

Prepared by
SEOW/SPE Data Workgroup
March/April 2012





Data Workgroup Process

- Workgroup partners:
 - DOH; WSTSC; HCA; OSPI; DEL; DBHR
- Initial criteria identified and data gathered
- Reviewed and refined data
 - Indicators/data from partners;
 - Patterns of use
 - Not just targeting substances (age group, race/ethnicity)
- Current presentation



	Alcohol	Tobacco	Marijuana	Meth	Prescription Drug
Rates					
Trends					
Economic Impacts					
Social Impact					
Other criteria?					
OVERALL					



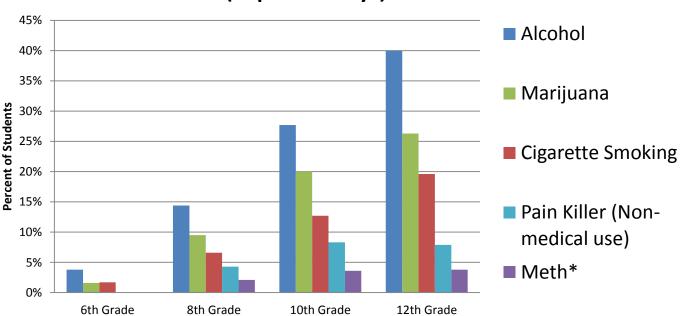


- Survey-based rates (not populationbased rates) for self-reported substance use
 - HYS
 - NSDUH
 - BRFSS



Rates: By Youth Age Groups

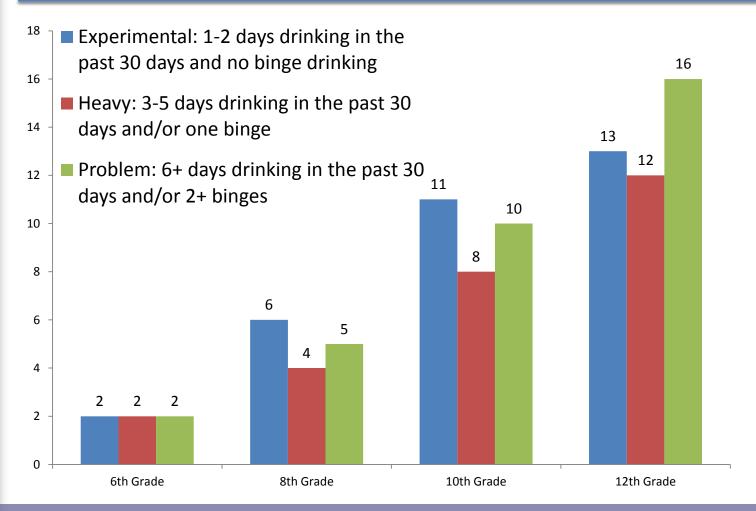
2010 Rates Youth substance use (in past 30 days)



Source: Healthy Youth Survey 2010/2008 *2008 rates. Data not available for 6 graders.



Alcohol Rates: By Youth Age Groups

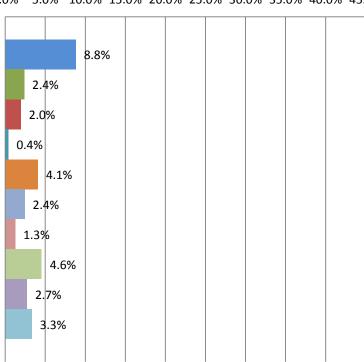




Rates: Youth

Patterns of Substance Use (Youth)

0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0% 40.0% 45.0%



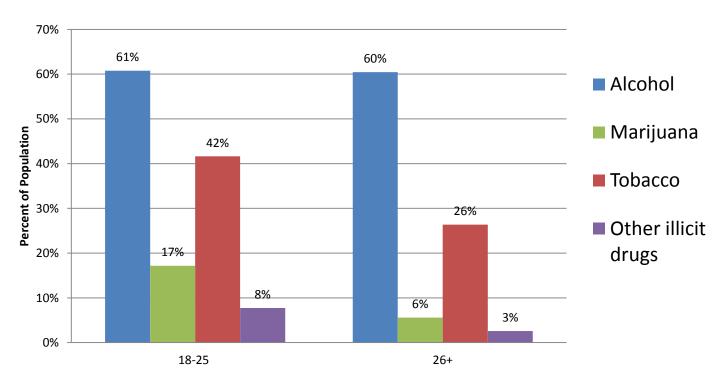
- alcohol only
- marijuana only
- tobacco only
- pain killer only
- alcohol + marijuana
- alcohol + tobacco
- marijuana + tobacco
- alcohol + tobacco + marijuana
- pain killer + 1 or 2 other substances
- all 4 subtances

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Source: Healthy Youth Survey 2010

Rates: By Adult Age Groups

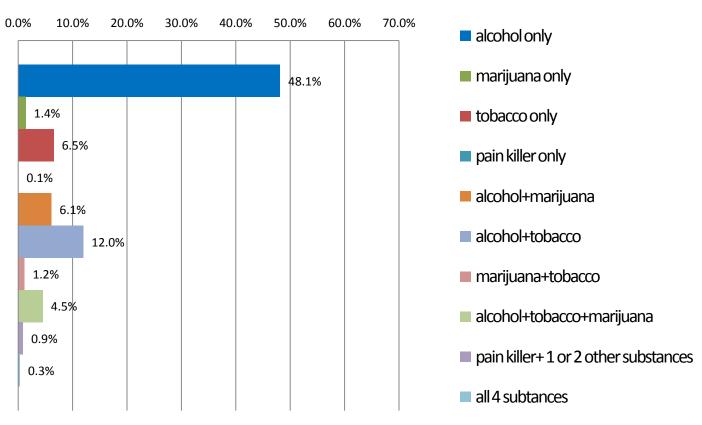
2008-2009 Substance use during past 30 days



Source: National Survey on Drug Use and Health

Rates: Adults

Patterns of Substance Use (Adult)

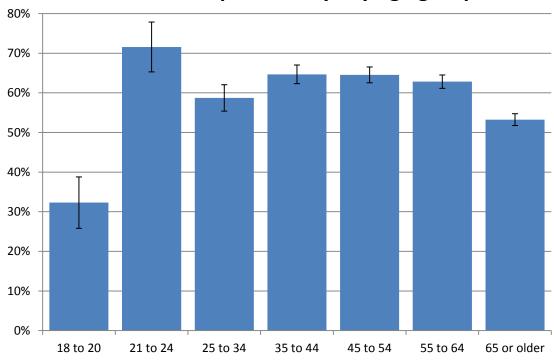


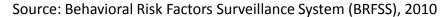
Source: Behavioral Risk Factors Surveillance System (BRFSS). Only respondents who answered questions regarding all four types of substances are included.



Alcohol Rates: By Adult Age Group

Had alcohol in past 30 days by age group

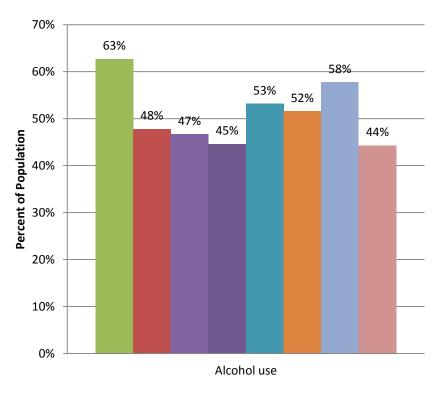






Alcohol Rates: By Race/Ethnicity

Used alcohol during past 30 days



- White, non-Hispanic
- Black, non-Hispanic
- Asian, non-Hispanic
- Native Hawaiian/Pacific Islander, non-Hispanic
- American Indian/Alaskan Native, non-Hispanic
- Other race only, non-Hispanic
- Multiracial, non-Hispanic
- Hispanic

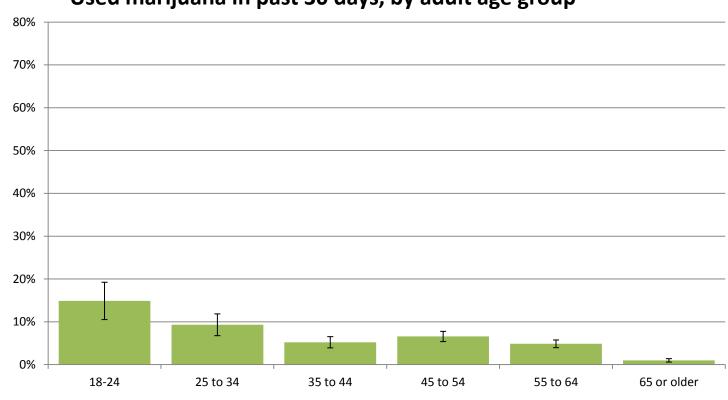
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Marijuana Rates: By Adult Age Group

