

COMMUNITY FOCUS: Substance Abuse Indicators in Livingston and Washtenaw Counties

**Presented by the
Substance Abuse Monitoring, Assessment & Recommendation Team
A subgroup of the Livingston/Washtenaw Substance Abuse Advisory Council**

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In October 2004, the Michigan Department of Community Health Office of Drug Control Policy received a Strategic Prevention Framework – State Incentive Grant (SPF/SIG) from the Substance Abuse and Mental Health Services Administration/Center for Substance Abuse Prevention (SAMHSA/CSAP). The purpose of SPF funding was to prevent the onset and reduce the progression of substance abuse and related problems. The SPF emphasizes the need to identify and address community influences that promote or discourage substance abuse. These powerful influences include advertising, pricing, law enforcement, cultural norms, access and availability of alcohol and other drugs. This emphasis represents a shift in prevention approaches that have traditionally focused on individuals' knowledge, attitudes and behaviors. The *Strategic Prevention Framework* is an outcome-based, data driven, population-level approach to substance abuse prevention planning. The Substance Abuse and Mental Health Services Administration's (SAMHSA) five step approach was used to direct this initiative.

SAMHSA'S Strategic Prevention Framework

- Assessment
- Capacity
- Planning
- Implementation
- Evaluation

The Livingston/Washtenaw Substance Abuse Coordinating Agency (CA) began implementing the Strategic Prevention Framework (SPF) in May 2007. Since this time the CA established a Community Epidemiological Workgroup (CEW) to conduct a community level needs assessment to define and drive decision making. This included a review of existing relevant substance abuse data on consumption and consequences such as alcohol-related traffic crash deaths and has helped to shape substance abuse prevention programming in Livingston and Washtenaw Counties.

Establishing SMART

In order to continue to track and review community substance abuse related issues and make funding recommendations based on this information, a permanent subgroup of the Livingston/Washtenaw Substance Abuse Advisory Council was established. The Substance Abuse Monitoring, Assessment & Recommendation Team (SMART) consists of representatives from health, law enforcement, education, courts, service providers, mental health, substance abuse prevention and treatment services.

Areas of Interest & Selection Process

In January 2009, Adreanne Waller, WCPH Epidemiologist, provided a structure for how our region (Livingston and Washtenaw) might measure substance abuse prevention needs. These included conventional measures regarding substance use (binge drinking, marijuana use, etc.) but also included indicators of substance abuse risk. For instance, some predictors of substance abuse include unemployment, high school dropout, as well as perceived risk of use and parental approval. Thus, assessment measures were selected for monitoring progress.

This structure identified criteria against which to measure indicators, including measurability, reliability, availability, and community importance. SMART then reviewed a matrix summarizing nearly 150 assessment indicators from various assessment models used to determine community substance abuse prevention needs. The indicator categories included the use of a social-ecological schema and SAMHSA-identified 'intervening variables' extending beyond simply drug use and consequences. These community measures include consumption, accessibility, crime, education, family organization, social connectedness, etc. The following indicators were selected and rated against the aforementioned criteria:

- 30-Day Use
- Availability of Alcohol, Tobacco, & Other Drugs
- Perceived Risk of Use
- Age of First Use
- Youth Drug Related Hospital Diagnosis Rate
- Adult DUI Drug Arrest Rate
- Youth DUI Drug Arrest Rate
- Absenteeism
- High School Dropout
- Divorce Rate
- Motor Vehicle Crash with DUI
- Perceptions of Parental Disapproval
- Unemployment

SAFE & SOUND Survey

The Substance Abuse Factors in our Environment and Survey for Understanding Neighborhood Determinants is a baseline survey conducted by the Washtenaw & Livingston Substance Abuse Coordinating Agency (SACA), SMART in August/September of 2009. This survey was designed to assess use, perceptions of risks, availability, parental perception of youth substance use, perceived parental efficacy and community norms encouraging substance abuse, as well as protective factors and environmental influences such as pricing, promotion, and law enforcement among randomly selected adults and youth (ages 12-17 years old) in Livingston and Washtenaw counties. A major goal of the survey method design was to enable comparisons between adult and youth responses, including parental influence on youth substance use and attitudes. Survey questions were selected from already existing state and national tools, enabling comparability.

Purpose & Structure of Report

Identifying and understanding substance abuse related issues in our locality are vital to making recommendations for potential improvements. *Community Focus: Substance Abuse Indicators in Livingston and Washtenaw Counties* was developed to assist this process and share findings with the greater region. In times of limited funding opportunities, it becomes even more critical to determine specific needs and target efforts through community and research based strategies.

Thus, resource allocation decisions are driven through a 'diagnostic' understanding of substance abuse prevention needs. By utilizing the expertise of SMART members and other community professionals, an analysis of selected SMART indicators was conducted. The content of this report includes the indicator and the associated definition, status, limitations, relationship to substance abuse, relationship to the *Recovery Oriented Systems of Care*, potential evidenced-based interventions, and relevant SAFE & SOUND data.

Benefits to the Community & Next Steps for SMART

Substance abuse continues to be associated with various individual, familial, and community issues. The Livingston/Washtenaw Substance Abuse Coordinating Agency understands the importance of targeting needs and strategies to promote healthy communities and individual well-being. By sharing and reporting results of the substance abuse related indicator analysis and the SAFE & SOUND survey, SMART hopes to promote the use of this information to target specific concerns and implement community-based, collaborative efforts. This report provides potential evidenced based interventions to enhance the opportunity for success and to reduce the negative effects of substance abuse.

SMART will continue to review substance abuse related data, identify gaps in data, and make recommendations based on this information. The long-term goal is to have community organizations, agencies and governmental entities include the priorities identified from SMART indicators into their strategic plans for funding, program planning and resource allocation decisions.

Connection to Other Initiatives

SAMHSA is currently promoting the *Recovery Oriented Systems of Care* (ROSC). ROSC principles support person/family-centered and self-directed approaches to care that build on the personal responsibility, strengths, and resilience of individuals, families, and communities to achieve sustained health, wellness, and recovery from alcohol and other drug problems. The SPF and ROSC paradigms blend together to provide an upstream approach to preventing substance abuse, as well as supporting persons in recovery.

Unemployment

- The unemployment rate in Michigan is 40% higher than that for the United States.
- The unemployment rate in Livingston County in 2010 (12.1%) is 330% higher than it was in 2000 (2.8%).
- Binge drinking rates are two to four times higher in high school versus college graduates in Livingston and Washtenaw.
- Investing in substance abuse prevention and treatment reduces unemployment, absenteeism, tardiness and health care costs.



Perceptions of Parental Disapproval

- Washtenaw County youth identify having parents who feel substance use would be 'very wrong' at significantly lower rates than Livingston County youth.
- Livingston and Washtenaw County youth who use alcohol or marijuana perceive less peer, parental and school disapproval than youth who do not use these substances.
- Parental disapproval of substance abuse is critical to preventing youth use. Interventions should target parents least likely to express disapproval.

High School Dropout and Graduation

- Livingston and Washtenaw Counties have higher high school graduation rates than Michigan or the U.S.
- Dropping out is not a sudden act. Youth drop out of high school because they need a job, have failing grades, see classes as boring and perceive low expectations from others. Early warning systems can help identify students early so appropriate supports can be provided.
- Adults who are high school dropouts are 60%-150% more likely to use illicit substances than adults who graduated from high school.
- Poorer academic achievement also predicts greater risk of substance abuse.

30 Day Use

- Livingston and Washtenaw Counties have significantly higher past month use for both alcohol and marijuana compared to Michigan or the U.S.
- Livingston and Washtenaw Counties have the highest rate of marijuana initiation during 2006-2008 compared to other Michigan counties and nearly all of the United States.
- The combination of high initiation rates plus low perceived risk of marijuana use in Livingston and Washtenaw presents a significant challenge regarding current and future addiction rates.

Perceived Risk

- Livingston and Washtenaw Counties have much lower levels of perceived risk for marijuana use or binge drinking compared to Michigan or the U.S.

- Adolescents who perceive low risk from smoking marijuana were nearly seven times more likely to use marijuana than adolescents who perceive great risk.
- Livingston and Washtenaw youth who do not perceive great risk of marijuana use or binge drinking are much more likely to use than youth who do perceive great risk.
- Interventions to increase perceptions of risk should be particularly focused on youth whose parents are substance abusers.



DUI Crashes

- Underage drinkers are more likely to drink more drinks and drive under the influence than are older adult drinkers.
- Livingston and Washtenaw County adults who report driving under the influence are much more likely to drink more drinks on each occasion than drinkers who do not drive under the influence.

- The percent of all motor vehicle crashes involving alcohol, as well as the fatal crashes involving alcohol, has remained steady for Livingston and Washtenaw during 2004-2008.

DUI Arrests

- Minority groups and residents of smaller metropolitan communities are more likely to be arrested for DUI than residents of larger metropolitan communities.
- DUI arrest rates for Michigan and Livingston County have decreased between 2000 and 2006. However Washtenaw County adult DUI arrests have increased 40% during that time.
- DUI arrests frequently result in suspended driver's licenses. Substance abusers are much more likely to be successful in recovery if they have access to employment, education and community resources. Appropriate opportunities for such access are critical.
- Employed females are three times more likely to be referred to substance abuse treatment resulting from DUI arrests than are unemployed females.



