2017 Meriden Healthy Youth Coalition (MHYC)
Student Core Measures Survey Report

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I. Introduction

This report summarizes the findings of the 2017 *Core Measures Survey* with students in Meriden, CT. The survey (see Appendix 1) contained 20 questions which solicited data on student substance use and gambling behavior. The information on drug use help us assess MHYC's progress in reducing substance abuse as well as plan future actions. The gambling questions helped the South Central CT Substance Abuse Council estimate the prevalence of problem gambling among adolescents.

More specifically, the survey gathered data on what are referred to as the four *core measures*: (1) the frequency of recent (past 30 days) substance use, (2) the perceived risks of such substance use, (3) the perceived disapproval of substance use by parents, and (4) the perceived disapproval by peers. The gambling questions were adopted from a modified version of the South Oaks Gambling Screen – Revised for Adolescents (SOGS-RA, see Winters, Stinchfield & Fulkerson, 1993), an epidemiologic screening tool.

II. Administration and Sample Details

The survey was administered in cooperation with administrative personnel of the Meriden Public Schools. The survey was presented via computer to seventh through twelfth grade students attending public elementary, middle and high schools in Meriden. To complete the surveys, classes in each school went to the school's computer lab to take the survey, typically during an Advisory period. The logistics of rotating individual classrooms through the computer lab was quite time-consuming and the data collection phase lasted approximately four weeks (October 25 – November 20). The actual scheduling of survey times was left up to the individual schools.

Participation of students in the survey involved passive consent from the parents or guardians, i.e., if parents did not want their child(ren) to take the survey, they needed to notify the school in writing. **Details of administration needed.**

All told, a total of 2012 surveys were completed across the schools. Data from the school system indicated that there were 2953 students enrolled in grades seven to twelve. Table 1 shows the enrollment and the survey completion rate by grade.

Table 1. Respondents by grade versus actual enrollment.

Grade	# of Respondents	Actual Enrollment	% Completion
7th	314	480	65.4
8th	412	465	88.6
9th	371	540	68.7
10th	346	510	67.8
11th	312	460	67.8
12th	257	498	51.6
Total	2012	2953	68.1

As can be seen, the overall completion rate was slightly over two-thirds (68.1%); grade 8 had the highest rate (88.6%), while seniors had the lowest (51.6%).

Following data collection, the data were screened for quality of responses. That is, we looked for individuals who either did not answer most of the questions or responded in ways that reflected noncontingent responding, i.e., the "tendency to respond to items carelessly, randomly, or nonpurposefully" (Van Vaerenbergh & Thomas, 2013, p. 197).

This latter concern reflected students who: (a) indicated taking each of the five substances inquired about--alcohol, marijuana, cigarettes, prescription drugs not prescribed for them, e-cigarettes ("vaping")--40 times or more in the past 30 days, or (b) responded to all the core questions with the exact same numerical response, even though the responses logically contradicted each other[1]. These screen procedures eliminated a total of 376 (18.7%) of students from the original sample, a relatively large percentage for a school survey. Table 2 shows the original and final sample by sex and grade.

Table 2. Changes in original versus screened sample by grade and sex.

Grade	Sex	Original # of Respondents	Final # of Respondents	% Decrease
7th	Females	158	104	34.2
	Males	156	99	36.5
	(total)	(314)	(203)	(35.4)
8th (total)	Females	202	164	18.8
	Males	210	157	33.8
	(total)	(412)	(321)	(22.1)
9th (total)	Females	183	162	13.0
	Males	188	151	19.7
	(total)	(371)	(313)	(15.6)
10th (total)	Females	179	152	15.1
	Males	167	145	13.2
	(total)	(346)	(297)	(14.2)
11th (total)	Females	147	131	10.9
	Males	165	146	11.5
	(total)	(312)	(277)	(11.2)
12th (total)	Females	142	126	11.3
	Males	115	99	13.9
	(total)	(257)	(225)	(12.4)
Total		2012	1636	18.7

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[1]These students indicated no use of any drugs but also indicated that they saw no risk of harm from using any of these drugs. They also perceived that their parents and peers would say it was "very wrong" for them to use these drugs. Considerable research has found that low use of harm correlates with greater likelihood of use and lower rates of peer disapproval. The reported response pattern is thus highly inconsistent with existing research. The pattern is, however, an example of noncontingent responding, where the responses bear no relationship to the actual content of the questions.