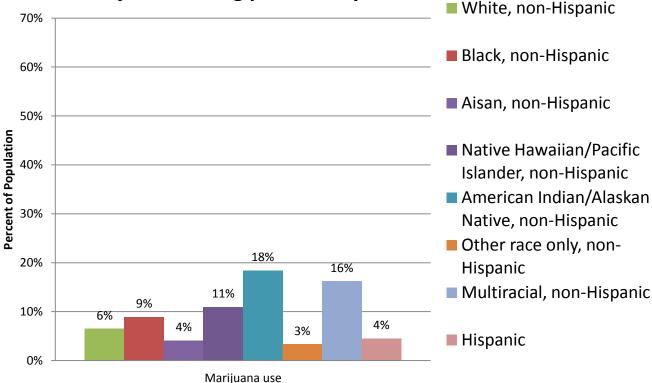
Used marijuana in past 30 days, by adult age group

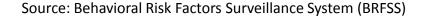




Marijuana Rates: By Race/Ethnicity

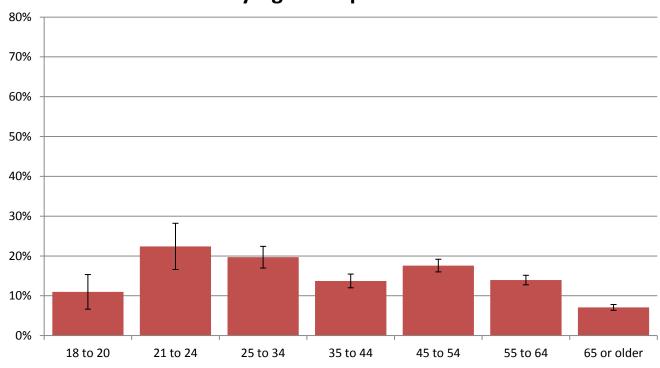
Used marijuana during past 30 days

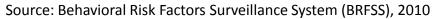




Cigarette Smoking Rates: By Adult Age Group

Current Smoker By Age Group



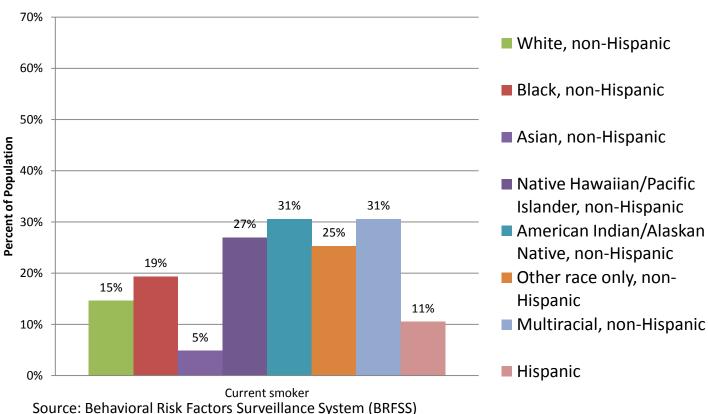


Note: BRFSS defines current smoker as someone who has smoked at least 100 cigarettes lifetime and who is currently smoking.



Cigarette Smoking Rates: By Race/Ethnicity

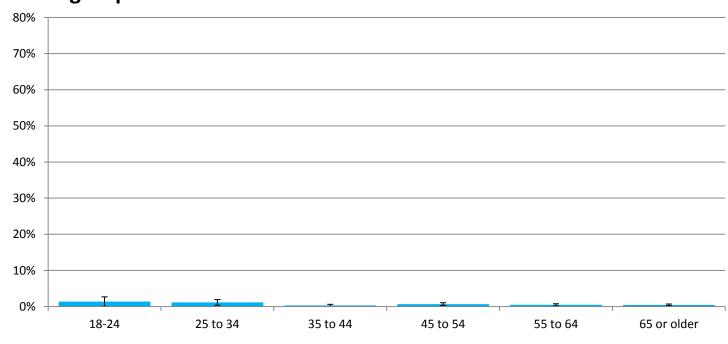
Currently smoking cigarettes some days or everyday

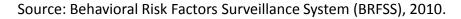




Non-medical Use of Pain Killer: By Adult Age Group

Used pain killers to get high in past 30 days, by adult age group

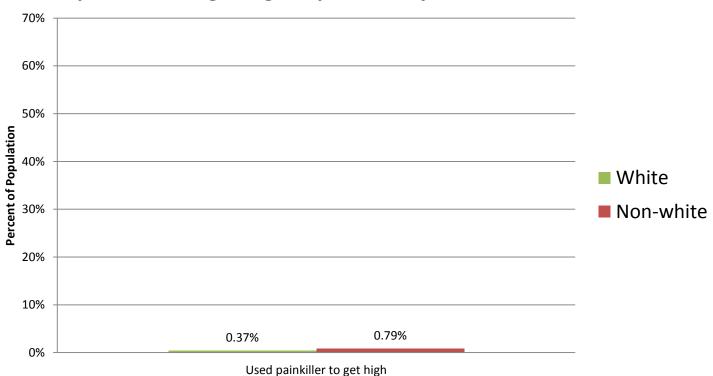






Pain Killer Rates: By Race/Ethnicity

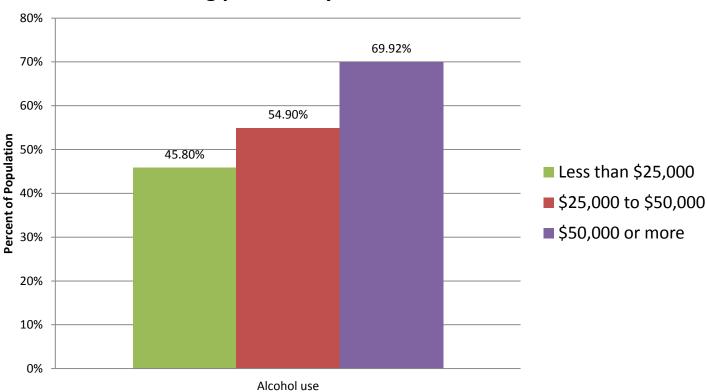
Used pain killer to get high in past 30 days



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Alcohol Rates: By Income Group

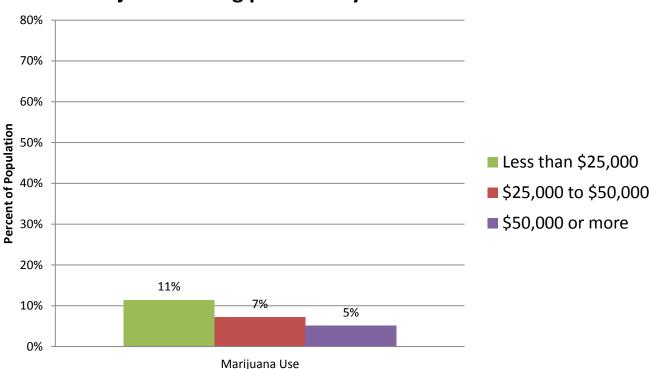
Used alcohol during past 30 days





Marijuana Rates: By Income Group

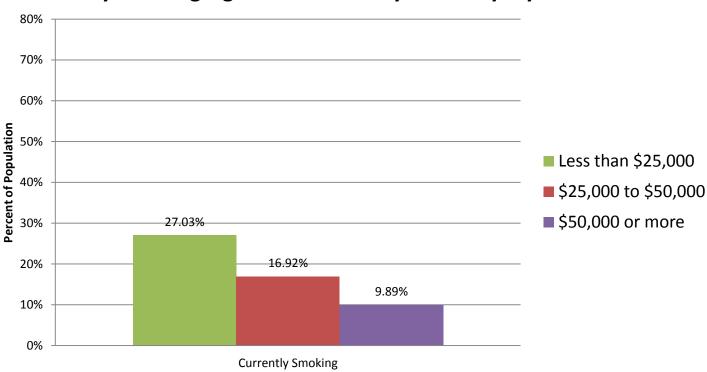
Used marijuana during past 30 days





Cigarette Rates: By Income Group

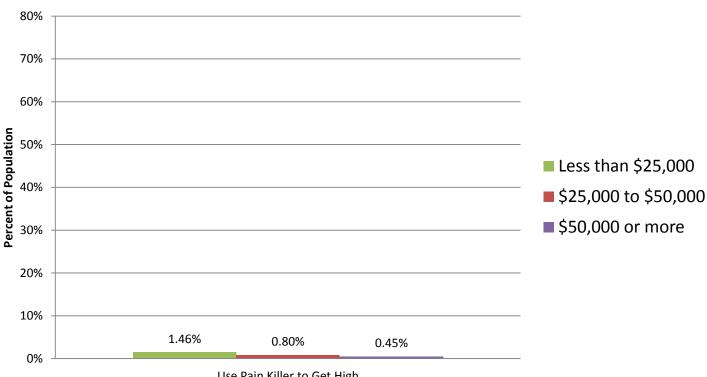
Currently smoking cigarettes some days or everyday