Divorce

- Divorce rates have dropped in Washtenaw, Livingston and Michigan during the 2000's.
- Increases in 1 liter of alcohol consumption per capita results in 20% increase in divorce rates.
- Children in divorced families are two to three times more likely to drop out of school, have poorer academic achievement, and initiate drinking earlier, and use alcohol as a coping mechanism than their peers whose parents are not divorced.
- Livingston and Washtenaw adults who consume alcohol and who are divorced are three times more likely to be binge drinkers than their non-divorced counterparts.

Age of First Use

- Washtenaw County youth have higher rates of alcohol, marijuana and cigarette initiation younger than age 13 compared to Livingston County youth.
- Livingston and Washtenaw County youth initiate alcohol use at age 13.3 years and marijuana at age 14, on average.
- Interventions designed to delay age of first use must target youth in fourth or fifth grade or younger.

Absenteeism

- Risk factors for absenteeism include phobias, anxiety, depression, lack of parental supervision, and poor academic achievement.
- School connectedness even in early secondary school predicts late teenage substance use, mental health and academic outcomes.
- In Michigan, African American students and students with disabilities have the highest absenteeism rates compared to other groups.
- Livingston and Washtenaw youth who use marijuana are more likely to have lower grades, say that their teacher never or seldomly notices when they do a good job, never or seldomly enjoys being at school and never or seldomly feels that what they do at school makes a difference, compared to their non-using counterparts.



How is '30 day' or 'past month' use defined.

'30 day use' refers to use of a substance at least once during the month preceding an individual's response to a given survey.

How do we compare?

- Table 1 below indicates that the Livingston and Washtenaw region has higher levels of past month alcohol, marijuana and illicit drug use compared to the United States. However, Michigan has higher rates of illicit drug use compared to rates in Livingston, Washtenaw or the United States.

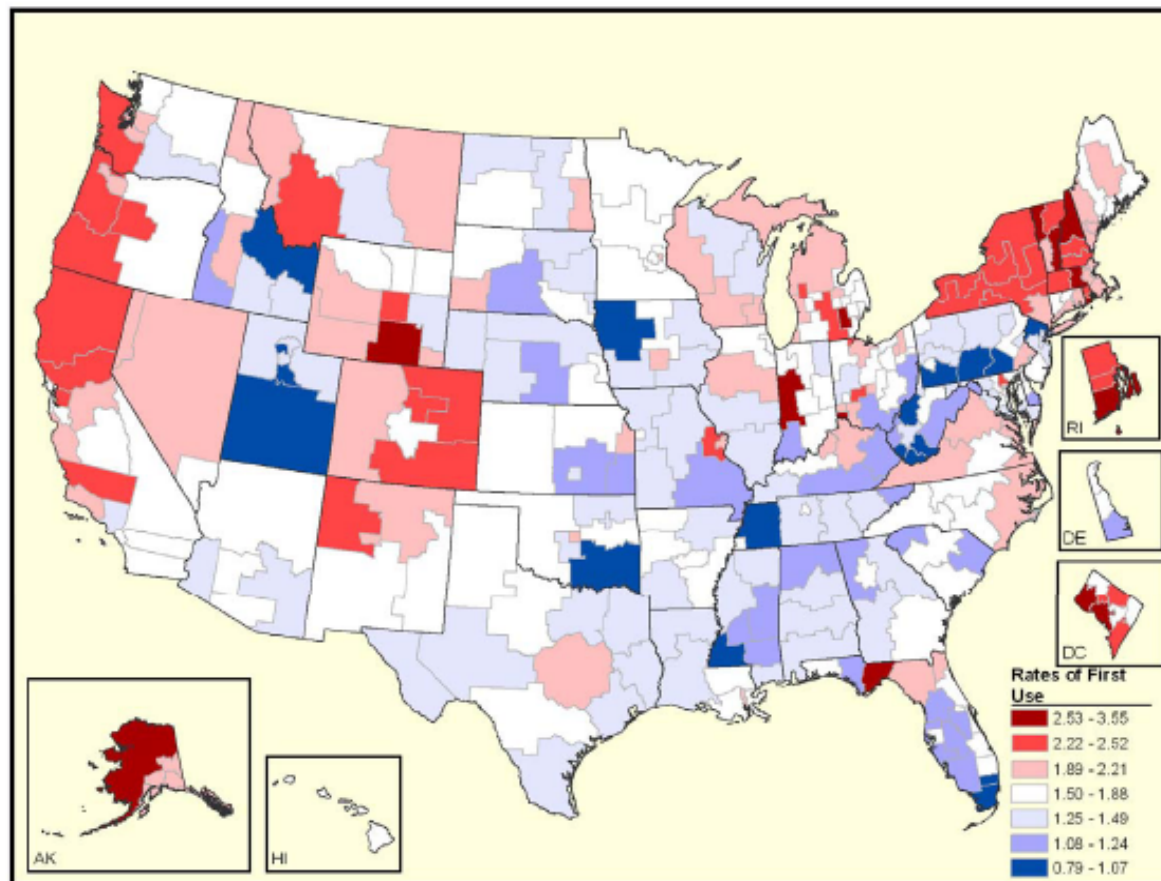
Table 1 - Substance Use in Past Month 2006-2008¹

	Livingston/ Washtenaw Region	Michigan	United States
Alcohol	61.9	55.0	51.2
Marijuana	7.5	6.9	5.9
Illicit Drugs	4.0	9.0	3.7

- An additional indicator related to 'past month use' is the 'first use annual rate.' 'First use' indicates the proportion of a population initiating substance use during a certain period of time. As seen in Figure 1, the Livingston and Washtenaw region had the highest rate of first use of marijuana in 2006-2008 compared to all Michigan counties. In fact, the Livingston and Washtenaw region is in the highest rate category for the U.S. (see dark maroon indicating 2.53-3.55).

Figure 1

Figure C2.2 First Use of Marijuana among Persons Aged 12 or Older, by Substate Region: Average Annual Rates Based on 2006, 2007, and 2008 NSDUHs



NOTE: For substate region definitions, see Section D.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2006, 2007, and 2008.

- The Livingston and Washtenaw region has the lowest proportion of the population 12 and older that perceive that smoking marijuana once a month as a 'great risk' compared to all other Michigan regions (23% compared to 34% for Michigan).

What risk groups are most likely to have past month substance use?

- Illicit Drugs
 - Persons 18-20 years
 - Males
 - Persons of two or more races
 - Unemployed
 - Large metropolitan cities
- Alcohol
 - Persons 21-25 years
 - Males
 - White
 - College educated
 - Employed
 - Large metropolitan areas

What are the trends regarding past month use?

Table 2 below indicates that past month marijuana and alcohol use has decreased for adults and youth, with the exception of a slight increase for alcohol in 2008.

Table 2 - Past Month Use - Marijuana & Alcohol United States 2002-2008

	2002	2005	2008
Marijuana (12-17 years)	15.8	13.3	13.0
Alcohol (12-17 years)	17.6	16.5	14.6
Marijuana (adults)	17.3	16.6	16.5
Alcohol (adults)	60.5	60.9	61.2

How does past month use affect recovery?

- Recovery is hastened when substance use is minimized.
- Recovery systems and supports should not be withdrawn or denied because addicts relapse into substance use.
- Continuing recovery supports during relapse can increase the likelihood of future and continued recovery.

“A recovery oriented system of care identifies and builds upon each individual’s assets, strengths, and areas of health and competence to support achieving a sense of mastery over his or her condition while regaining a meaningful, constructive, sense of membership in the broader community².”

Are there interventions designed to reduce past month use?

Project Northland³ is a multilevel intervention involving students, peers, parents, and community in programs designed to delay the age at which adolescents begin drinking, reduce alcohol use among those already drinking, and limit the number of alcohol-related problems among young drinkers. Administered to adolescents in grades 6–8 on a weekly basis, the program has a specific theme within each grade level that is incorporated into the parent, peer, and community components.

What does the SAFE and SOUND survey tell us about 30 day use?

Table 3 below indicates that Livingston County adults have higher rates of both past month use as well as binge drinking for males compared to Washtenaw County.

Table 3 - Past Month Alcohol Use and Binge Washtenaw and Livingston Adults 2009

Use Among Parents		Washtenaw	Livingston
Alcohol Use		62.3%	67.4%
Binge drinking	Males	5.5%	7.8%
	Females	4.9%	4.1%

How does this information help us better understand substance abuse prevention needs?

- The Livingston and Washtenaw region has significant excesses in marijuana initiates and low levels of perceived risk for marijuana use, compared to Michigan or the United States.
- The Livingston and Washtenaw region also has significant excesses regarding alcohol use and binge drinking compared to Michigan or the United States.
- As a result, we will need to strengthen prevention efforts significantly to protect the next generation of adolescents and youth.

References:

¹ Substance Abuse and Mental Health Services Administration. (2010). *Substate Estimates from the 2006-2008 National Surveys on Drug Use and Health* (Office of Applied Studies). Rockville, MD. <http://oas.samhsa.gov/substate2k10/2k8Substate.pdf>

² Kirk, A., et.al. Implementing a statewide recovery oriented system of care. NASMHPD Research Institute, February 2005NASMHPD Research Institute, February 2005Thomas

³ SAMHSA. National Registry of Evidence Based Prevention Practices. <http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=25>

How is 'perceived risk' measured?

