

SURVEY

Outcomes: SAMHSA's Four Core Measures

Making Sobriety Attractive (MSA)

a SAMHSA Drug Free Communities (DFC) Program

To Reduce/Prevent Underage Use of Alcohol and Other Drugs (AOD)

Supported by the Kent County Prevention Coalition

Implemented by ALERT Labs at

One Alternative and Two Traditional High Schools

- ALT HS with One Year of MSA Prevention,
- #2 HS with Two Years of MSA Prevention,
- #1 HS with Three Years of MSA Prevention
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Comparing Pre-Test Baselines (2006/07) to
Results of Most Recent Post-Tests (2009)

December 11, 2009

CORE 1: Average age of onset

(Increase the age at which youth first begin using AOD)

Summary: Increases in age of onset range from

Alcohol = 1.4% to -4%

Marijuana = .4% to -1.2% to -1.4%

Tobacco to -1.4% to 2.3%

Highlighted numbers are statistically significant.

Comment: Little change in the age at which students begin to use Alcohol and Other Drugs (AOD) can be expected given that the MSA Program targets teens. Thus any increase in age is a positive outcome. Research shows that change is unlikely to appear until after at least two years of any prevention program targeting high school students, however the Making Sobriety Attractive (MSA) has had surprising successes.

Statistical analysis provided by Donald (Tex) Bryant of Bryant Healthcare Services.

DETAILS:

ALT HS: One Year of MSA Prevention

<u>Substance</u>	<u>Pre-test Age- 2006</u>	<u>Post-test Age— 2008</u>	<u>Percent Change</u>
Alcohol	14.2	14.4	1.4%
Marijuana	14.0	13.8	-1.4%
Tobacco	13.8	13.6	-1.4%

Positive figures are desirable.

#2 HS: Two Years of MSA Prevention

<u>Substance</u>	<u>Pre-test Age- 2007</u>	<u>Post-test Age— 2009</u>	<u>Percent Change</u>
Alcohol	14.2	13.6	-4.0%
Marijuana	14.4	14.2	-1.2%
Tobacco	14.1	13.8	-2.3%

There is a statistically significant change in the age of onset of alcohol, marijuana and tobacco (figures in yellow highlight are significant).

#1 HS: Three Years of MSA Prevention

<u>Substance</u>	<u>Pre-test Age- 2006</u>	<u>Post-test Age— 2008</u>	<u>Percent Change</u>
Alcohol	14.4	14.3	-0.5%
Marijuana	14.5	14.6	0.4%
Tobacco	14.0	14.6	3.6%

**Core 2: Reduce Past 30 day Use (# of occasions and # of drinks/uses);
Objective is Change of 3% or More**

Summary: Reductions in Number of Occasions of AOD Use

Alcohol = -7% to -23%

Marijuana = -7% to -34%

Tobacco = -5% to -36.5%

Other Drugs = -37% to -56%

Comment: Reduction in use of alcohol and other drugs is one of the two goals of DFC programs. Occasions of alcohol use have been reduced by the MSA Program by about 20%, and number of drinks per occasions have been reduced by about 15%. This has led to similar reductions in use of the drugs that tend accompany (e.g., tobacco use) or follow alcohol use, e.g., marijuana.

DETAILS:

ALT HS Reduce Number of Occasions of Use: One Year of MSA Prevention

<u>Substance</u>	<u>2006 –Average Number of Use Occasions</u>	<u>2008—Average Number of Use Occasions</u>	<u>Percent Change</u>
Alcohol	2.8	2.3	-17.9%
Marijuana	2.8	2.6	-7.1%
Tobacco	4.3	3.1	-27.9%
Other Drugs	0.9	0.4	55.6%

Note: In this table negative figures are desired.

There is a statistically significant change for tobacco and other drugs, using a 5% level of significance. Alcohol shows a strong change, although not statistically significant because of the small sample sizes.

