting dis-aggregated data. For instance, ACEs affect Californians from all walks of life regardless of geography, race, income, or education. Although the prevalence of ACEs is generally consistent across race and ethnicity, high numbers of ACEs correlate with a person's socioeconomic status that includes poverty, education, and employment. [xlix] A person with 4 or more ACEs is:

- 21% more likely to be below 250 percent of the Federal Poverty Level
- 27% more likely to have less than a college degree
- 39% more likely to be unemployed

Given the pervasiveness and broad societal influences of trauma, efforts must begin to recognize and address trauma as a public health problem[l]. A public health approach to trauma focuses on preventing trauma from occurring and intervening early enough to mitigate its effect when it does occur. [li]

Overall, public health is concerned with protecting the health of entire populations. Populations can be as small as a local neighborhood or as big as an entire country or region of the world.[lii] Public Health includes the science and art of preventing disease, prolonging life, and promoting health through organized efforts of society[liii].

The Role of Prevention in a Trauma-Informed Approach to Wellness

The Social Determinants of Health – the "Causes behind the Causes"

As we have seen, ACEs are a public health concern for our society. But what are the causes of ACEs? To answer this question we must examine what has been termed the "causes behind the causes," also referred to as social determinants of health. Social determinants of health are the upstream social and economic factors that largely dictate the health and disease of individuals and populations. (See Figure 3 for examples of the Social Determinants of Health).

This understanding recognizes the conditions in which we live, work, learn, and play heavily influence the health we can achieve.[liv] The social determinants influence early childhood experiences that can either protect and nurture a child's early development or incite the emergence of ACEs. ACEs influence a child's developing brain and correlate with the future prevalence of a wide range of risk behaviors and health problems, including substance abuse, throughout the lifespan.[lv]

Figure 3. Social Determinants of Health

The Role of Prevention in a Trauma-Informed Approach to Wellness

Examine a Hypothetical Case

Let's examine a hypothetical case where the social determinants and early childhood traumas or ACEs ultimately cause risky behaviors resulting in negative health outcomes.

> Michael was born into a well-to-do family in a wealthy community in Placer County. When he was 4 years old, his parents divorced. His mother received little in the way of monetary support from Michael's father and had to work two jobs to provide for Michael and his sister. The family moved to an economically marginal neighborhood that had increased incidences of violence and substance use disorders along with unsafe parks and ineffective schools. When Michael was 6 years old, his mother's boyfriend moved in with them. Unfortunately, the boyfriend often abused Michael physically and verbally when he was intoxicated. Michael's mother was often working and did not intervene in the abuse. Over the years, Michael found it more difficult to concentrate in school. He was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), but the medications provided for his treatment offered no relief for his academic problems. Michael continued to live in a state of fear and instability because of his dysfunctional family and neighborhood. In his early teens, having easy access to alcohol, Michael began drinking. As an adolescent, Michael began smoking cigarettes and progressed to binge drinking. He was once cited by law enforcement for underage drinking. By the time Michael was a young adult, his drinking developed into alcohol dependency. He was unable to secure a job, and suffered from depression, lung and cardiovascular disease when he was older.

Questions Substance Abuse Prevention Specialists Should Ask

Michael's situation' is indicative of adverse childhood experiences or traumas that were sustained for most of his young life and contributed to behaviors that affected his health. As a substance abuse prevention specialist, the questions we should ask are:

1. Was this situation preventable?
2. When should Michael have received help?
3. Is this a unique problem?

In Michael's case, trauma was an insidious influence that changed the trajectory of his life. By thinking of this hypothetical case, we can see how trauma is related to the social determinants of health and how it makes a tremendous impact on public health.

Was Michael's situation preventable? Yes. If Michael had lived in a community that embraced a **trauma-informed approach to wellness**, then Michael's situation would have been detected at a very young age by the people who had contact with Michael, including his primary care physician, teacher, police, and his mother, to name a few. Instead of being diagnosed with ADHD without identifying the role trauma played in Michael's brain development, steps could have been taken to address Michael's situation including his family issues and community situations that might have mitigated or avoided these adverse childhood experiences. Before looking at what interventions may have helped Michael, understanding trauma and a trauma-informed approach to wellness is critical.

The Role of Prevention in a Trauma-Informed Approach to Wellness

Understanding Trauma-Informed Approach to Wellness

An individual's behaviors will be influenced by the accumulation of ACEs. The more ACEs in early childhood, the more probability that the individual will indulge in riskier behaviors such as smoking, alcohol and drug use, violence, and inappropriate sexual behavior in later years. A basic strategy in a trauma-informed approach to wellness is universal assessment. Universal screening for trauma history and trauma-related symptoms can help behavioral health practitioners identify individuals at risk of developing more pervasive and severe symptoms of traumatic stress. Screening, early identification, and intervention serve as public health prevention strategies.[lvi] This approach can also reduce health care costs, which account for over 17% of the Gross Domestic Product in the United States. SAMSHA recommends that a trauma-informed community implement universal screenings for trauma.

Implications for the Future: Transitioning to a Trauma-Informed Approach to Support a Community's Prevention Strategy.