Perceived risk is defined as the perception that using a substance is risky. Perceived risk is measured by survey questions and self identification. Perceptions of risk are typically measured on a scale including great, moderate, slight or no risk.

How do we compare?

Survey results from the National Survey on Drug Use and Health (NSDUH) and Table 1 below indicate:

- Significantly lower proportion of Washtenaw County residents aged 12 years and older perceive a great risk for smoking marijuana once a month and binge drinking once or twice a week compared to the United States. (Livingston County data not available for NSDUH substate estimates.)

Table 1 - Great Risk Perceived for Marijuana Use and Binge Drinking 2004-2006 NSDUH – Substate Estimates¹

	Washtenaw	Michigan	U.S.
Smoking marijuana once a month (persons 12 years and older)	29%	36%	39%
Binge drinking once or twice a week (persons 12 years and older)	36%	38%	41%

As seen in Table 2:

- Washtenaw County has a lower proportion of youth and adults who perceive great risk for smoking marijuana more than once a week.
- A smaller proportion of Washtenaw County youth perceive great risk from binge drinking compared to Livingston County youth.

Table 2 - Great Risk Perceived for Marijuana Use and Binge Drinking 2009 Livingston/Washtenaw SAFE and SOUND Survey

	Washtenaw	Livingston
Smoking marijuana more than once a week (Youth aged 12-17 years)	67%	73%
Smoking marijuana more than once a week (adults 18 years and older)	56%	66%
Binge drinking once or twice a week (Youth aged 12-17 years)	52%	56%
Binge drinking once or twice a week (adults aged 18 years and older)	64%	62%

What are the trends regarding perceived risk?

Results from the 2009 NSDUH indicate:

- The percent of youth 12-17 years who perceived great risk from smoking marijuana once a month increased between 2002 and 2003. However, the proportion remained relatively unchanged through 2003².
- Perceptions of great risk from using LSD declined between 2002 and 2008. However, the percent of youth perceiving great risk from using alcohol and cigarettes increased between 2002 and 2008.

Which groups are most likely to perceive great risk?

Nationally:

- Perception of great risk from smoking marijuana decreases with age for youth.
- Persons who use marijuana or binge drink are much less likely to perceive great risk of use.
- Perception of great risk for binge drinking is higher for females than males.



What is the relationship between perceived risk and substance abuse?

National data indicate³:

- Adolescents who perceived great risk from smoking marijuana once a month were much less likely to have used marijuana in the past month than those who perceived moderate to no risk (1.4 vs. 9.5 %). This finding was consistent for both genders and all age groups.
- Shifts in perceived risk of use of substance are generally thought to signal future changes in the prevalence of use.

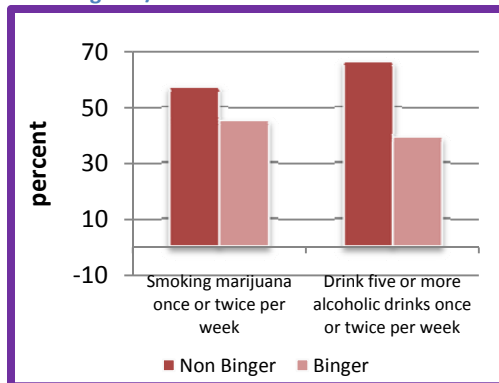
How does perceived risk affect recovery?

- Perceptions of risk are key in both adult and youth recovery. The basis of many recovery or sobriety centered groups is based on acknowledging the power that the substance has over the individual.
- Adult addicts, frequently, if not always, minimize the effects of substance abuse in their lives.
- Youth addiction recovery is particularly dependent on perceived risks. Primarily, youth behavior is heavily influenced by peer and community acceptance of substance abuse. Additionally, substance abusing youth are frequently the products of substance abusing families. These youth are likely exposed to authority figures' lowered perceptions of risks of substance abuse, not to mention availability of illicit substances.

What does the SAFE and SOUND survey tell us about the link between perceived risk and substance use?

- Youth who are not alcohol or marijuana users perceive greater risks involved in binge drinking and marijuana use, and are more likely to perceive that their community perceives greater risk involved in substance abuse, than youth who use.
- Non-binge drinking adults are more likely to perceive great risk in smoking marijuana once or twice per week and in drinking five or more alcoholic drinks once or twice per week (Figure 1).

Figure 1 - Great risk Perceived for Marijuana Use and Binge Drinking by Binging Status
2009 Livingston/Washtenaw SAFE and SOUND Survey



Are there community based interventions that are designed to increase perceived risk in order to decrease substance use?

- *The Parents Who Host, Lose The Most: Don't be a party to teenage drinking* public awareness campaign educates parents about the health and safety risks of serving alcohol at teen parties and increases awareness of and compliance with underage drinking laws⁴.
- *All Stars* programs prevent alcohol, tobacco and drug use, postpone sexual activity, and reduce fighting and bullying⁵.
- The *Project Northland* intervention is designed to delay the age when young people begin drinking, reduce alcohol use among young people who have already tried drinking, and limit the number of alcohol-related problems of young people. At end of intervention, participants were less likely to abuse substances, and have lower rates of past month use⁶.

How does this information help us better understand substance abuse prevention needs?

- Increasing perceived risk may decrease substance use.
- Interventions to increased perceived risks need to account for the decreased perceptions of risk for older youth and males.
- Particular attention should be focused on youth whose parents are substance abusers.

References:

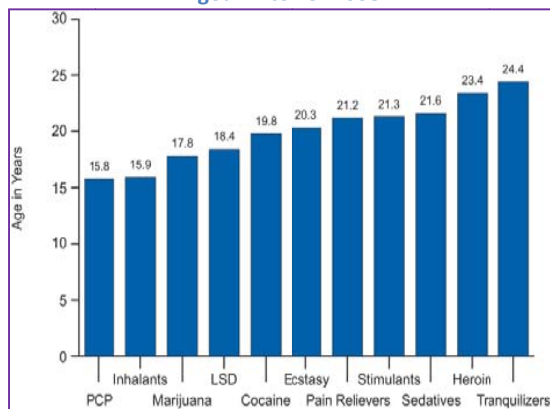
- ¹ <http://www.oas.samhsa.gov/substate2k8/substate.pdf>
- ² Results from the NSDUH 2009. January 8, 2009. <http://oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf>
- ³ NSDUH 2009 ibid.
- ⁴ <http://drugfreeactionalliance.org/pwh.php>
- ⁵ <http://www.allstarsprevention.com/>
- ⁶ NREPP. www.nrepp.samhsa.gov



How is 'age of first use' defined?

Age of first use refers to the age at which a person first uses a substance (alcohol, marijuana, etc.) It is one of the four core indicators identified by the Substance Abuse and Mental Health Services Administration Center for Substance Abuse Prevention (SAMHSA) and the Office of National Drug Control Policy as a key indicator of substance abuse prevention needs. Age of first use is typically measured by self identified survey questions. Figure 1 below indicates national averages for mean age at first use for various illicit substances. Hallucinogenic drugs have younger mean ages, while narcotics, opiates and pain relievers have older mean ages of initiation.

Figure 1 - Mean Age at First Use for Specific Illicit Drugs among Past Year Initiates Aged 12 to 49: 2008



How do we compare?

Table 1 below identifies that Washtenaw County youth have higher rates of alcohol, marijuana and cigarette initiation younger than age 13 compared to Livingston County.

Table 1 - Substance Use Younger than 13 Years
Washtenaw/Livingston 12-17 Year Olds
2009 SAFE and SOUND Survey Results

	Washtenaw	Livingston
First alcohol younger than 13 years	7.5%	5.7%
First marijuana younger than 13 years	4.7%	1.0%
First cigarette younger than 13 years	2.3%	.5%

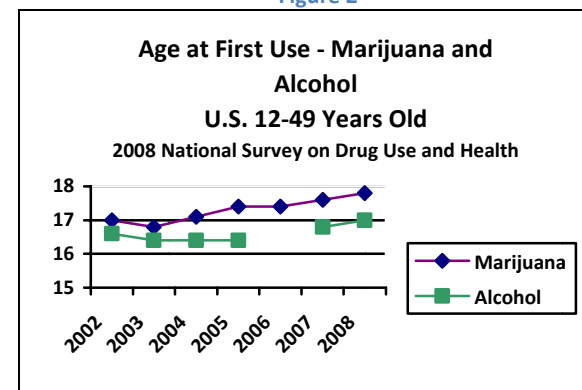


What are the trends regarding age of first use?

According to the National Survey on Drug Use and Health and as seen in Figure 2 below^{1,2},

- The age at first use of alcohol for persons 12-49 years increased from 16.4 to 17 years between 2002 and 2008.
- The age at first use of marijuana for persons 12-49 years increased from 17 to 17.8 years between 2002 and 2008.