#2 HS Reduce Number of Occasions of Use: Two Years of MSA Prevention

<u>Substance</u>	<u>2007 –Average Number of Use Occasions</u>	<u>2009—Average Number of Use Occasions</u>	<u>Percent Change</u>
Alcohol	1.1	1.0	7.3%
Marijuana	0.6	0.7	-33.9%
Tobacco	1.1	1.0	5.1%

Note. There is a statistically significant change in marijuana use. This is problematic, as disapproval of marijuana use is decreasing, which can lead to the number of occasions of use increasing.

#1 HS Reduce Number of Occasions of Use: Three Years of MSA Prevention

<u>Substance</u>	<u>2006 –Average Number of Use Occasions</u>	<u>2009—Average Number of Use Occasions</u>	<u>Percent Change</u>
Alcohol	1.1	0.8	-23.0%

Marijuana	0.7	0.6	-17.9%
Tobacco	0.8	0.5	-36.5%
Other Drugs	0.1	0.1	-37.0%*

Note: In this table a positive trend is desired. There is a statistically significant change in alcohol use and tobacco use. Marijuana and other illegal drugs have positive trends.

*The difference is calculated based on more detailed analysis.

In 2007 students reported drinking an average of 1.95 drinks per occasion of drinking; in 2009, 1.67 drinks per occasion. **This is a drop of 14.6% in alcohol use and is statistically significant.**

Core 2 Report cont'd

<u>Summary: Reductions in Number of Drinks/Uses per occasion =</u>	<u>Increase in Abstinence</u>	<u>Decrease Heavy Use</u>
Alcohol = <u>-7% to 10%</u>		<u>-5% to -45%</u>
Marijuana = <u>7% to 29%</u>		<u>-4% to 41%</u>
Tobacco = <u>2% to 72%</u>		<u>-6% to -40%</u>
Other Drugs = <u>-2% to 2%</u>		<u>-29% to 40%*</u>

These are very small numbers because 88% to 97% do NOT use Other Drugs.

DETAILS:

**Changes in Number of Drinks/Uses Per Occasion in Past 30 Days
Between Baseline 2006 and 2008:**

ALT HS Number of Drinks/Uses Per Occasion: One Year of MSA Prevention

	<u>Year</u>	<u>None</u>	<u>Percent Increase Abstinence</u>	<u>1 to 5 times</u>	<u>6 or more times</u>	<u>Percent Decrease 6 or more times</u>
Alcohol	2006	29.6%		44.5%	25.9%	
	2008	31%	5%	54.7%	14.3%	-45%
Marijuana	2006	37.0%		26.0%	37.0%	
	2008	47.6%	29%	16.7%	35.7%	-4%
Tobacco	2006	22.2%		14.8%	63%	
	2008	38.1%	72%	16.7%	45.2%	-28%
Other Drugs	2006	66.7%		33.3%	0%	
	2008	88.1%	-2%	11.9%	0%	

Note exceptional increases in ABSTINENCE and decreases in Heavy Use.

**Changes in Number of Drinks/Uses Per Occasion in Past 30 Days
Between Baseline 2007 and 2009**

#2 HS: Two Years of MSA Prevention

	<u>Year</u>	<u>None</u>	<u>%Incr ease</u> <u>Abstin</u> <u>ence</u>	<u>1 time</u>	<u>2 times</u>	<u>5 times</u>	<u>6 or more times</u>	<u>Percent Decrease 6 or more times</u>
Alcohol	2007	64.2%		10.7%	6.2%	1.7%	7.7%	
	2009	68.7%	-7%	7.2%	6.3%	2.2%	8.1%	-5%
Marijuana	2007	85.7%		3.7%	1.4%	1.1%	5.9%	
	2009	79.8%	7%	5.1%	3.2%	.8%	8.3%	41%
Tobacco	2007	76.9%		3.2%	2.0%	1.1%	14.1%	
	2009	75.2%	2%	4.9%	2.7%	.7%	13.3%	-6%
Other Drugs	2007	95.1%		2.1%	1.2%	0.1%	1.0%	
	2009	93.3%	2%	2.4%	1.2%	.2%	1.4%	40%

Note that Heavy drinkers and marijuana user tend over time to use more heavily. There is a statistical difference in the percent abstaining in the use of alcohol in 2007 versus 2009. Also in the percent abstaining in the use of marijuana in 2007 versus 2009.