Overall, a higher proportion of males than females were removed from the original sample based on the screening procedures. The highest proportion of students removed was from the seventh grade. A more complete discussion of the implications of this screening is discussed in Section X.

III. 30-day Use of Substances

This section presents data on 30-day use of alcohol, marijuana, cigarettes, and prescription drugs not prescribed to the student. For each substance, comparable data collected via the *Pride Survey* in 2015 is included.

A. *Alcohol*

Table 3 shows the prevalence of alcohol use by grade. The overall rate is 12.6% and the rate generally increases by school year, a typical pattern. The rate of students who use alcohol frequently is low. The overall rate found in the *Pride Survey* in 2015 was 14.3%, so the current value represents an **11.9% decrease** in prevalence.

Table 3. 30-day prevalence of alcohol use by grade (**in %**) (N = 1636)

Grade	Used in last 30 days	Used 1-5 times	Used 6 times or more
7th	6.4	4.9	1.5
8th	12.1	10.3	1.9
9th	12.5	10.2	2.2
10th	11.8	9.8	2.0
11th	14.4	13.4	1.1
12th	17.8	14.2	3.6
Overall	12.6	10.6	2.0

B. *Marijuana*

Table 4 presents marijuana use by grade. The rate increases by school year with the rate approximately doubling between ninth and tenth grade and again between junior and senior year. The overall rate, 9.6%, is a **22.0% decrease** from the 12.3% rate found in the 2015 *Pride Survey*.

Table 4. 30-day prevalence of marijuana use by grade (**in %**) (N = 1636)

Grade	Used in last 30 days	Used 1-5 times	Used 6 times or more
7th	3.0	2.0	1.0
8th	5.9	4.7	1.2
9th	7.3	4.2	3.2
10th	11.4	5.4	6.1
11th	10.1	5.8	4.3
12th	20.9	12.0	8.9
Overall	9.6	5.6	4.0

C. *Cigarettes*

The rate of cigarette use by grade is displayed in Table 5. The overall rate, 2.4%, is low and represents a **27.3% decline** from 2015 level of 3.3%. Examination of the frequency of smoking suggests that in tenth and twelfth grade, there are more regular smokers vs. occasional users.

Table 5. 30-day prevalence of cigarette use by grade (**in %**) (N = 1636)

Grade	Used in last 30 days	Used 1-5 times	Used 6 times or more
7th	1.5	1.0	0.5
8th	3.4	2.5	0.9
9th	2.6	1.9	0.6
10th	2.4	1.0	1.3
11th	2.2	1.8	0.4
12th	1.8	0.4	1.3
Overall	2.4	1.5	0.9

D. *Prescription drugs not prescribed to you*

Data on prescription drug abuse is contained in Table 6. The overall rate of 2.9% is **6.4% lower** than the rate found in 2015 (3.1%). The highest reported rate of use is in ninth grade.

Table 6. 30-day prevalence of prescription drugs not prescribed to you by grade (**in %**) (N = 1636)

Grade	Used in last 30 days	Used 1-5 times	Used 6 times or more
7th	2.0	1.0	1.0
8th	3.1	3.1	0.0
9th	4.2	3.2	1.0
10th	3.0	2.7	0.3
11th	2.5	1.4	1.1
12th	2.2	1.8	0.4
Overall	2.9	2.3	0.6

In comparison with two years ago, three of the four substances show a double digit decline in rates of use, while prescription drug abuse displayed a more modest drop.

IV. Perceived Risk of Harm from Substance Use

The second core measure is perceived risk of harm (physically or in other ways) from regular use of the substance. Students were given 4 response choices: (a) no risk, (b) slight risk, (c) moderate risk, and (d) great risk. In the tables below, we have grouped these into two categories which is the standard practice in the field.

A. *Alcohol*

The perceived risk of binge drinking once or twice a week is presented in Table 7. Across all grades, slightly more than six in ten students (62.0%) perceive this practice as a moderate or great risk. Eighth grade students were the least likely to see the harm in this behavior. The overall level represents a **13.8% decrease** in perceived harm from 2015 where 71.9% saw such alcohol use as risky.