Figure 2



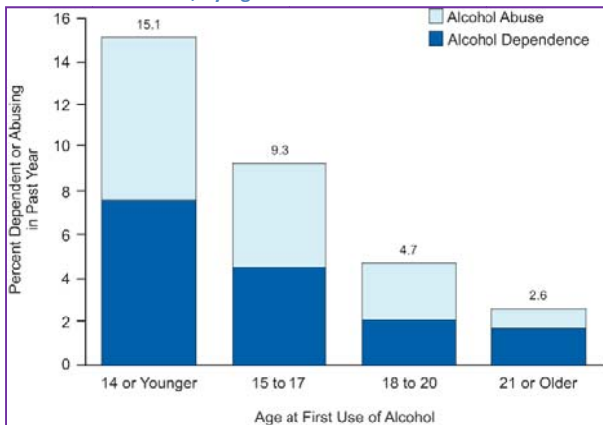
What is the relationship between age of first use and dependence?

According to the National Survey of Drug Use and Health (NSDUH) 2008³:

- In 2008, among adults aged 18 or older, age at first use of marijuana was associated with dependence on or abuse of marijuana. Among those who first tried marijuana at age 14 or younger, 13.5 percent were classified with illicit drug dependence or abuse, compared to the 2.2 percent of adults who had first used marijuana at age 18 or older.
- As seen in Figure 3, among adults, age at first use of alcohol was associated with dependence on or abuse of alcohol. Among adults aged 18 or older who first tried alcohol at age 14 or younger, 16.5 percent were classified with alcohol dependence or abuse compared with only 3.9 percent of adults who had first used alcohol at age 18 or older.

Figure 3

Alcohol Dependence or Abuse in the Past Year among Adults Aged 21 or Older, by Age at First Use of Alcohol: 2008



How does age of first use affect recovery?

- Earlier ages of first use are directly related to the risk of dependence, as well as the severity of dependence. Further, the younger substance abuse is initiated, the greater the breadth of life skills that are potentially negatively affected. For instance, education, employment, emotional health, friendships, etc. are all naturally supportive aspects of well being. Recovery will therefore require greater coordination and sophistication to address these limitations.
- Many symptoms of certain drugs in adolescents can be easily misdiagnosed for psychiatric illness. Treating the observed symptom may be different from treating the drug abuse.

Polydrug abuse in an adolescent further complicates the clinical picture, especially when the treating physician is unaware of the drug abuse of the patient. In addition, the younger the age that a person has exposure to a chemical, the more susceptible that person is to a psychiatric reaction⁴.

Are there interventions designed to delay age of first use?

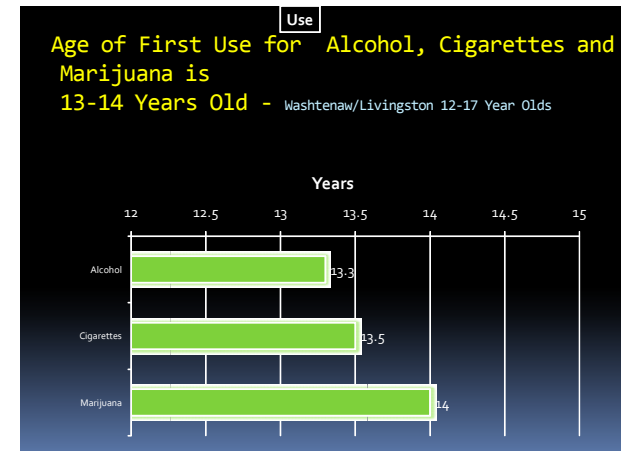
- *All Stars* programs prevent alcohol, tobacco and drug use, postpone sexual activity, and reduce fighting and bullying⁵.
- The *Project Northland* intervention is designed to delay the age when young people begin drinking, reduce alcohol use among young people who have already tried drinking, and limit the number of alcohol-related problems of young people. At end of intervention, participants were less likely to abuse substances, and have lower rates of past month use⁶.



What does the SAFE and SOUND survey tell us about age of first use?

As seen in Figure 4 below, Livingston and Washtenaw youth 12-17 years initiate alcohol at age 13.3 years; while initiating marijuana at age 14.

Figure 4



How does this data help us better understand substance abuse prevention needs?

Substance initiation occurs in early adolescence, as early as 13 years. Therefore, prevention interventions must commence far earlier before adolescents have begun decision making regarding life and drug choices.

References:

- ¹ <http://www.oas.samhsa.gov/nsduh/2k8nsduh/2k8results.cfm#5.1>
- ² <http://www.oas.samhsa.gov/nsduh/2k8nsduh/2k8results.pdf>
- ³ <http://www.oas.samhsa.gov/nhsda.htm>;
<http://www.oas.samhsa.gov/nsduh/2k8nsduh/2k8results.cfm>
- ⁴ Morrison MA: Addiction in adolescents, In *Addiction Medicine* [Special Issue]. West J Med 1990 May; 152:543-546.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1002408/pdf/westjmed00117-0081.pdf>
- ⁵ <http://www.allstarsprevention.com/>
- ⁶ NREPP. www.nrepp.samhsa.gov

How is 'Driving Under the Influence (DUI)' defined?

The driving or operating of any vehicle while under the influence of liquor or drugs.

How do we compare?

DUI Arrest Rates Per 100,000¹

Juveniles	2000	2006	% change
Michigan	13.9	13.8	-.01%
Washtenaw	9.8	9.4	-.04%
Livingston	19.9	15.6	-22%
Adults	2000	2006	% change
Michigan	741.5	619.3	-16%
Washtenaw	280.6	395.1	+40%
Livingston	629.5	500.5	-20%

*Michigan State Police Uniform Crime Reports

Who is most likely to be arrested for DUI?

National data from the National Survey on Drug Use and Health² indicates:

- Persons 21-25 years old are 60% more likely to be arrested for DUI compared to their 26-34 year old counterparts. DUI arrest rates decrease with increasing age.
- Minority groups, including Native American, Hispanics and African Americans, have significantly higher rates of DUI compared to Non-Hispanic Whites.
- Residents of small metropolitan counties are much more likely to be arrested for DUI than large metropolitan county residents.

- Males are nearly six times more likely to have been arrested for DUI in the past year compared to females.
- In 2009 in Michigan³, while males were three times as likely to be arrested for DUI, DUI arrest rates for females have not been decreasing as rapidly as males' rates in the past decade.
- Underage girls are much more likely to drink in a motor vehicle than boys and older women. Approximately 13% of 16 year old females last drank alcohol in a car or other motor vehicle, compared to only 2% of 20 year old females and 7% of 16 year old males⁴.

What are the trends regarding DUI arrests?

- Drugs have become a prominent factor in DUI arrests, even outpacing impairment from alcohol.
- The 2009 Michigan Drunk Driving Audit⁵ shows declines in alcohol-related crashes, fatalities and arrests, but notes increases in crashes and injuries involving drugs.

What don't we know?

- There are many impaired drivers who are not arrested. According to the 2005 Michigan Impaired Driving Plan⁶, studies suggest that there is one arrest made for every 80-100 incidences of driving with Blood Alcohol Content (BAC) over .08.
- While BAC is a standard measure of impaired driving under the influence of alcohol, there is no comparable quantifiable measure of illicit drug (or legal prescription) effects.

- While males and minority group members are more likely to be arrested for DUI, it is unclear whether this reflects more DUI behavior or rather, enforcement policies or resources that limit enforcement in other groups.

How does a DUI arrest affect recovery?

- Among adults aged 18 or older, national data suggest that those who are unemployed are most likely to report that they have driven under the influence of drugs in the past year⁷. Employment opportunities are important factors in recovery.
- When females are referred to substance treatment by the criminal justice system, employed females are three times more likely to be referred through DUI programs than unemployed females. The DUI arrest may provide the opportunity to begin recovery.



Are there community based interventions proven to reduce DUI?

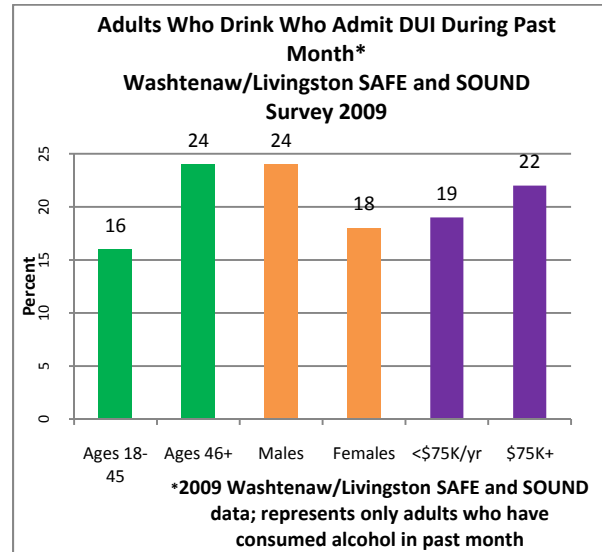
The *Community Trials Intervention to Reduce High Risk Drinking Intervention*⁸ is a multi-component, community-based program developed to alter the alcohol use patterns and related problems of people of all ages. The program incorporates a set of environmental interventions that assist in (1) restricting alcohol access through alcohol outlet density control; (2) enhancing responsible beverage service (3) increasing law enforcement and sobriety checkpoints (4) reducing youth access to alcohol by training alcohol retailers to avoid selling to minors; and (5) forming the coalitions needed to implement and support the interventions. Additionally, the Michigan Governor's Traffic Safety Advisory Commission published the 'Impaired Driving Action Plan'⁹ in 2005. The Plan outlines enforcement, education, judicial and legislative strategies customized for Michigan drivers. Strategies include (but are not limited to) the following:

- Promote increased support of national crackdown periods by law enforcement agencies
- Server training and education
- Encourage development of DUI courts
- Reinstitute sobriety checkpoints



What does the SAFE and SOUND survey tell us about the link between DUI and substance abuse?