**Changes in Number of Drinks/Uses Per Occasion in Past 30 Days
Between Baseline 2006 to 2009**

#1 HS: Three Years of MSA Prevention

	<u>Year</u>	<u>None</u>	<u>Increase</u> <u>Abstinence</u>	<u>1 time</u>	<u>2 times</u>	<u>5 times</u>	<u>6 or more times</u>	
Alcohol	2006	65.0%		9.4%	7.9%	3.0%	7.7%	
	2009	71.6%	10%	7.8%	5.9%	1.0%	5.4%	-30%
Marijuana	2006	77.9%		7.0%	4.2%	1.5%	5.0%	
	2009	86.7%	11%	2.0%	1.0%	0.5%	6.4%	28%
Tobacco	2006	80.1%		4.2%	2.5%	1.2%	10.7%	
	2009	86.8%	8%	3.4%	1.5%	1.0%	6.4%	-40%
Other Drugs	2006	96.0%		1.7%	0.7%	0%	0.7%	
	2009	97.5%	2%	1.0%	1.0%	0.0%	0.5%	-29%

Note increases in ABSTENTION.

CORE 3: Perception of Parental Disapproval

(How wrong do your parents feel it would be for you to use _____)

Objective is Change of 3% or More Increase

Summary: Increase in

<u>Perception of Parental Disapproval</u>	<u>Peer Disapproval*</u>
Alcohol = -1.4% to 34.3%	12.2 to 116.9%
Marijuana = -14% to 19.3%	19.3% to -1.4%
Tobacco = 8.1% to 117.4%	6.8% to 61.5%

*SAMHSA does not require measurement of Peer Disapproval, but we believe that it may have nearly as much impact as Parental Disapproval.

Comments

- Growing recognition of Disapproval of AOD Use by Peers indicates that the Social Norms Effects resulting from correction of misperceptions, as reported Posters, fuels the growth in ABSTINENCE (see Core#2). Also, MSA research establishes the Posters as “protective factors.”
- Note that in 2008, results revealed that 80% of students who believed that their parents Disapproved of underage drinking, did NOT drink.
- In 2009, results revealed that 90% of students who believed that their parents Disapproved of underage drinking, did NOT drink.
- Actual Parent Disapproval is so strong, ranging from 97% to 100%, that it is unlikely that students will perceive much change over a year or two. The only area in which they reported much change was in tobacco.

DETAILS:

ALT HS Perception of Parental Disapproval: One Year of MSA Prevention

<u>Substance</u>	<u>2006 Percent Yes</u>	<u>2008 Percent Yes</u>	<u>% Change</u>
Alcohol	46.1	61.9	34.3%
Marijuana	53.9	64.3	19.3%
Tobacco	23.0	50	117.4%

Note: In this table a positive trend is desired.

There is a statistically significant change in the percent of tobacco. Other results are excellent as well, though low number of participants prevents statistical significance.

#2 HS Perception of Parental Disapproval: Two Years of MSA Prevention

<u>Substance</u>	<u>2007 Percent Wrong or Very Wrong</u>	<u>2009 Percent Wrong or Very Wrong</u>	<u>% Change</u>
Alcohol	84.0%	82.8%	-1.4%
Marijuana	92.9%	91.6%	-1.4%
Tobacco	81.3%	87.9%	8.1%

Note: In this table a positive trend is desired.

There is a **strong statistical change** in the students' perception of parental disapproval of the use of tobacco from 2007 to 2009. The p-value of the statistical test is approximately 0.0%, which gives strong credence to the finding.

#1 HS Perception of Parental Disapproval: Three Years of MSA Prevention

<u>Substance</u>	<u>2006 Percent Yes</u>	<u>2008 Percent Yes</u>	<u>% Change</u>
Alcohol	84.0%	80.9%	-3.7%
Marijuana	92.9%	92.8%	-0.1%
Tobacco	81.3%	87.8%	8.0%

Note: a positive trend is desired.