Pain Killer Rates: By Income Group

Used pain killer to get high in past 30 days



Use Pain Killer to Get High



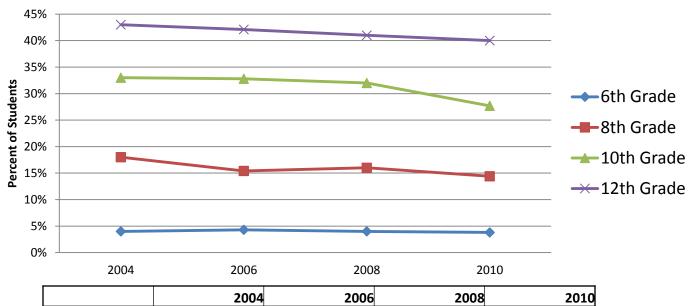
Recent trend lines

Also see historical trends (handout)



Alcohol Trends: By Youth Age Groups

Had alcohol during past 30 days (Youth)



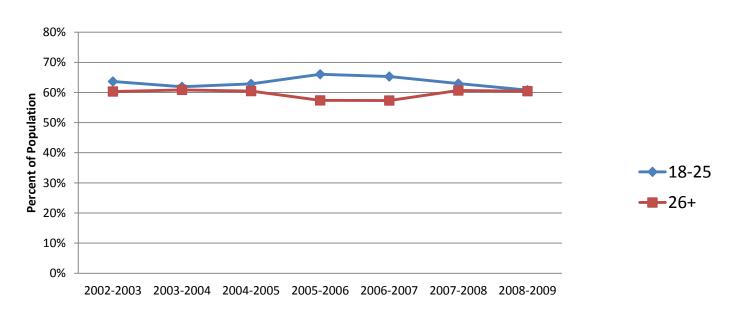
	2004	2006	2008	2010
6th Grade	4%+/-1	4%+/-1	4%+/-1	4%+/-0
8th Grade	18%+/-2	15%+/-2	16%+/-2	14%+/-1
10th Grade	33%+/-2	33%+/-2	32%+/-2	28%+/-2
12th Grade	43%+/-2	42%+/-2	41%+/-3	40%+/-2

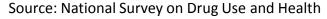
Source: Healthy Youth Survey



Alcohol Trends: By Adult Age Group

Had alcohol in the past month (Adults)

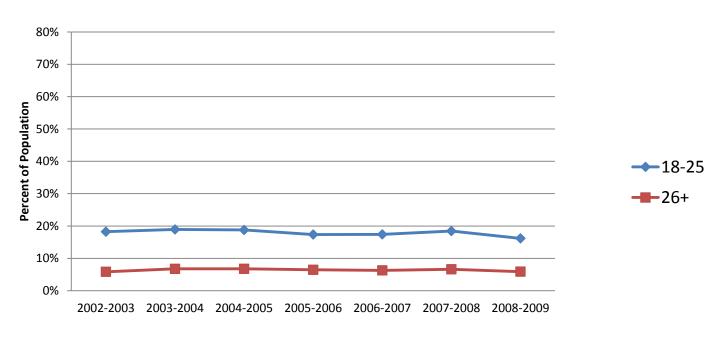


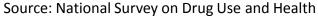




Alcohol Dependence or Abuse Trends: By Adult Age Group

Alcohol dependence or abuse during past year (Adults)

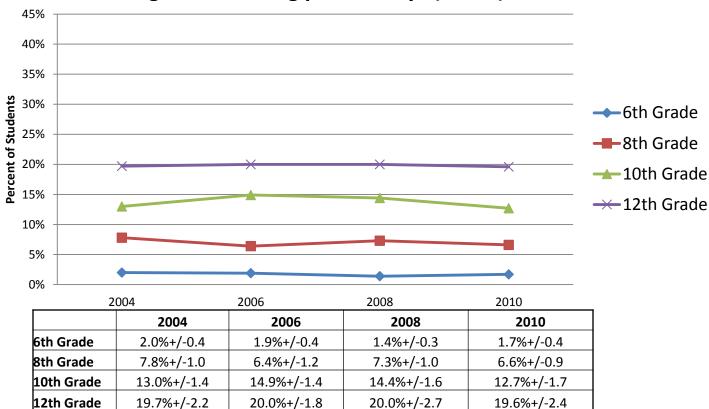






Tobacco Trends: By Youth Age Groups

Smoked cigarettes during past 30 days (Youth)



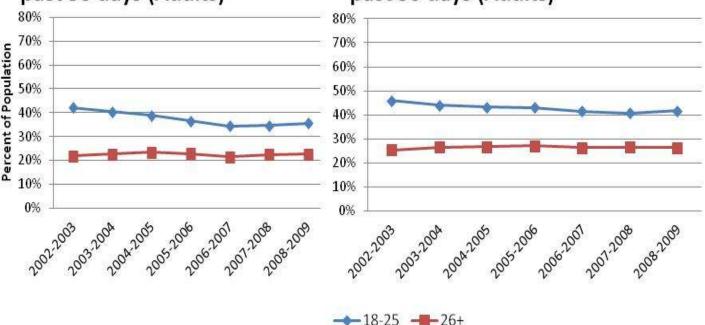
Source: Healthy Youth Survey



Tobacco Trends: By Adult Age Group

Smoked cigarettes during past 30 days (Adults)*

Used tobacco products during past 30 days (Adults)



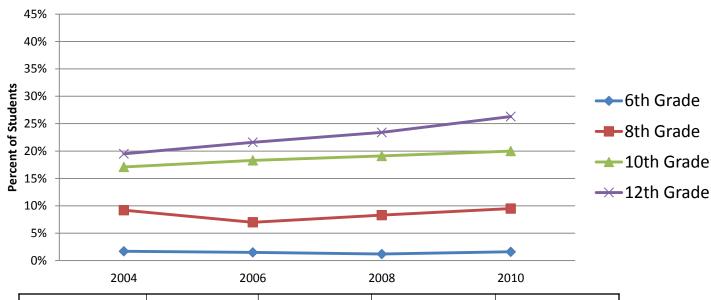
Source: National Survey on Drug Use and Health

Notes: * Difference in cigarette smoking between 2002/2003 and 2008/2009 statistically significant for the 18-25 age group.



Marijuana Trends: By Youth Age Groups

Used marijuana during past 30 days (Youth)



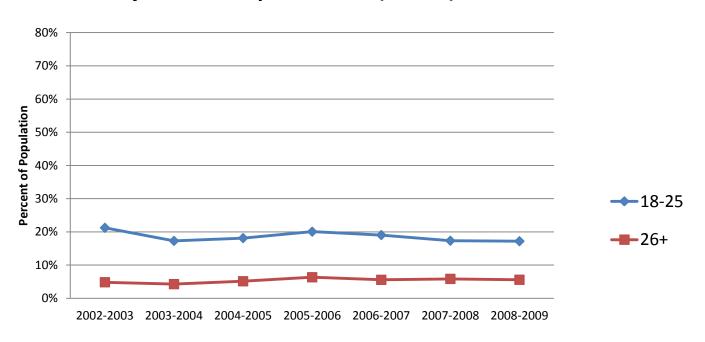
	2004	2006	2008	2010
6th Grade	1.7%+/-0.4	1.5%+/-0.4	1.2%+/-0.3	1.6%+/-0.4
8th Grade	9.2%+/-1.2	7.0%+/-1.2	8.3%+/-1.1	9.5%+/-1.1
10th Grade	17.1%+/-1.4	18.3%+/-1.4	19.1%+/-1.2	20.0%+/-1.8
12th Grade	19.5%+/-2.2	21.6%+/-2.0	23.4%+/-2.3	26.3%+/-2.0

Source: Healthy Youth Survey



Marijuana Trends: By Adult Age Group

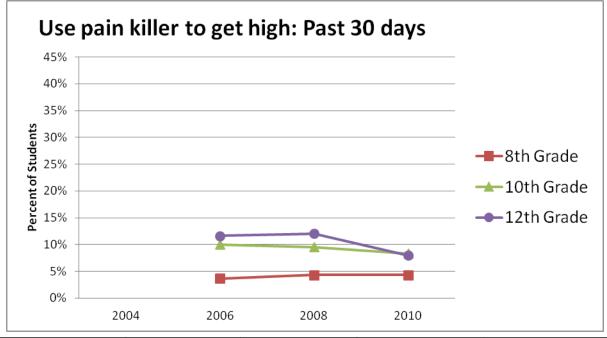
Used marijuana in the past month (Adults)





Source: National Survey on Drug Use and Health

Non-medical Use of Pain Killer Trends: By Youth Age Group



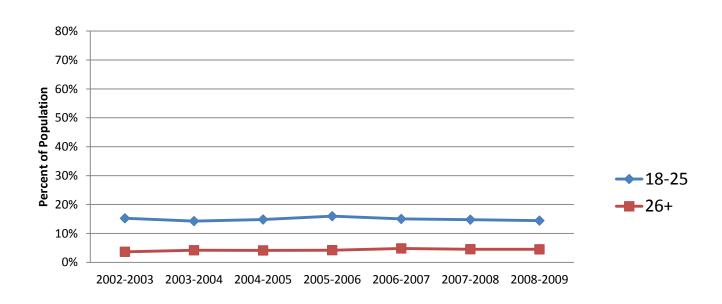
	2004	2006	2008	2010
8th Grade		3.6%+/-0.8	4.3%+/-0.9	4.3%+/-0.5
10th Grade		10.0%+/-1.2	9.5%+/-1.2	8.3%+/-1.3
12th Grade		11.6%+/-2.0	12%+/-1.6	7.9%+/-1.2