- Livingston and Washtenaw male adults are twice as likely to identify having driven while under the influence of drugs or alcohol.
- Contrary to national data, older adults and those in higher income brackets report higher DUI rates than their younger and less wealthy counterparts.



How does this information help us understand substance abuse prevention needs in Livingston and Washtenaw Counties?

- Approximately 1% of all incidents of DUI result in an arrest. More consistent enforcement is necessary to identify drunk or drugged drivers.

- DUI campaigns must acknowledge the significant impact of both illicit and prescribed drugs on impaired driving.
- Young adults, males and minority group members are much more likely to be arrested for DUI than females and non-minority groups. Preventionists need to explore whether this fact reflects actual increased DUI behaviors or enforcement practices and resources that limit arrests in older adults, females and non-minority groups.

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How is 'absenteeism' measured?

Frequent absenteeism is a significant predictor of dropping out. It also is the most common indicator of student engagement. Students who are chronically absent due to poor attendance, frequent suspensions, or long expulsions, are disengaged from the academic and social life of school¹. School and school district attendance rates are based on 1) each student's total possible number of attendance days that year, based on the student's date of enrollment, and 2) each student's actual days of attendance, divided by the total attendance days possible for that student.

How do we compare?

As part of the 'Adequate Yearly Progress' (AYP) indicators required by the Michigan Department of Education (MDE), schools and school districts must report attendance rates each school year.

Table 1 - 2008-2009 Academic School Year Attendance Rates for Livingston and Washtenaw Counties

State of Michigan	94.3
Washtenaw	
Milan Area Schools	66.6
Washtenaw ISD	88.7
Eastern Washtenaw Multicultural Academy	89.6
Willow Run Community Schools	92.7
Ann Arbor Learning Community	93.0
New Beginnings Academy	93.4
Lincoln Consolidated School District	93.6
Honey Creek Community School	94.0
South Arbor Charter Academy	94.2
School District of Ypsilanti	94.5
Whitmore Lake Public Schools	95.0
Fortis Academy	95.2
Saline Area Schools	95.3
Victory Academy Charter School	95.3
Ann Arbor Public Schools	95.4
Chelsea School District	95.4
Dexter Community School District	96.3
Manchester Community Schools	96.4
Central Academy	98.5
Washtenaw Technical Middle College	98.8
Livingston	
Charyl Stockwell Academy	95.1
Pinckney Community Schools	96.0
Fowlerville Community Schools	96.0
Hartland Consolidated Schools	96.5
Howell Public Schools	96.6
Kensington Woods High School	99.9

As Table 1 illustrates, more than half of the school districts in Washtenaw County and all of the districts in Livingston County exceed the State of Michigan average for attendance rates.

Table 2 - State of Michigan
2008-2009 Attendance Rates by Subgroup

Category	Attendance Rate
All students	94.7%
Black/African American	91%
Students with Disabilities	93.5%
American Indian or Alaska Native	93.7%
Hispanic or Latino	94.1%
Limited English Proficient	94.6%
Multiracial	94.8%
Economically Disadvantaged	94.8%
White	95.7%
Asian	96.5%

Which groups are more likely to be absent?

- Table 2 shows the variance between Michigan subgroups categorized by MDE. Black and African American students have the greatest burden regarding absences at 91%, followed by disabled students and American Indian/Alaskan Natives.
- Risk factors for absenteeism include²:
 - social and school phobia
 - anxiety
 - depression
 - lack of parental supervision
 - lack of school sanctions for unexcused absences
 - low self esteem
 - poor academic achievement
 - retention in previous grades

What is the relationship between absenteeism and substance abuse?

- According to numerous studies, significant links exist between youth risk behaviors and academic achievement and absenteeism. Youth with higher grades are less likely to use alcohol, marijuana or other illicit drugs than youth with lower grades³.
- Researchers have identified clear links between absenteeism and substance abuse, along with numerous poor health behaviors. This relationship is sustained even after controlling for demographic variables.
- School connectedness even in early secondary school predicts late teenage substance use, mental health and academic outcomes⁴.
- School environment can also influence the likelihood of substance abuse. School environments that reduce student disengagement, increase student participation, improve relationships and promote a positive school ethos may be associated with reduced drug use, as well as other risky health behaviors⁵.



How does absenteeism affect recovery?

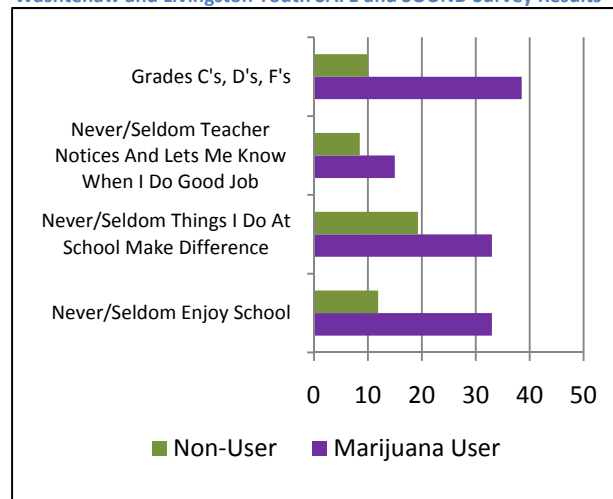
- Education and subsequent employment opportunities are integral factors in successful substance abuse treatment and continued sobriety. Chronic absenteeism is closely linked to school success and graduation.
- A critical aspect in increasing the likelihood of successful recovery is to promote and support youth resilience. Resilience involves developing and maintaining positive, functional habits and patterns in the face of risk. Successful school attendance is a primary protective aspect of resilience for youth, as it leads directly to academic success, future educational and employment opportunities, thereby decreasing the likelihood of returning to drug or alcohol abuse⁶.

What does the SAFE and SOUND survey results tell us about the link between absenteeism and substance abuse in Livingston and Washtenaw County youth? While SAFE and SOUND did not include questions regarding absenteeism from school, it did include a number of related protective factors regarding school connectedness and academic achievement. These factors are closely related to the risk of chronic absenteeism. Figure 1 illustrates that Livingston and Washtenaw County youth 12-17 that use marijuana are more likely to have lower grades (C's, D's and F's), say that their teacher never or seldom notices when they do a good job, never or seldom enjoys being at school and never or seldom feels that what they do at school makes a difference, compared to their non-using counterparts.

Are there community level, evidence based interventions proven to decrease absenteeism?

- *Positive Action*⁷ is an integrated and comprehensive program that is designed to improve academic achievement; school attendance; and problem behaviors such as substance use, violence, suspensions, disruptive behaviors, dropping out, and sexual behavior. It is also designed to improve parent-child bonding, family cohesion, and family conflict.
- *Reconnecting Youth: A Peer Group Approach to Building Life Skills (RY)*⁸ is a school-based prevention program for students ages 14-19 years that teaches skills to build resiliency against risk factors and control early signs of substance abuse and emotional distress. RY targets youth who demonstrate poor school achievement and high potential for school dropout.

Figure 1-Marijuana Use, Academic Achievement and Attitudes toward School
Washtenaw and Livingston Youth SAFE and SOUND Survey Results



How does this information help us to understand substance abuse prevention needs?

- Students are more likely to engage in healthy behaviors and succeed academically when they feel connected to school.⁹
- Tracking absenteeism for individual students creates opportunity for identifying youth at risk of substance abuse and dropout who could benefit from prevention interventions.
- Chronic absenteeism is a sentinel event signaling substance abuse, mental or physical disabilities, family disorganization, lack of sense of school connectedness or other personal, family or school related obstacles.

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How is 'high school dropout' measured?

The best measures for this indicator are cohort graduation rates and dropout rates. Cohort graduation rates are calculated by tracking individual students beginning when they first enter in 9th grade and anticipating a four-year expected completion of high school. The formula takes into account students who transfer to different schools. The dropout rate is based on the students from a four-year cohort who have officially dropped out of school and haven't re-enrolled in another school¹.

How do we compare?

Table 1 – High School Graduation Rates
Local, State and National 2008-2009 Academic Year²

Livingston	Washtenaw	Michigan	U.S. (2005-2006)
88%	83%	75%	73%

- Table 1 indicates that Livingston and Washtenaw counties have significantly higher graduation rates than Michigan or the U.S.
- While Livingston and Washtenaw County graduation rates are relatively high, profound disparities exist within subgroups of the county. Washtenaw County graduation rates for economically disadvantaged youth are only 56%; while 60% of Michigan economically disadvantaged youth graduated in 2009.
- Four school districts within Washtenaw County have graduation rates under 80%.



Which groups are more likely to dropout of high school?