ALT HS: One Year of MSA Prevention

Perception of Peer (Friends') Disapproval of AOD Use			
	2006	2008	Percent Change
Alcohol	7.7%	16.7%	116.9%
Marijuana	15.4%	14.2%	-7.8%
Tobacco	19.2%	31.0%	61.5%

#2 HS: Two Years of MSA Prevention

Peer (Friends') Disapproval of Your Use of Alcohol and Other Drugs			
	2007	2009	Percent Change
Alcohol	49.8%	55.9%	12.2%
Marijuana	69.7%	65.2%	-6.5%
Tobacco	60.4%	64.5%	6.8%

Note: Positive change in percents are good.

All changes are statistically significant. *Problematic change:* disapproval of marijuana use is decreasing could lead to increased use. However, results do not support that concern.

#1 HS: Three Years of MSA Prevention

Peer (Friends’) Disapproval of Your Use of Alcohol and Other Drugs			
	2006	2008	Percent Change
Alcohol	38.1%	45.2%	18.6%
Marijuana	52.0%	58.9%	13.3%
Tobacco	54.3%	67.2%	23.8%

Note: Positive change in percents are good.

There is a statistically significant change in perception of friends’ disapproval for alcohol and tobacco.

CORE 4: Perception of Harm

(How harmful to the health of someone your age is the regular use of ___ ?”
Objective is Change of 3% or More

Summary: Reductions in Perception of Harm re. AOD Use

Alcohol = -12.9% to 7.8%

Marijuana = -3.3 to -37.2%

Tobacco = -5.3% to -1.9%

Comments:

- MSA research does NOT support the relationship assumed between Perception of Harm and Use of the Drug: Use of AOD continues to decline as desired, in spite of generalized weakening in students’ perception of likely harm.
- Probably this is because the effects of parental and peer disapproval are much stronger than the effects of perception of harm. This is reasonable give the teenagers well-known attraction to “risk,” and disdain toward threats of negative consequences.

DETAILS:

ALT HS: One Year of MSA Prevention

<u>Substance</u>	<u>2006 “Is Harmful”</u>	<u>2008 “Is Harmful”</u>	<u>% Change</u>
Alcohol	80.8	88.1	7.8%
Marijuana	53.8	73.8	37.2%
Tobacco	88.5	83.8	-5.3%

Note: In this table a positive trend is desired.

There is a statistically significant change in the perception of harm from marijuana.

#2HS: Two Years of MSA Prevention

<u>Substance</u>	<u>2007 “Is Harmful”</u>	<u>2009 “Is Harmful”</u>	<u>% Change</u>
Alcohol	84.6%	73.7%	-12.9%
Marijuana	79.5%	77.0%	-3.1%
Tobacco	92.9%	91.1%	-1.9%

Note: In this table a positive trend is desired.

There is a statistically significant change in the perception of whether there is risk in the consumption of alcohol nearly every day. The p-value of the test is 0.00%, which is very strong in indicating a change. The percent change from 2007 to 2009 is larger than from 2007 to 2008. That is, the percentage perceiving risk has been shrinking. Posters for 2009-2010 will emphasize factors tending to increase risk perception, though the tie between perception and behavior is weak at best.

#1 HS

<u>Substance</u>	<u>2006 “Is Harmful”</u>	<u>2008 “Is Harmful”</u>	<u>% Change</u>
Alcohol	87.3%	85.9%	-1.6%
Marijuana	85.6%	82.8%	-3.3%
Tobacco	93.7%	91.7%	-2.1%

Other Aspects and Outcomes of the MSA Program

5. The MSA Program’s Eight Specific Objectives* have grown out of the 4 Core Measures and have nearly all been met or exceeded by the outcomes to date. One of the Objectives, however, deserves special attention in relation to the Core Measures. It provides answers to the *“Why do we care?”* question:

MSA’s evidence establishes that **Negative or violent Consequences which result from AOD use are prevented/reduced when underage use of AOD is prevented/reduced. See tables attached.**

Note: The Consequence Tables clearly show that the more students drink, they more likely they are to Drive Under the Influence and/or to Ride with drivers Under the Influence (85% of heavy drinkers did so in the school where we measured this variable).