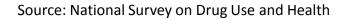
Source: Healthy Youth Survey



Non-Medical Use Of Pain Reliever Trends: By Adult Age Group

Nonmedical use of pain relievers in the past year (Adults)

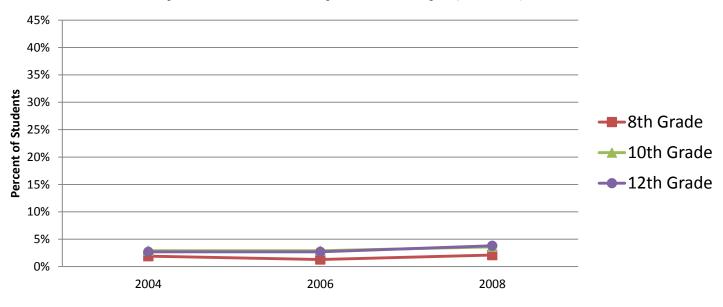






Methamphetamines Use Trends: By Youth Age Group

Used methamphetamines* in past 30 days (Youth)



	2004	2006	2008
8th Grade	1.9%+/-0.2	1.3%+/-0.2	2.1%+/-0.5
10th Grade	2.9%+/-0.6	2.9%+/-0.4	3.6%+/-0.7
12th Grade	2.7%+/-0.6	2.7%+/-0.6	3.8%+/-1.1

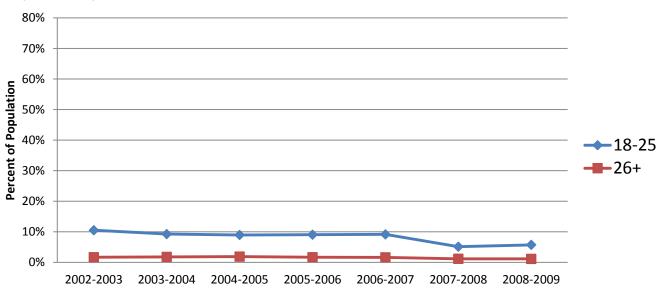
Source: Healthy Youth Survey



^{*}Meth, crystal meth, ice, crank. Not including other types of amphetamines.

Illicit Drug Dependence or Abuse Trends: By Adult Age Group

Any illicit drug dependence or abuse during the past year (Adults)*



Source: National Survey on Drug Use and Health

Notes: Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically.

* Difference between 2002/2003 and 2008/2009 statistically significant for the 18-25 age group.



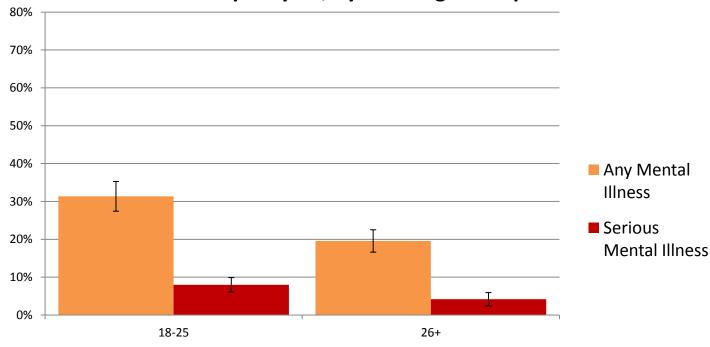


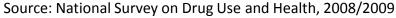
Mental Health Indicators

- Serious mental illness
- Serious psychological distress
- Major depressive episodes and symptoms of depression
- Suicidal ideation

Mental Illness Rates: by Adult Age Group

Mental mental illness in past year, by adult Age Group



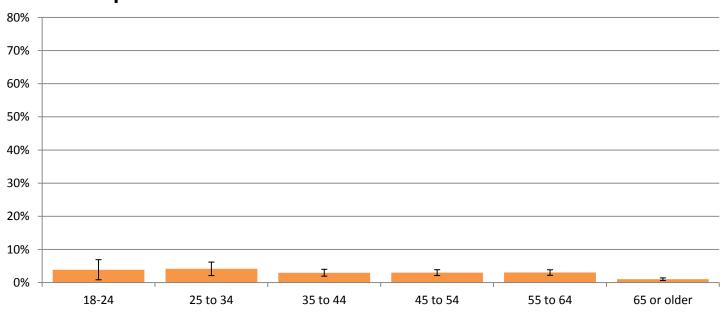


Notes: Any mental illness is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a substance use disorder, that met the criteria found in DSM-IV. Serious mental illness is defined as having a diagnosable mental, behavioral, or emotional disorder that resulted in functional impairment.



Serious Psychological Distress Rates: by Adult Age Group

Serious Psychological Distress in Past Month, by Adult Age Group

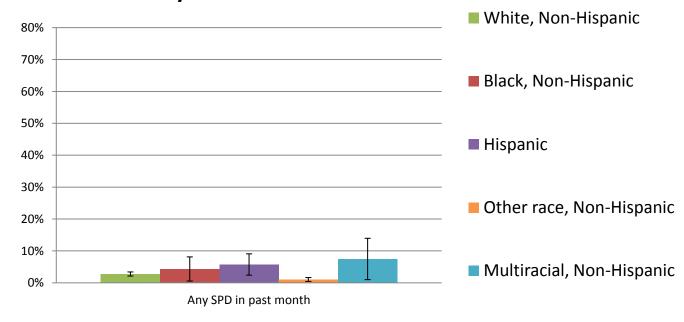


Source: Behavioral Risk Factors Surveillance System (BRFSS), 2010. SPD is defined as a score>= 13 on Kessler-6 distress scale.



Serious Psychological Distress Rates: by Race & Ethnicity

Any Serious Psychological Distress in Past 30 Days, by Race and Ethnicity

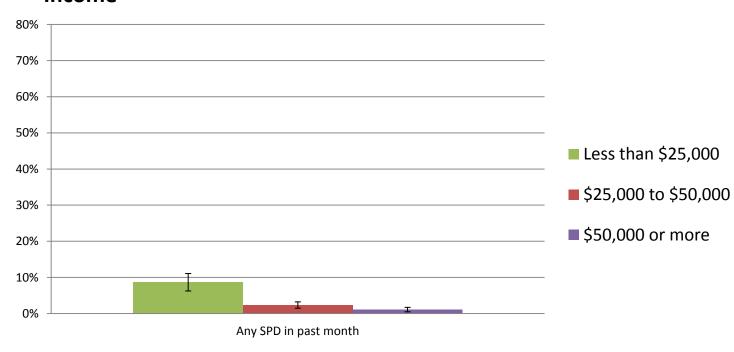


Source: Behavioral Risk Factors Surveillance System (BRFSS), 2010. SPD is defined as a score>= 13 on Kessler-6 distress scale.



Serious Psychological Distress Rates: by Income Group

Any Serious Psychological Distress in Past 30 Days, by Income

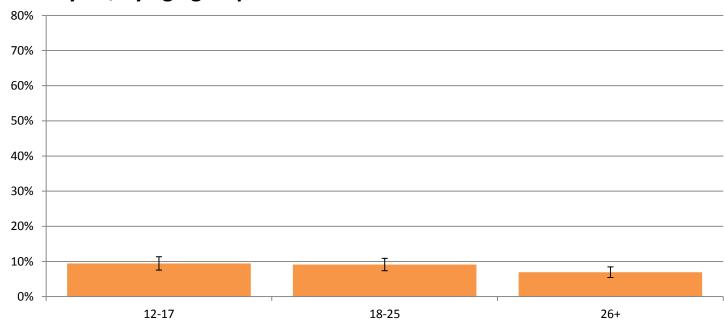




Source: Behavioral Risk Factors Surveillance System (BRFSS), 2010. SPD is defined as a score>= 13 on Kessler-6 distress scale.

Major Depressive Episode Rates: by Age Group

Had at least one major depressive episode in the past year, by age group



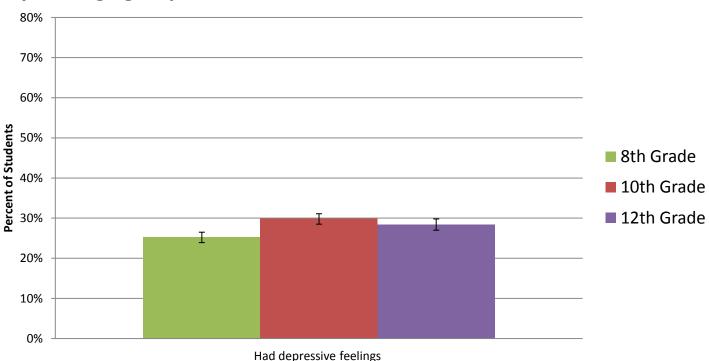
Source: National Survey on Drug Use and Health, 2008/2009

Note: Major depressive episode is defined as in DSM-IV, which specifies a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms.