Nationally, reasons for high school dropout include³:

- Personal reasons:
 - Needed employment
 - Parenthood
 - Caring for family member
- Academic performance:
 - Failing grades
 - Poorly prepared for high school
 - Required to repeat a grade
- Learning environment issues:
 - Classes uninteresting
 - Lack of motivation
 - Performed minimal homework
 - Low expectations from others

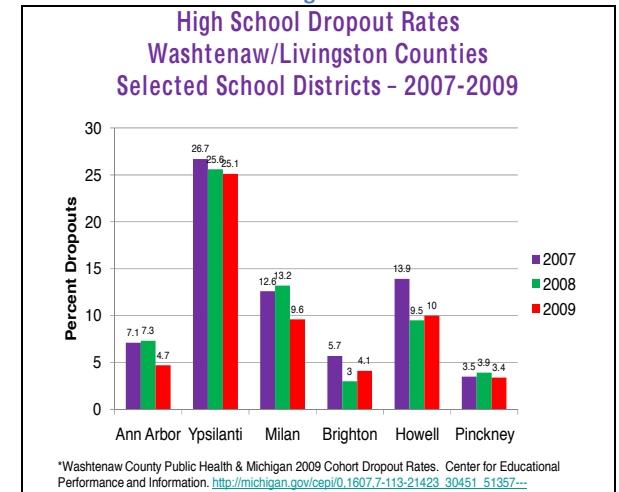
Other predictors of dropout includes 1) missing five weeks of school or more, and 2) receiving a failing final grade in Math or English⁴.



What are the trends regarding high school dropout rates?

According to the National Center for Educational Statistics, United States' dropout rates have declined between 2004-2007 (4.7% to 3.5%)⁵. Locally, rates have dropped in most school districts in Livingston and Washtenaw during 2007-2009. However, the rate of decline varies by district. Further, as seen in Figure 1 below, significant disparities exist between districts.

Figure 1



What is the relationship between high school dropout and substance abuse?

- According to the U.S. Substance Abuse and Mental Health Services Agency (SAMHSA), white and black high school dropouts 18-24 years old were 60% and 150% more likely to have used illicit substances in the past month than their counterparts who graduated from high school⁶ in 2002.
- Adult dropouts 18-24 years old were 38% more likely to smoke cigarettes than adults who graduated.
- Conversely, 18-24 year old high school graduates were 30% more likely to have used alcohol in the past month than adults who dropped out of high school.
- Academic achievement also predicts substance abuse. Students who demonstrate a deterioration of their academic achievement over time are more likely to start using marijuana. Poor academic achievement and deterioration of academic achievement should be considered as risk factors for initiation of marijuana use among rural adolescents⁷.

How does high school graduation and dropout affect recovery?

- Education and subsequent employment opportunities are integral factors in successful substance abuse treatment and continued sobriety. In 2005, clients with 12 or more years of education who were discharged from intensive outpatient substance abuse treatment were 14% more likely to complete treatment than adults with less than 12 years of school. Clients who completed short and long term residential substance abuse treatment were 25% and 15% more likely to have 12 years or more of education than those who did not complete treatment⁸.
- According to SAMHSA, a “recovery oriented system of care (ROSC)⁹ identifies and builds upon each individual’s assets, strengths, and areas of health and competence to support achieving a sense of mastery over his or her condition while regaining a meaningful, constructive, sense of membership in the broader community.”
- Since substance abusers frequently have less education than their non-using counterparts, they have greater challenges in accessing advanced education and employment.
- Consequently, the ROSC model is a framework that includes the need for agencies to offer a range of work and educational opportunities, eliminate work eligibility requirements, and strengthen linkages to vocational and educational providers.

Are there community level interventions proven to reduce the effects of the high school dropout/substance abuse relationship?

According to the SAMHSA Model Programs¹⁰:

- *Across Ages* is a school and community-based drug prevention program for youth 9 to 13 years old that seeks to strengthen the bonds between adults and youth and provide opportunities for positive community involvement. Outcomes include improved grades, school attendance, attitudes towards school and decreased suspensions, and decreased alcohol and tobacco use.
- *CASASTART* is a community-based, school-centered social support program designed to keep high risk 8 to 13 year old youth free of drug and crime involvement. Outcomes include significantly higher levels of promotion to the next grade, participation in after school and learning activities, participants are 20% less likely to use drugs in the past 30 days; 60% less likely to sell drugs; and 20% less likely to commit violent acts.
- Both Livingston and Washtenaw counties opened county-wide schools targeting dropouts in the Fall of 2010. The Widening Advancements for Youth (W-A-Y) Program is a school designed around individual student interests in a project-based, online learning environment. More information about the program can be found at www.wayprogram.net. Additionally, both counties adopted a data management system that will allow educators to identify students who are showing specific performance patterns and may be at-risk for dropping out.

How does this information help us to understand substance abuse prevention needs?

- Dropping out is *not* a sudden act, but rather a very gradual process. Early warning systems can help identify students early so appropriate supports can be provided.
- Changing the learning environment to make the school experience more relevant and engaging will help keep students in school.
- Access to academic and social supports for struggling students is necessary to prevent dropping out¹¹.

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- ⁹ <http://rcsp.samhsa.gov/pubs/rsswhitepaper.pdf>
- ¹⁰ SAMHSA Model Programs: Model Prevention Programs Supporting Academic Achievement. http://captus.samhsa.gov/northeast/academics/model_programs.htm
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How is 'divorce' measured?

Divorce rates are defined as divorced persons per 1,000 population rather than events per population (Number of divorced person/resident population) X 1,000.

How do we compare?

Figure 1 below indicates that Washtenaw County has the lowest divorce rate compared to Livingston or Michigan. Additionally, rates fell by 50% for Washtenaw between 2000 and 2008.

Figure 1 - Divorce Rates by Year for Michigan, Livingston and Washtenaw Counties

	Livingston	Washtenaw	Michigan
2000	7.4	10.2	7.8
2001	8.6	6.6	7.8
2002	8.0	6.3	7.5
2003	7.9	6.0	7.1
2004	7.3	5.9	6.9
2005	6.6	5.8	6.8
2006	7.5	6.0	6.9
2007	7.6	5.8	6.9
2008	7.5	5.1	6.7

What groups are at greatest risk for divorce?

- Older women
- One or more births
- Some college (females)
- High school diploma (males)
- Poverty
- U.S. born



What is the relationship between substance abuse and divorce?

- A consumption increase of 1 liter of alcohol per capita brings about an increase in the divorce rate of about 20%. This finding contrasts with results, using expenditures as the aggregate alcohol measure, that show that an increase of 1/1,000 in the divorce rate leads to a 10% increase in alcohol expenditures¹.
- Children in divorced families have lower academic performance and achievement test scores compared to children in continuously married families. The differences are modest and decrease, but do not disappear, when income and socioeconomic status are controlled².

- Children from divorced families are two to three times more likely to drop out of school compared to children of intact families, and the risk of teenage childbearing is doubled³.
- Adolescents from divorced families scored lower on tests of math and reading both prior to and after parental separation compared with adolescents in married families, and their parents were less involved in their adolescents' education⁴.
- Children with parents who were separated or divorced initiate drinking earlier compared to their peers and they may be more likely to drink to cope with problems rather than for pleasure or to be social⁵.

How is divorce and recovery related?

- Persons in recovery are more likely to succeed if they have adequate support systems, including spouse or significant others who are invested in their sobriety.
- Sobriety can often change the balance in relationships that were founded and based largely by sharing drugs or alcohol experiences. Patterns of interaction and behavior are likely to change significantly when the addict recovers.

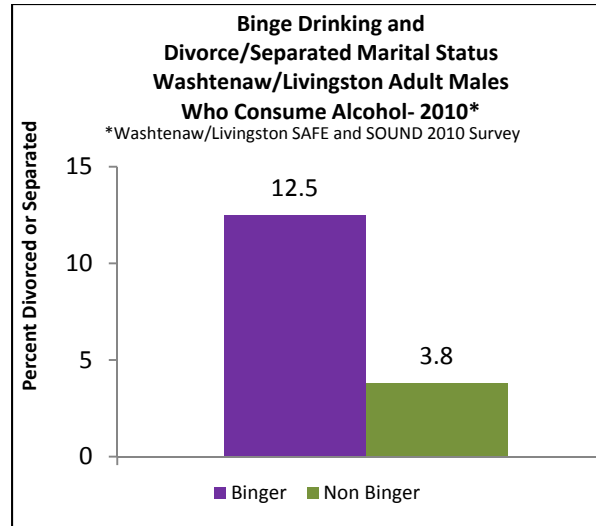
Blog comment from Al-Anon website:

"As a codependent, I know that I felt superior whenever I was involved with an alcoholic/addict. I was in charge, yet still the "martyr" and the "victim". Those were roles I knew how to play. When the alcoholic/addict does something so unexpected like GETTING SOBER (gasp!), well I was still sick!! And didn't know it!! And didn't know my role anymore!! And angry over past issues!! And suddenly, it could ALL be about me..."

Are there community based interventions proven to reduce the effects of divorce on substance abuse? Children in the Middle (CIM) helps children and parents deal with children's reactions to divorce. The stress and anxiety experienced by children of divorce can increase children's risk for behavior problems, depression, delinquency, substance use, teen pregnancy, school failure or dropout⁶.



What does the SAFE and SOUND survey tell us about the link between alcohol consumption and the divorce? Adult males who binge drink are three times more likely to be divorced or separated than males who do not binge drink alcohol.



How does this information help us better understand substance abuse prevention needs?