6. MSA’s STARR Screening, Brief Intervention and Referral to Treatment (sbirt) Program

In addition to the target prevention activities that have led to the outcomes reported above, students who have been using AOD and have found themselves in trouble with the school

disciplinary system and/or State laws are referred to a brief intervention program by school authorities (usually following legal referrals), parents, or peers. Results to date indicate that MSA's adaptation of the SAMHSA Model Program, BASICS, is working even more effectively for high school students than it has for college students:

To date, more than 40 students have completed STARR, though not all completed post-tests.

- **Of those tested who were referred primarily for alcohol or marijuana problems, 90% report no use as of three or more months after completing the fourth (final) session.**
- **Of those referred primarily for tobacco, 50% report no use as of three or more months after completing the fourth (final) session.**

Success has led to the decision to offer the STARR Intervention to all schools who wish to integrate it into their AOD Disciplinary Policy. The Intervention is comprised of four one-on-one sessions. The program will be free to the schools. Charges to individual students will be adjusted to ability to pay.

***MSA OUTCOME OBJECTIVES, 2005 – 2010**

Student AOD-related Behavior

1. Reduced Student Misperception of Norms Objective
2. Reduced Underage Drinking Objective
3. Increased Abstinence Objective
4. Increased Perception of Risk Objective
5. Reduced Consequences Objective (**see attachments**)

Parents or Parents & Students Behavior

6. Reduced Adult Misperception of Norms Objective
7. Increased Parent/Student Talk Objective
8. Increased AOD-Related Parenting Objective (Modeling, Monitoring, and AOD Knowledge Base for Talk)

Attachments: Consequence Tables, 2006-2009

Highlights = Statistically Significant Results

Percent of all District #1 students who drank alcohol (in the past 30 days) and who suffered the named consequence in 2006 v. 2009, after 3 years of MSA prevention. Drinkers = 35% in 2006 & 29% in 2009.					Percent of Heavy Drinkers (had 4 or more drinks per occasion) who suffered the named consequence in 2009
Consequences	2006	2009	Percent Change	2009 Consequences for Heavy Drinkers	
Violent or Potentially violent consequences					
1. Driven a car under the influence	18.4%	11.3%	38.6%	42.5%	
2. Drove or rode with Driver Under Influence	NA	NA	NA	NA	
3. Got into a fight or argument	32.2%	17.7%	45.0%	30.0%	
4. Been punished by parent or guardian	29.6%	21.1%	28.7%	25.0%	
5. Had unwanted sex or sexual contact	19.0%	8.3%	56.3%	17.9%	
6. Been in trouble with the police	12.7%	3.6%	71.7%	15.0%	
Recognition of ACADEMIC consequences grows over time					
7. Turned in late papers, missed a test or failed to study	29.7%	33.2%	-11.8%	55.0%	
8. Had missed school	23.0%	25.4%	-9.4%	45.0%	
9. Performed poorly on a test or project	12.4%	26.7%	-115.3%	37.5%	

Percent of all District#2 students who drank alcohol in the past 30 days and who suffered the named consequence in 2007 v. 2009, after two years of MSA Prevention Programming. ("Drinkers" = 36% of school population in 2007 and 30% of school population in 2009)			Percent of Heavy Drinkers (had 4 or more drinks per occasion) who suffered the named consequence in 2009	
Consequences	2007	2009	Percent Change	2009 Consequences for Heavy Drinkers
Violent or Potentially violent consequences				
1. Drove or <u>rode with</u> Driver Under Influence	50.7%	48.5%	4.3%	85.1%
2. Drove a car under the influence	14.1%	8.8%	37.6%	26.1%
3. Been punished by parent or guardian	21.5%	18.9%	12.1%	39.2%
4. Got into a fight or argument	22.0%	13.4%	39.1%	32.2%
5. Had unwanted sex or sexual contact	NA	9.8%	NA	26.1%
6. Been in trouble with the police	8.4%	6.3%	25.0%	19.1%
Recognition of ACADEMIC consequences grows over time				
7. Had missed school	10.5%	22.5%	114.3%	48.7%
8. Turned in late papers, missed a test or failed to study	15.4%	20.9%	35.1%	42.7%
9. Performed poorly on a test or project	7.1%	16.8%	136.6%	29.6%

Highlights = **Statistically Significant Results**