Depressive Symptom Rates: by Youth Age Group

Had symptoms of depression during past 12 months, by youth age group



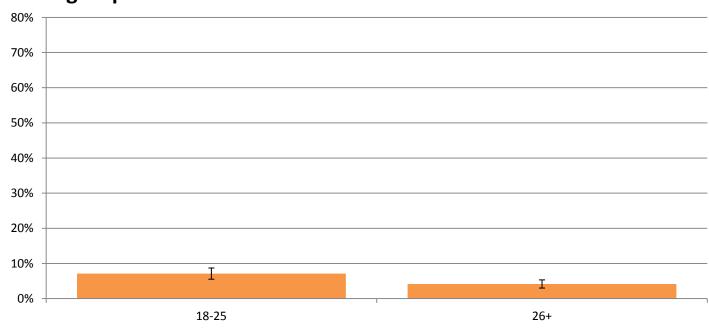


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Source: Washington Healthy Youth Survey, 2010

Suicidal Ideation Rates: by Adult Age Group

Had serious thoughts of suicide in past year, by adult age group

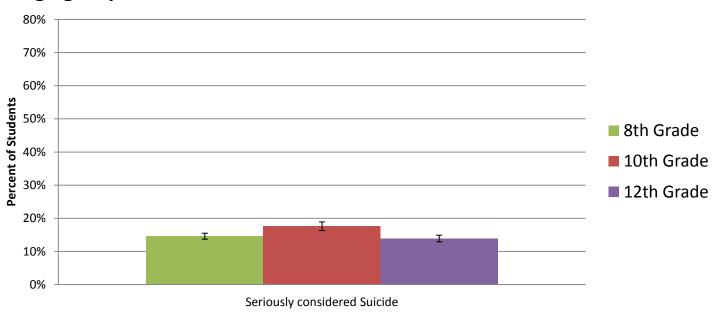




Source: National Survey on Drug Use and Health, 2008/2009

Suicidal Ideation Rates: by Youth Age Group

Seriously considered suicide in past 12 months, by youth age group

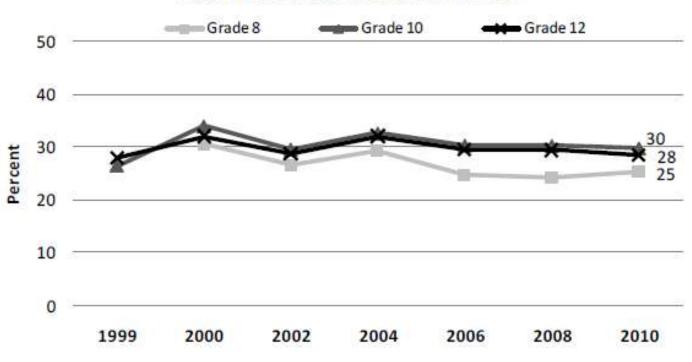




Source: Washington Healthy Youth Survey, 2010

Symptoms of Depression Trends: by Youth Age Group

Symptoms of Depression in Past Year, Grades 8, 10, and 12 from 1999-2010





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Source: YRBS, 1999, WASSAHB, 2000, HYS, 2002, 2004, 2006, 2008, 2010

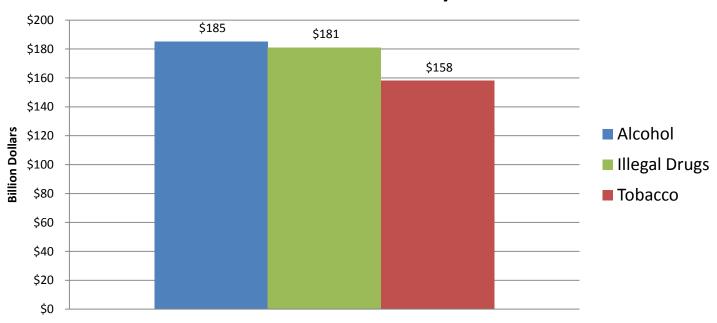


- Economic costs are varied:
 - Treatment
 - Medical consequences
 - Lost earnings
 - Accidents
 - Criminal justice



Economic Impacts: National Estimates

Estimated Annual Economic Cost to Society: United States

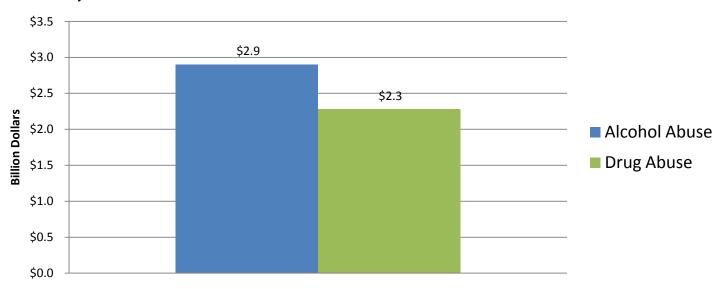


Source: Surgeon General's Report, 2004; ONDCP, 2004; Harwood, 2000, quoted in NIDA (2008). Addition Science: From Molecules to Managed Care. http://www.drugabuse.gov/publications/addiction-science Note: Economic costs include specialty treatment, medical consequences, lost earnings, and other costs such as accidents and criminal justice.



Economic Impacts: State Estimates

Economic Cost of Drug and Alcohol Abuse in Washington State, 2005



Source: Computed from Wickizer, T. The Economic Costs of Drug and Alcohol Abuse in Washington State, 2005. Olympia, WA: Washington State Department of Social and Health Services, Division of Alcohol and Substance Abuse, 2007.



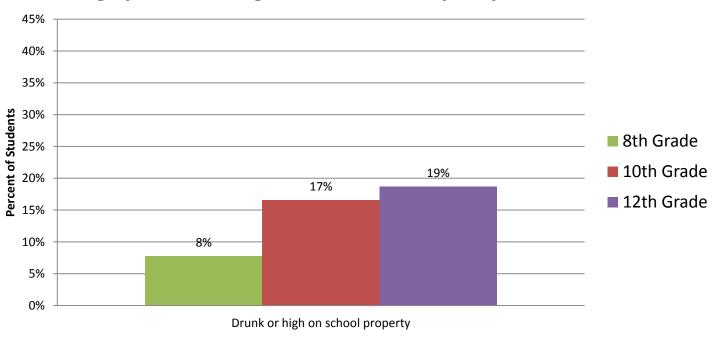


Social Impact

- Broad social impacts
 - School achievement
 - School-related consequences
 - Drinking and driving
 - Substance use during pregnancy
 - Adverse Childhood Experiences
 - Deaths
- Other impacts, without available data

Drunk or High in School

Showing up drunk or high to school in the past year



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Source: 2010 Healthy Youth Survey



Correlation between substance use and negative consequences (Odds Ratio)

	Alcohol	Marijuana	Pain Killer*	Tobacco
Depressive Feelings	2.3	2.0	3.1	2.3
Drunk or high at school	12.6	24.7	22.3	14.0
Riding with driver who had alcohol	6.0	4.8	7.3	4.9
Skipping school	3.5	4.1	5.0	4.1

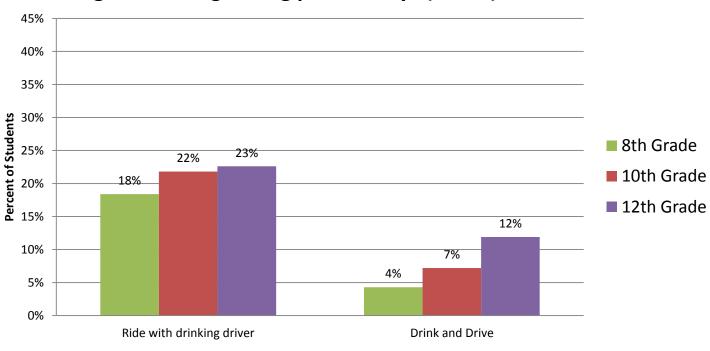
Source: 2010 HYS.