- Children of divorced parents are both at higher risk for earlier and sustained substance abuse, as well as divorce.
- Interventions aimed at decreasing substance abuse risk in divorced families should be family focused rather than individual focused.
- Focus health education on healthy coping mechanisms.

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How are 'DUI Crashes' measured?

Drinking prior to the crash by a driver, pedestrian, or cyclist as reported by the police, the coroner, or other accepted authorities.

How do we compare?

	Washtenaw 2009	Livingston 2009	Michigan 2009
% of Total Crashes Involving Alcohol	3.3%	4.2%	3.7%
% of Fatal Crashes Involving Alcohol	32%	28.6%	34.3%

Who is most likely to be involved in motor vehicle crashes involving alcohol?

- Youth aged 24 years and younger comprise 35% - 45% of alcohol related crashes.
- Alcohol related crashes occur more frequently on local roads than on interstate highways, U.S. Routes and State Routes combined.
- Livingston has a higher percent of crashes involving alcohol compared to Washtenaw or Michigan.

What don't we know?

Various law enforcement agencies may assess and report alcohol involvement differently. Therefore, we cannot assume that excess rates actually reflect higher DUI rates, but potentially more stringent enforcement and recording of the offenses.

What is the relationship between alcohol use and DUI?

National data indicates:

- Underage persons who are current drinkers averaged more drinks per day than adults aged 21 and older¹.
- Young adults aged 18 to 25 who are current drinkers were more likely than any other age group to drive under the influence of alcohol in the past year².
- Drivers aged 15 to 17 in States with the most restrictive driver licensing laws had lower rates of heavy drinking compared to those in States with the least restrictive laws³.



How do DUI offenses affect recovery?

- Persons in recovery are more likely to succeed if they have access to work and educational opportunities and have a paid job.
- DUI offenses may result in loss of driver's license. Alternate plans for transportation for those in recovery may be necessary to assure steady employment or school attendance.

Are there community based interventions proven to reduce the effects of DUI and substance abuse relationship?

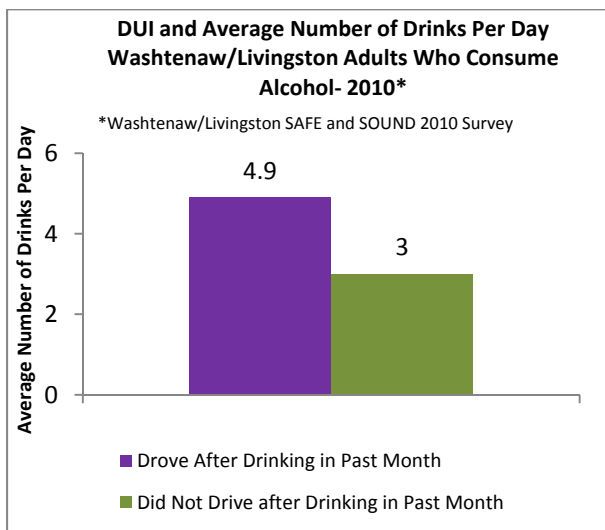
The *Community Trials Intervention to Reduce High Risk Drinking Intervention*⁴ is a multi-component, community-based program developed to alter the alcohol use patterns and related problems of people of all ages. The program incorporates a set of environmental interventions that assist in (1) restricting alcohol access through alcohol outlet density control; (2) enhancing responsible beverage service (3) increasing law enforcement and sobriety checkpoints (4) reducing youth access to alcohol by training alcohol retailers to avoid selling to minors; and (5) forming the coalitions needed to implement and support the interventions.

Program outcomes include:

- 6% decrease in the amount the intervention community drinks (p=0.008)
- Monthly average nightly injury crashes decreased by 10% (p=0.009)
- 6% decreases in crashes involving drunk drivers (p=0.001)
- 51% decrease in those who drove when they thought they were "over" the legal alcohol limit

What does the SAFE and SOUND survey tell us about the link between alcohol consumption and the risk of DUI?

Adults who drink and drive have a higher average number of drinks per day than adults in Livingston and Washtenaw who do not drink and drive.



How does this information help us better understand substance abuse prevention needs?

- The percent of all motor vehicle crashes involving alcohol, as well as the percent of fatal crashes involving alcohol has remained steady during 2004-2009.
- Underage drinkers and young adults are more likely to drink and drive than older drinkers.
- Younger drinkers are more likely to drink more drinks.
- Livingston and Washtenaw County adults who have reported drinking and driving are much more likely to drink more drinks on each occasion than drinkers who do not drive after drinking.



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⁴ Community Trials to Reduce High Risk Drinking Intervention. SAMHSA's National Registry of Evidence Based Programs and Practices. 2008

<http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=9>

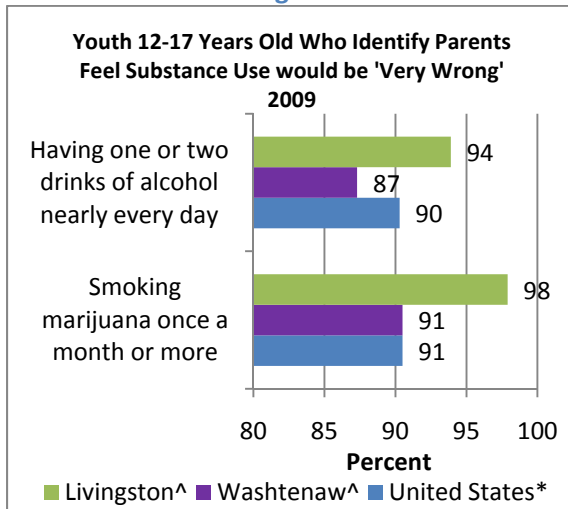
How is 'perceptions of parental disapproval' measured?

Perceptions of disapproval, especially parental, influence young people's decisions to use drugs and alcohol. Findings from a 2008 research study suggests that parents can have a robust protective role even greater than peer influences, especially among sixth graders as compared to eighth graders¹. These perceptions are measured by survey questions asking youth 'How wrong do your parents think it would be for you to (smoke cigarettes, marijuana, binge drink...etc.)? 'Very wrong, wrong, a little wrong or not wrong at all.'

How do we compare?

Figure 1 below indicates that youth 12-17 years in Livingston County perceive greater parental disapproval of alcohol and marijuana use compared to Washtenaw County youth, or youth nationally.

Figure 1



^SAFE and SOUND Survey; *NSDUH

What are the trends regarding perceptions of parental disapproval?

- Table 1 below indicates that nationally, youths' perceptions of parental disapproval of substance use have increased for marijuana, alcohol and cigarettes during 2002-2008.
- Nationally, youths who are younger, female, or Asian are more likely to think that their parents would strongly disapprove of their substance use compared to youths who are older, male or from other racial/ethnic groups².

Table 1 - Trends in Perceptions of Parental Disapproval for Substance Use Youth 12-17 Years United States NSDUH 2009 Survey³

	2002	2008	2009
Parents would disapprove of marijuana use	89.1	90.8	90.5
Parents would disapprove of alcohol use	89	89.7	90.3
Parents would disapprove of cigarette use	89.5	92.4	92.6

What is the link between perceptions of parental disapproval and substance abuse?

Table 2 below indicates that nationally, youths' perceptions of parental disapproval of substance use is closely related to past month use. For instance, youth who do not use marijuana or cigarettes are approximately six times more likely to identify that their parents 'strongly disapprove' of use compared to youth who use marijuana or cigarettes.

Table 2 - Past Month Use and Perceptions of Parental Disapproval Youth 12-17 Years United States NSDUH 2009 Survey⁴

	Youth who used marijuana in past month	Youth who used cigarettes in past month
Parent would strongly disapprove of marijuana use	4.8	
Parents would not strongly disapprove of marijuana use	31.8	
Parents would strongly disapprove of cigarette use		6.5
Parents would not strongly disapprove of cigarette use		40.5



Are there community based interventions proven that involve increasing parental disapproval and youth perceptions of parental disapproval of substance abuse?

The *Parents Who Host, Lose The Most: Don't be a party to teenage drinking* public awareness campaign educates parents about the health and safety risks of serving alcohol at teen parties and increases awareness of and compliance with underage drinking laws⁵.

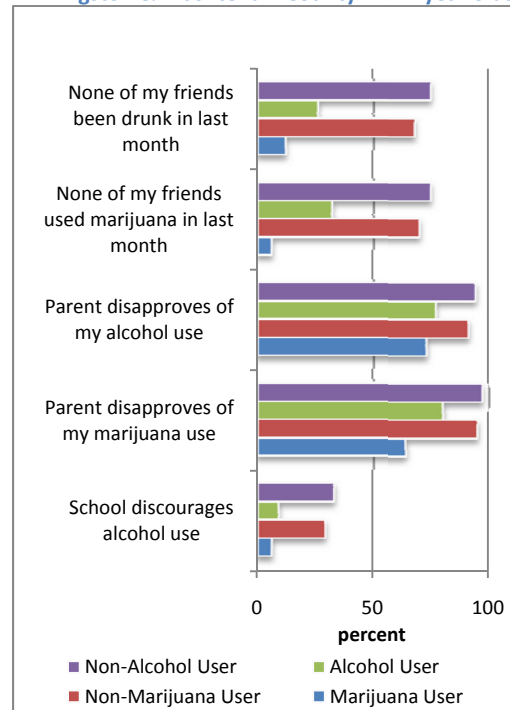
Program outcomes include:

- 33% increase in parents who would not host parties if they knew the info
- 36% decline in children attending alcohol containing parties
- 32% increase in discussion between youth and parents due to campaign
- 29% decrease in parents who know others who host alcohol containing parties for their kids
- 42% decline in children who know of parents who host parties serving alcohol

What does the SAFE and SOUND survey tell us about the influence of parents on their children's substance abuse?