Focusing on the prevention of ACEs and the encouragement of resilience factors can be an effective upstream prevention strategy to address substance use, substance dependence, and other health outcomes. The opportunity to move the prevention effort further upstream requires mobilizing a community to value a trauma-informed approach to wellness. It also involves forming partnerships with entities that address health inequities and socioeconomic factors such as poverty.

The Community Resilience Cookbook (www.communityresiliencecookbook.org) profiles five cities and four states that have committed to a trauma-informed approach as the context to build resiliency throughout their communities to address ACEs and other traumas. These profiles demonstrate that the process to build resiliency varies widely from place to place. However, there are certain tactics that have emerged from an analysis of the examples depicted in *The Community Resilience Cookbook.*

The following is a brief synopsis of those tactics. A more extensive depiction can be found in the *Community Resilience Cookbook*. Additionally, an infographic, titled *Recipe for Resilience*, depicts these tactics.

Tactics to Build Resilience in Context of a Trauma-Informed Approach

Leadership and Collaboration: Anyone from the community can be the catalyst for beginning to build a community's understanding of resilience. A small group emerges that begins a "think tank" to better understand concepts such as a trauma-informed approach to wellness, the science of ACEs, and resiliency. This group can review where their community currently stands related to addressing trauma and contact other cities and states that are creating trauma-informed systems of care.

Once the group builds its knowledge base in these areas, they can identify, cultivate, and educate a larger group of 30 to 50 people. This larger group should consist of cross-sector members. Lastly, the larger group develops a mission statement and a strategic plan that addresses capacity building

for the group. The plan should be updated in approximately two to three years when the group begins maturing into a formal coalition.

Community Education: The group will educate all sectors in the community while identifying and cultivating additional members. The education can begin at a foundational level and then progress to subsequent forums that address more complex issues including implementation of a trauma-informed approach to wellness.

Resources: The group will assess resources that can support the future planning, data-gathering, and other activities of the group. At this point, the group is maturing into a formal coalition.

Communication: The group has matured into a formal coalition. Formal memorandums of understanding are signed by the members. The group communicates and advocates with community leaders and the general public.

Data/Research: The coalition collects data on ACEs to create a baseline to measure change and gauge the effects of ACEs in the selected community or area. The strategic plan is updated to include implementation of policies, practices, and programs that address ACEs through the lens of resiliency.

Mindset: The coalition continues to collect local data and provide education about trauma-informed communities, resiliency, and other aspects of a trauma-informed approach to wellness.

Competencies the Prevention Field Will Need in a Trauma-Informed Community

The aforementioned tactics should be familiar to the prevention specialist. Over the last 20 years, coalition building has become a major strategy for the prevention of substance use disorders, abuse and dependence. These tactics also address capacity building that can enhance the coalition's ability to achieve sustainability for its efforts.

Many communities already have an existing coalition whose mission is the prevention of substance use disorders, abuse, and dependence. Most of these coalitions already include cross-sector membership, a planning process (the Strategic Prevention Framework), resources to support their efforts, and the use of collective efforts to mobilize a community. The challenge and opportunity is infusing the trauma-informed approach as a strategy within the coalition's strategic plan. Many of the concepts in this Prevention Tactic should be further explored so that the prevention specialist can make a persuasive argument about the benefits of a trauma-informed approach to wellness.

The Role of Prevention in a Trauma-Informed Approach to Wellness

Summary & Conclusion: The Time is Right to Promote a Trauma-Informed Approach to Wellness

Momentum for a trauma-informed approach has been growing over the last 20 years. SAMHSA has been a leader in recognizing the need to address trauma as a fundamental obligation for public mental health, substance abuse, and dependence service delivery and has supported the development and promulgation of trauma-informed systems of care. [lvii]

Examples of a Trauma-Informed Approach

Many States now collect ACEs data that communities are using to promulgate the concept that trauma has significant impact on health outcomes. There are a growing number of initiatives to implement a trauma-informed approach. Washington State has implemented a framework for a trauma-informed approach that includes neurobiology, ACEs, resiliency, and systems change. Tarpon Springs, Florida, is the first city in the country to declare itself a trauma-informed community. These initiatives are supported by a proliferation of organizations whose mission it is to disseminate the importance of trauma-informed approaches.

Important Lessons to Learn

There are important lessons that we can learn from states and cities that have implemented a trauma-informed approach:

- First, it takes several years to educate and mobilize communities to take action.
- Second, collective action is a key to increasing the use of a trauma-informed approach throughout a community.
- Lastly, change in health outcomes, including substance abuse and dependency may not show up until many years later because prevention efforts are targeted at early childhood traumas.

In order to measure short-term success, the prevention specialist will have to identify intermediary indicators to encourage and maintain a community's decision to invest in a trauma-informed approach. Data-driven intermediary indicators will help a community persevere long term in order to see the positive individual and community health outcomes that result from a trauma-informed approach.

A trauma-informed approach to prevention of substance abuse and dependence is a nascent strategy to many prevention specialists. This Prevention Tactic attempts to both inform and encourage those involved in the prevention field to further investigate the opportunities gained from this approach. It's highly recommended to utilize the extensive references included in this Prevention Tactic as a resource to contact those who have already committed to a trauma-informed approach. Their experiences can be invaluable as you develop your case for adopting a trauma-informed approach as part of your prevention strategy.

The Role of Prevention in a Trauma-Informed Approach to Wellness

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