^{*} Used pain killers to get high



Drinking and Driving: Youth

Rode in a car driven by someone who have been drinking Drinking and driving during past 30 days (Youth)

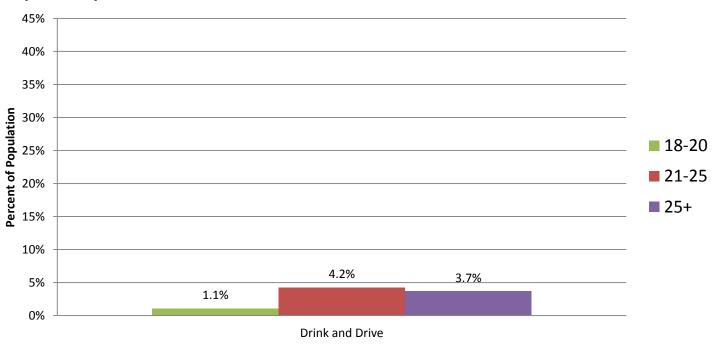




Source: 2010 Healthy Youth Survey

Drinking and Driving: Adults

Driving after having too much to drink during past 30 days (Adults)

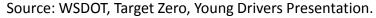


Source: 2010 BRFSS



Traffic Fatalities

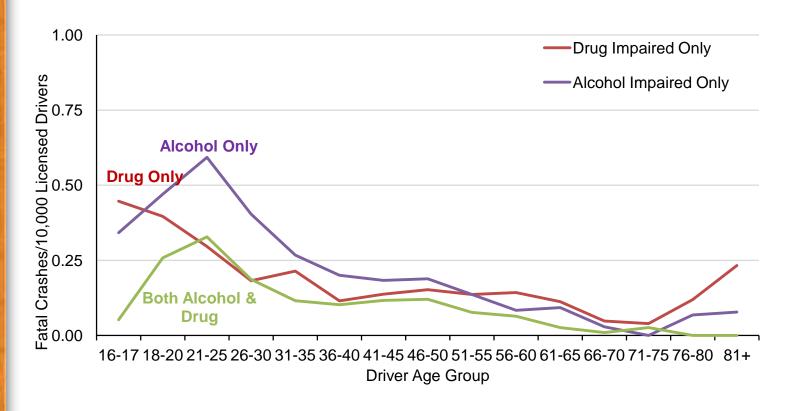
	2003-2005		2006-2008		2006-2008 vs. 2003-2005	
		% of Total		% of Total	Percent Change in	
	Deaths	Deaths	Deaths	Deaths	Number of Deaths	
	1,816	100.0%	1,725	100.0%	-5.0%	
Priority One ¹						
Alcohol/Drug Impaired Driver-Involved	794	43.7%	828	48.0%	4.3%	
Drinking Driver-Involved	706	38.9%	712	41.3%	0.8%	
Alcohol Impaired Driver-Involved	557	30.7%	544	31.5%	-2.3%	
Drug Impaired Driver-Involved	412	22.7%	474	27.5%	15.0%	
Run off the Road*	771	42.5%	722	41.9%	-6.4%	
Speeding Involved	707	38.9%	693	40.2%	-2.0%	



Note: 1. Target Zero Priorities



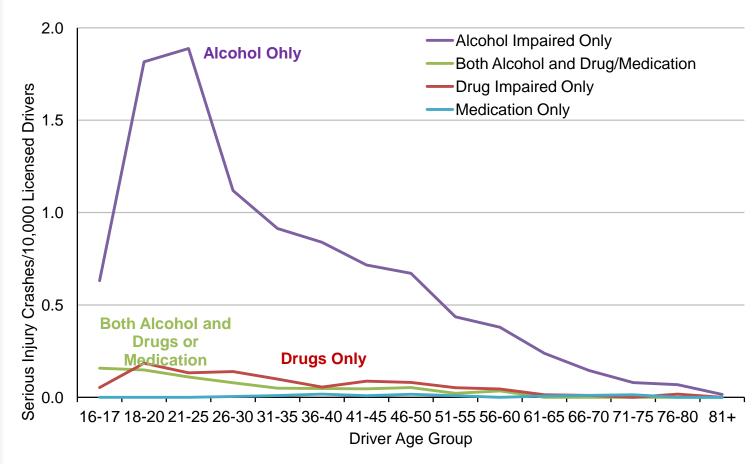
Fatal Crashes



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Data source: Fatality Analysis Reporting System (FARS) (1/12/2011)

Serious Injury Crashes

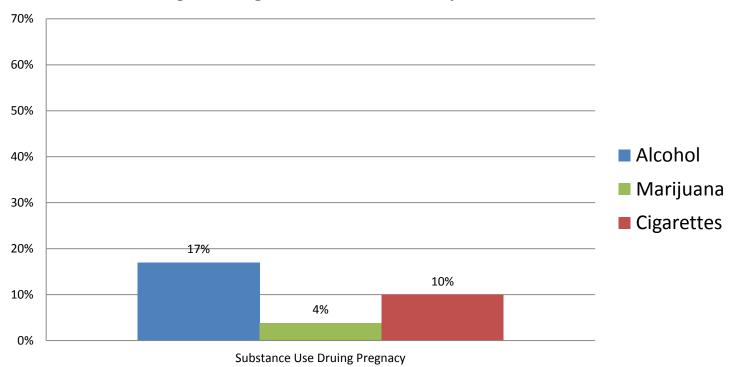




Data source: WSDOT (12/15/2010)

Substance Use During Pregnancy

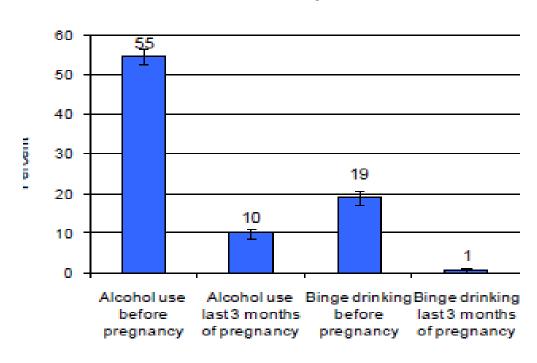
Percentage of Pregnant Women who Reported Substance Use



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Alcohol Use During Pregnancy

Alcohol Use Before and During Pregnancy WA PRAMS, 2006-2008

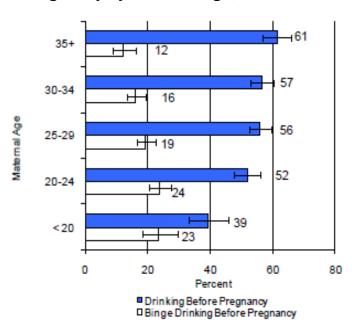


Source: Pregnancy Risk Assessment Monitoring System (PRAMS). Alcohol Use Before and During Pregnancy. http://www.doh.wa.gov/cfh/assessment/docs/datareport/alcusepreg.pdf

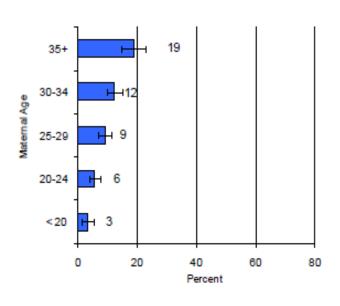


Alcohol Use During Pregnancy: By Age Group

Drinking and Binge Drinking Before Pregnancy by Maternal Age, 2006-2008



Drinking In Third Trimester by Maternal Age, 2006-2008

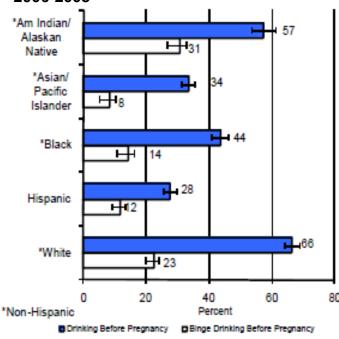


Source: Pregnancy Risk Assessment Monitoring System (PRAMS). Alcohol Use Before and During Pregnancy. http://www.doh.wa.gov/cfh/assessment/docs/datareport/alcusepreg.pdf

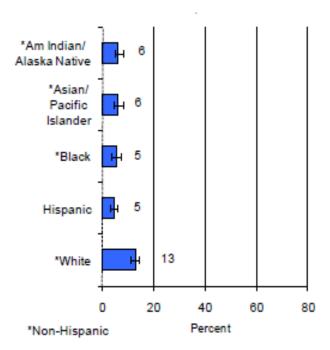


Alcohol Use During Pregnancy: By Race & Ethnicity

Drinking and Binge Drinking Before Pregnancy by Maternal Race/Ethnicity, 2006-2008



Drinking In Third Trimester by Maternal Race/Ethnicity, 2006-2008

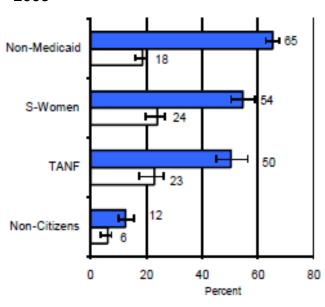


Source: Pregnancy Risk Assessment Monitoring System (PRAMS). Alcohol Use Before and During Pregnancy. http://www.doh.wa.gov/cfh/assessment/docs/datareport/alcusepreg.pdf



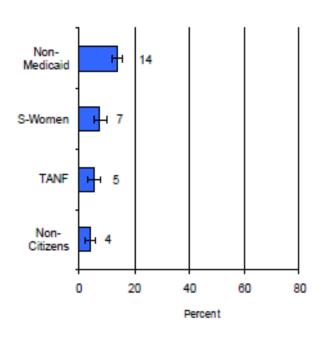
Alcohol Use During Pregnancy: By Medicaid Status

Drinking and Binge Drinking Before Pregnancy by Medicaid Program, 2006-2008



■Drinking Before Pregnancy ■Binge Drinking Before Pregnancy

Drinking In Third Trimester by Medicaid Program, 2006-2008



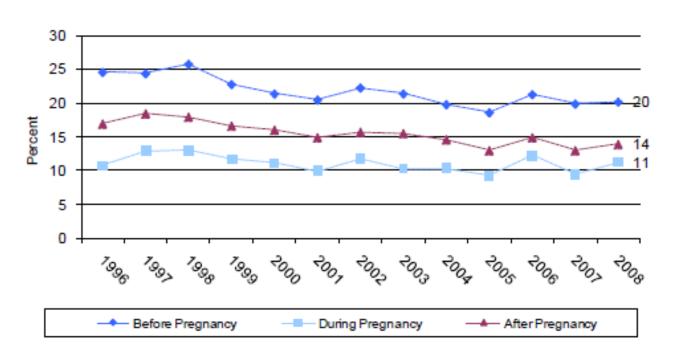
Source: Pregnancy Risk Assessment Monitoring System (PRAMS). Alcohol Use Before and During Pregnancy. http://www.doh.wa.gov/cfh/assessment/docs/datareport/alcusepreg.pdf

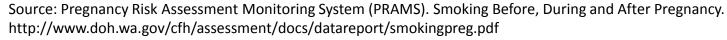
Notes: S-women are citizens who are eligible to receive Medicaid because they are pregnant and have income at or below 185% federal poverty line.