- Figure 2 below indicates that Livingston and Washtenaw County youth who use alcohol or marijuana perceive less peer, parental and school disapproval than their non using counterparts.
- Livingston and Washtenaw County youth who identified NOT using alcohol identified that "parents do not allow me to" as one of the most important reasons to not use.
- Parents of non using youth have stricter rules and perceive that they have more influence over their children's drug or alcohol use⁶.

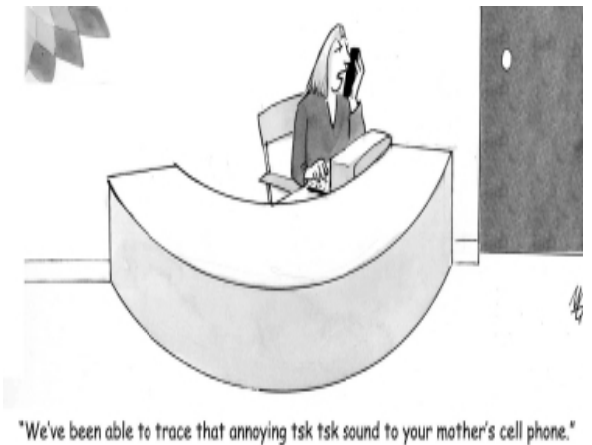
**Figure 2 – Peer, Parental and School Disapproval and Alcohol and Marijuana Use
Livingston & Washtenaw County 12-17 year olds**



How does this information help us better design and implement prevention interventions?

- Peer pressure and peer influence are associated with substance use among youth. Parents' influence is particularly powerful for younger teens; while peer influence becomes increasingly more important for older teens.
- It is necessary for parents to have correct information to share with their children and to know that talking with them makes a difference.

- Programs targeted towards parents should be designed to recruit parents who are less likely to express disapproval of substance use to their children, including parents who are more tolerant of drug use; parents who lack confidence and knowledge about substance use; parents with significant career and home responsibilities; and parents who believe that youth use is inevitable.



References:

¹ From *The Journal of Primary Prevention*
Perceived Parental and Peer Disapproval Toward Substances influences on Adolescent Decision-Making
Thomas M. Sawyer; John F. Stevenson
Posted: 01/12/2009; J Prim Prev. 2008;29(6):465-477. © 2008 Springer

² NSDUH, *ibid*.

³ Substance Abuse and Mental Health Services Administration. (2010). *Results from the 2009 National Survey on Drug Use and Health: Volume I. Summary of National Findings* (Office of Applied Studies, NSDUH Series H-38A, HHS Publication No. SMA 10-4856Findings). Rockville, MD.
<http://oas.samhsa.gov/NSDUH/2k9NSDUH/2k9Results.htm#6.3>

⁴ NSDUH *ibid*.

⁵ <http://drugfreealliance.org/pwh.php>

⁶ Pocket Profile – SAFE and SOUND Adult Survey Results. Washtenaw County Health Organization & Washtenaw County Public Health. 2009.

How is 'unemployment' measured?

Persons are classified as unemployed if they do not have a job, and have actively looked for work in the preceding four weeks, and are currently available for work.

How do we compare?

Livingston and Washtenaw County Unemployment rates are higher compared to the United States, but lower than those for Michigan. Livingston County rates are higher than, and have increased more rapidly than, those for Washtenaw County.

Unemployment Rates (July) 2000-2010¹

	2000	2010	% Increase
United States	4%	9.5%	137%
Michigan	3.8%	13.1%	244%
Washtenaw	3.1%	10%	222%
Livingston	2.8%	12.1%	332%

Who is most likely to be unemployed?

- Adult males, teenagers, Blacks, and Hispanics have the highest unemployment rates.
- Lower educational status is associated with higher unemployment rates. Unemployment rates decrease with higher educational levels².
- September 2010 national unemployment data identifies that persons employed in the construction industries have the highest unemployment rates (17.2%), followed by leisure and hospitality (11.4%) and agriculture (11.1%)³.

What don't we know?

The U.S. Bureau of Labor definition does not include people who are incarcerated; those who have lost their job and stopped looking for a job; self employed; retirees who want to work; disabled persons. The labor force includes only persons classified as employed or unemployed.

What is the relationship between substance abuse and unemployment?

- Long term involuntary unemployment is associated with heavy drinking⁴.
- One percent increase in unemployment is associated with a 28% increase in deaths from alcohol and 4.5% increase in suicides in persons less than 65 years⁵.
- Increased use of illicit drugs is associated with increased unemployment rates⁶.

How does unemployment affect recovery?

- Persons in recovery are more likely to succeed if they have access to work and educational opportunities and have a paid job.
- Employment rates for substance abusing populations ranged from 15% in 1980 to 30% in 1991 compared to 72% in 1980 and 77% in 1991 in the non-substance using population⁷.

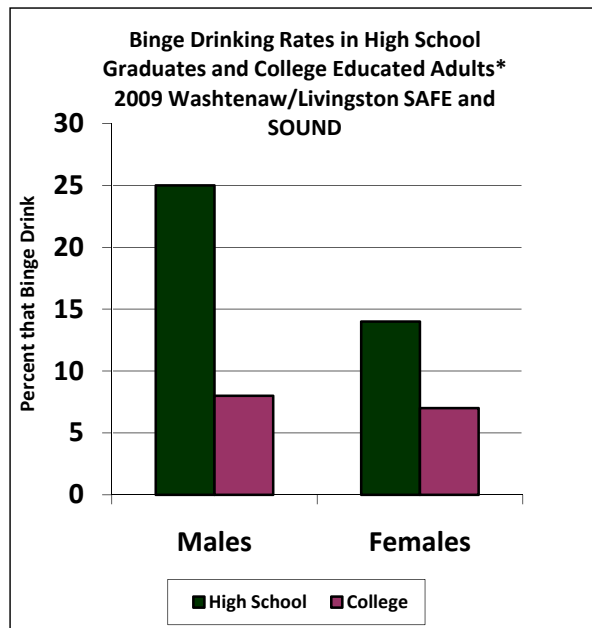


Are there community based interventions proven to reduce the effects of the unemployment/substance abuse relationship?

- Collaboration between independent and autonomous treatment and vocational agencies is critical for persons in substance abuse treatment and recovery. Effective collaboration is necessary to seeing the client in the broadest possible context, beyond the boundaries of the substance abuse treatment agency and its provider⁸.
- Customized Employment Supports (CES) helps methadone treatment patients, who are likely to have irregular work histories, attain rapid placement in paid jobs and increase their legitimate earnings compared to groups receiving standard vocational training. Evaluation studies have documented that the CES results in greater proportion of clients with paid formal and informal employment⁹.

What does the SAFE and SOUND survey tell us about the link between unemployment and substance abuse?

While the SAFE and SOUND survey did not determine employment status, educational status was identified by respondents. National and local data indicate that the lower the educational attainment, the higher the unemployment rate in adult population. Livingston and Washtenaw SAFE data indicates that males with a high school diploma have approximately four times higher binge drinking rates than their college educated counterparts. Females' binge drinking rates for high school graduates are twice that of college educated females.



*Adults that have consumed alcohol in last 30 days.

How does this information help us understand substance abuse prevention needs?

- Unemployment rates in our region have risen twice as fast as the national rate.
- Investing in substance abuse prevention and treatment reduces unemployment, absenteeism, tardiness, conflicts between employees, crime, and health care costs.
- Unemployment increases the likelihood of substance abuse.
- Substance abuse increases the likelihood of unemployment.



References:

- ¹ Local Area Unemployment Statistics. U.S. Dept of Labor, Bureau of Labor Statistics. October 13, 2010. <http://data.bls.gov:8080/PDO/servlet/SurveyOutputServlet;jsessionid=6230ce266b7715251762>
- ² <http://www.bls.gov/news.release/empsit.t04.htm>
- ³ <http://www.bls.gov/news.release/empsit.t14.htm>
- ⁴ Mossakowski, K. 'Is the duration of poverty and unemployment a risk factor for heavy drinking?' [Social Science & Medicine](#) **Volume 67, Issue 6**, September 2008, Pages 947-955.
- ⁵ Stucker, D., et al. 'The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis.' *The Lancet*, **Volume 374, Issue 9686**, Pages 315 - 323, 25 July 2009
- ⁶ Peck, D., Plant, M. 'Unemployment and illegal Drug Use.' *British Medical Journal*. Vol 293. October 11, 1986.
- ⁷ Young, Nancy. 'Integrating Substance Abuse Treatment and Vocational Services.' SAMHSA/CSAT Treatment Improvement Protocols. Executive summary. Treatment Improvement Series #38. <http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hssamhsatip&part=A68228>
- ⁸ Ibid. Young, Nancy. 'Integrating Substance Abuse Treatment and Vocational Services.'
- ⁹ <http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=79>