Smoking Cigarettes During Pregnancy

Smoking Before, During and After Pregnancy WA PRAMS, 1996-2008

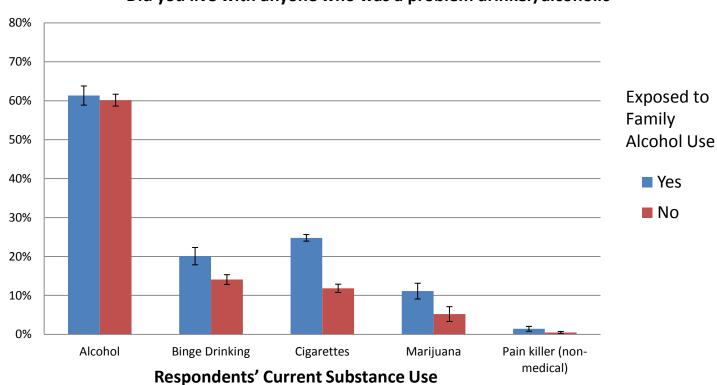






Family Alcohol Use:

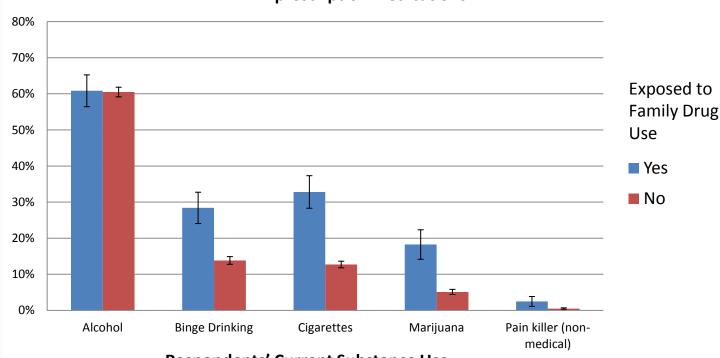
Did you live with anyone who was a problem drinker/alcoholic





Family Drug Use

Did you live with anyone who used illegal street drugs or who abused prescription medications

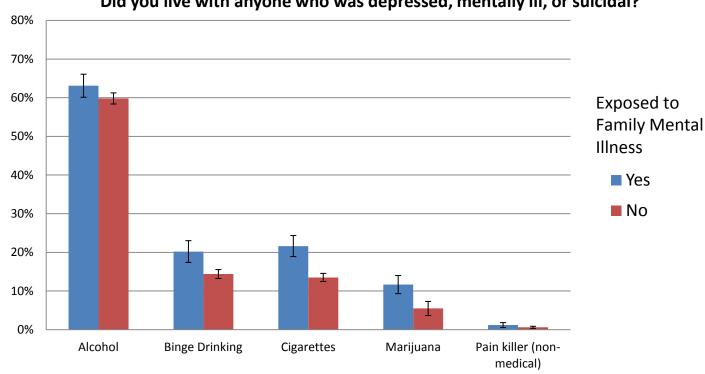


Respondents' Current Substance Use



Family Mental Illness:

Did you live with anyone who was depressed, mentally ill, or suicidal?

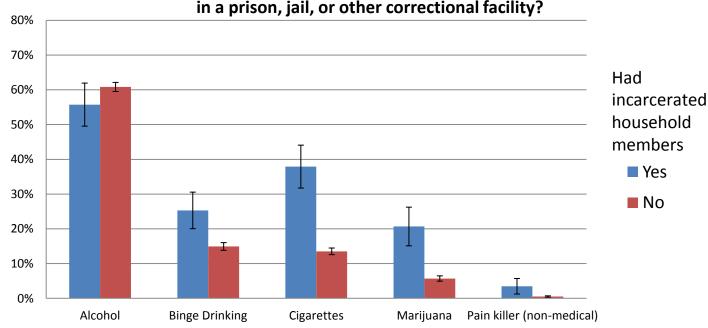


Respondents' Current Substance Use



Incarcerated Household Member:

Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?

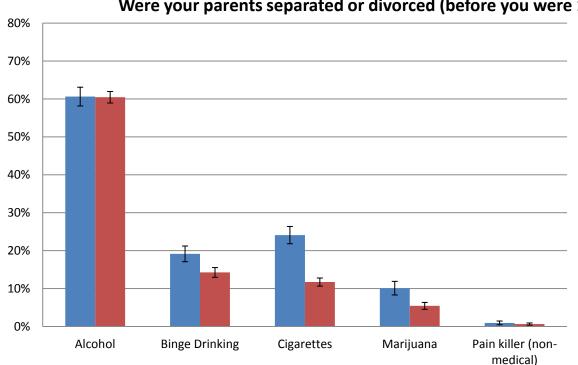


Respondents' Current Substance Use



Parental Separation or Divorce:

Were your parents separated or divorced (before you were 18)?



Parents divorced or separated Yes

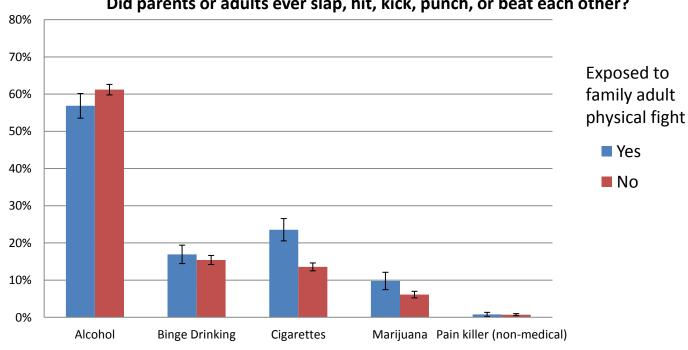
No

Respondents' Current Substance Use



Family Adult Physical Fight:

Did parents or adults ever slap, hit, kick, punch, or beat each other?

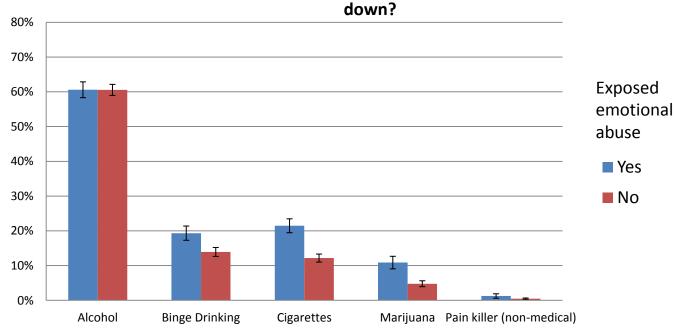


Respondents' Current Substance Use



Emotional Abuse:

Did parents or adults in home ever swear at you, insult you, or put you

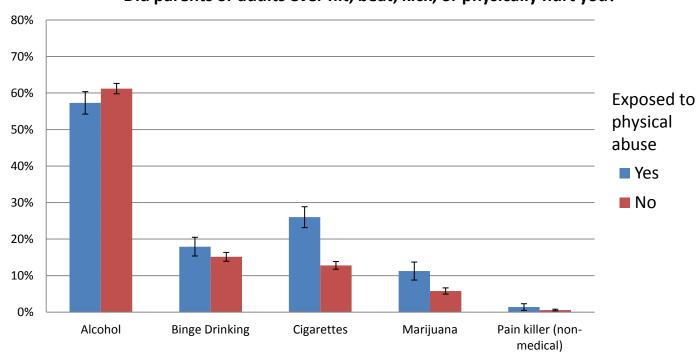


Respondents' Current Substance Use



Physical Abuse:

Did parents or adults ever hit, beat, kick, or physically hurt you?

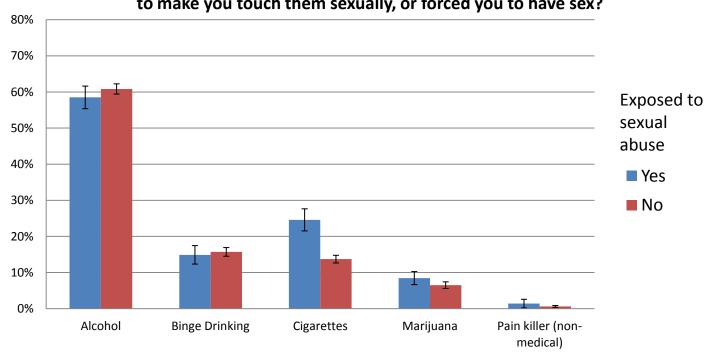






Sexual Abuse:

Did anyone at least 5 years older than you ever touched you sexually, tried to make you touch them sexually, or forced you to have sex?



Respondents' Current Substance Use





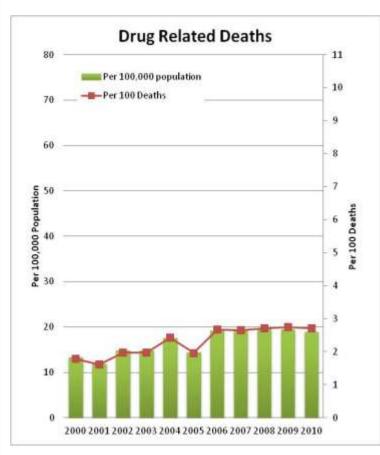
Correlations between adverse childhood experiences and substance use (odds ratios)

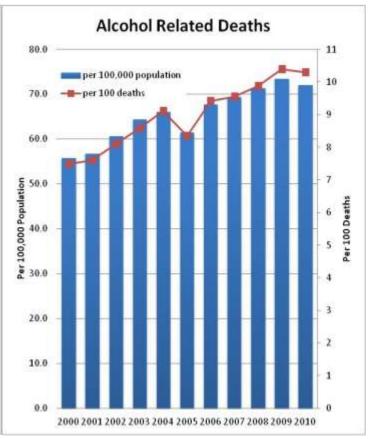
	Drinking Alcohol	Binge Drinking	Smoking Cigarattes	Using Marijuana	Using Pain Killers to Get High
Family Drinking	1.05	1.54	2.46	2.28	2.92
Family Drug Use	1.01	2.47	3.36	4.15	5.18
Family Mental Illness	1.15	1.51	1.77	2.28	1.96
Household Memebers Incarcerated	0.81	1.93	3.90	4.31	6.92
Parents Divorced or Separated	1.01	1.43	2.39	1.95	1.49
Family Adult Physical Fight	0.84	1.12	1.96	1.66	1.08
Physical Abuse	0.85	1.22	2.39	2.06	2.40
Emotional Abuse	1.00	1.48	1.97	2.43	2.66
Sexual Abuse	0.91	0.94	2.05	1.33	2.26

Source: Behavioral Risk Factors Surveillance System (BRFSS), 2010. Shaded odds ratios are statistically significant at the .05 level.



Alcohol or Drug Related Deaths



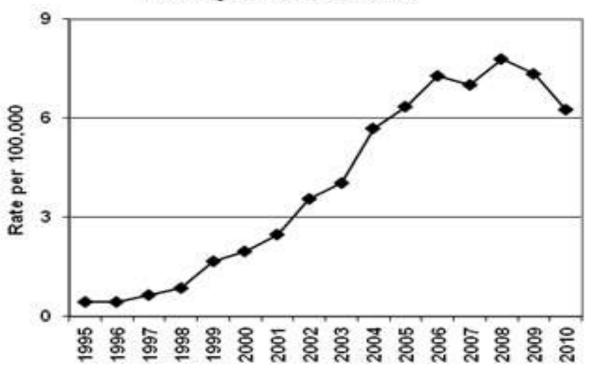


Source: Department of Health, Center for Health Statistics, Death Certificate Data File



Prescription Opioid Involved Deaths

Prescription Opioid Involved Overdose Deaths Washington State, 1995-2010

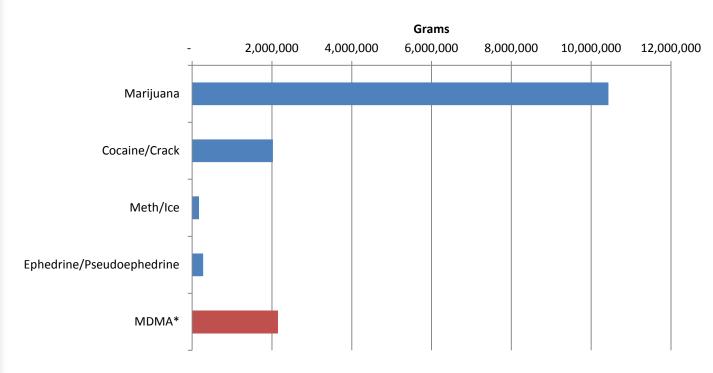


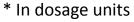


Source: Comprehensive Hospital Abstract Reporting System (CHARS)

Drug Trafficking

Drug Seizures by Northwest High Intensity Drug Trafficking Area-Funded Enforcement Initiatives (2008)





Source: Northwest HIDTA Threat Assessment and Strategy for Program year 2010





- Considering
 - Rates
 - Trends
 - Economic Impacts
 - Social Impacts





Ranking	Alcohol	Tobacco	Marijuana	Meth	Prescription Drug
Prevalence Rates (youth/adult) *	1 st -youth 1 st -adults	3 rd -youth 2 nd -adults	2 nd -youth 3 rd -adults	5 th -youth NA- adults	4 th -youth 4 th -adults
Trends (youth/adult) **	no trend change	no trend change	youth - increasing adult - no change	no trend change	no trend change
Economic Impacts	1 st	3 rd	Illicit drugs: 2 nd		
Social Impact	 Deaths: alcohol greater impact than illicit drugs Drinking and driving: Age dependent Traffic injuries and fatalities: Age dependent School related consequences: Mixed 				
OVERALL	1st	3rd	2nd	5th	4th

Notes: *Substances are ranked from the highest prevalence to the lowest. The first number indicates the ranking for youth and the second number indicates the ranking for adults (+18). **Substances are ranked based on trends. The first number indicates the ranking for youth and the second number indicates the ranking for adults (18+). With the exception of youth marijuana use, there has not been any discernible increasing or decreasing trends in these five substances. Youth marijuana use, therefore, was given the highest ranking.





- Are there other indicators?
- Are there other ways to consider current data?
- How should we frame a state prevention focus?





Background Information

- Source information for surveys and data
 - BRFSS
 - NSDUH
 - HYS
 - PRAMS
 - FARS



Behavioral Risk Factors Surveillance System (BRFSS)

- National and statewide annual telephone survey
- Collects information on health behaviors and preventive practices
- Respondents: adults 18 years and older
- Sample size (2010): approximately 20,000 in Washington State



National Survey on Drug Use and Health (NSDUH)

- Nationwide annual survey conducted through computerized interviews
- Collects data on the use of tobacco, alcohol, illicit drugs (including nonmedical use of prescription drugs) and mental health Indicators
- Respondents: individuals 12 years and older
- Sample size: approximately 70,000 nationally



Health Youth Survey (HYS)

- Statewide school survey conducted biannually
- Collects data on health risk behaviors that contribute to morbidity, mortality, and social problems among youth
- Respondents: students in the 6th, 8th, 10th and 12th grade
- Sample size (2010): 211,331 students from 1,145 schools



Pregnancy Risk Assessment Monitoring System (PRAMS)

- National and statewide mail and telephone survey
- Collects data on new mothers' behaviors and experiences before, during, and shortly after pregnancy
- Respondents: new mothers 2 to 6 months after delivering a baby
- Sample size: approximately 1,800 surveys mailed each year in Washington with about a 76% response rate



Fatality Analysis Reporting System (FARS)

- Nationwide census with data regarding fatal injuries suffered in motor vehicle traffic crashes
- Maintained by National Highway Traffic Safety Administration (NHTSA)
- Data available yearly from 1975
- Collects data on crashes involving a motor vehicle traveling on a traffic way customarily open to the public and result in the death of a person within 30 days of the crash



Measuring Serious Psychological Distress (BRFSS)

- Measured by Kessler-6 distress scale
- Serious psychological distress –
 defined as a score of 13 or more on K-6



Estimating Rates of Mental Illness (NSDUH)

- Psychological distress measured by Kesseler-6 distress scale
- Functional impairment measured by the World Health Organization Disability Assessment Schedule (WHODAS) and the Sheehan Disability Scale (SDS)
- Conducted clinical interviews with a subsample to determine mental illnesses
- Rates of mental illness estimated using statistical models based on K-6, WHODAS/SDS, and parameters determined by the clinical interviews



Estimating Rates of Depression (NSDUH)

- Major depressive episode: defined as in DSM-IV a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms
- Adult questions adapted from the National Comorbidity Survey Replication (NCS-R)
- Youth (12 to 17) questions adapted from the National Comorbidity Survey Adolescent (NCS-A)