Table 7. Perceived risk of drinking five or more alcoholic beverages once or twice a week by grade (**in %**) (N = 1635)

Grade	No or Slight Risk	Moderate or Great Risk
7th	36.0	64.0
8th	46.7	53.3
9th	37.5	62.5
10th	34.0	66.0
11th	34.7	65.3
12th	37.3	62.7
Overall	38.0	62.0

B. *Cigarettes*

Table 8 reports the perceived risks of smoking one or more packs a day. These risks are considered more severe than binge drinking, with more than three-quarters of students (77.3%) reporting moderate or great risk. Nonetheless, this rate is **8.2% lower** than that reported in 2015 (84.2%).

Table 8. Perceived risk of smoking one or more packs of cigarettes per day by grade (**in %**) (N = 1635)

Grade	No or Slight Risk	Moderate or Great Risk
7th	23.2	76.8
8th	23.7	76.3
9th	26.0	74.0
10th	22.6	77.4
11th	19.5	80.5
12th	20.4	79.6
Overall	22.7	77.3

C. *Marijuana*

The perceived risk of regular marijuana use is considerably less than the previous substances. Overall, less than half (46.4%) the students regard such use as a moderate or great risk. The perceived risk drops fairly consistently with grade level. The current level represents a **13.3% drop** from the 2015 level of 53.5%.

Table 9. Perceived risk of smoking marijuana once or twice a week (**in %**) (N = 1635)

Grade	No or Slight Risk	Moderate or Great Risk
7th	33.5	66.5
8th	45.5	54.5
9th	55.8	44.2
10th	52.2	47.8
11th	63.9	36.1
12th	69.3	30.7
Overall	53.6	46.4

D. *Prescription drugs not prescribed for them*

The final perceived harm question regards using prescription drugs not prescribed for you (Table 10). More than three-quarters of the students (76.5%) regard this as a moderate or great risk, a perception consistent across all grade levels. The comparison figure from 2015 is 82.4%, so again this represents a **decline** (**7. 2%**) in the perceived harm of use

Table 10. Perceived risk of using prescription drugs that are not prescribed for you (**in %**) (N = 1635)

Grade	No or Slight Risk	Moderate or Great Risk
7th	23.2	76.8
8th	26.5	73.5
9th	26.3	73.7
10th	23.6	76.4
11th	19.9	80.1
12th	20.0	80.0
Overall	23.5	76.5

All four substances show a decline in perceived risk from 2015 levels with the biggest declines for alcohol and marijuana.

V. Perceived Parental Disapproval of Substance Use

The next section examines perceived parental disapproval regarding the use of the four substances. Again, the four response choices--very wrong, wrong, a little bit wrong and not wrong at all--have been collapsed into two categories, the standard reporting format.

A. *Alcohol*

Students were asked about their perceived disapproval from their parents regarding having one or two drinks of alcohol nearly every day (Table 11). Students consistently and overwhelmingly reported that their parents would consider such behavior as very wrong or wrong (94.3%). This rate is **nearly identical** to the 2015 level of 94.4%.

Table 11. Perceived parental disapproval of having one or two drinks of an alcoholic beverage nearly every day by grade (**in %**) (N = 1635)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	95.6	4.4
8th	96.3	3.7
9th	95.2	4.8
10th	93.3	6.7
11th	92.8	7.2
12th	92.4	7.6
Overall	94.3	5.7

B. *Tobacco*

Even more so than with daily use of alcohol, students perceive that their parents would uniformly condemn smoking tobacco (97.2%). This represents a slight increase (**1.0%**) over the 2015 level of 96.2%.

Table 12. Perceived parental disapproval of smoking tobacco by grade (**in %**) (N = 1635)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	98.5	1.5
8th	96.3	3.7
9th	97.8	2.2
10th	95.3	4.7
11th	98.9	1.1
12th	97.3	2.7
Overall	97.2	2.8

C. *Marijuana*

Perceived parental disapproval for smoking marijuana (Table 13) is slightly lower than for smoking tobacco, but nearly 9 out of ten students (89.8%) felt their parents would say it was very wrong or wrong. The disapproval rate trends downward with advancing grade. The current level is a **2.4% drop** since 2015 when the level was 92.0%.

Table 13. Perceived parental disapproval of marijuana use by grade (**in %**) (N = 1635)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	95.6	4.4
8th	93.5	6.5
9th	94.9	5.1
10th	83.8	16.2
11th	88.1	11.9
12th	82.7	17.3
Overall	89.8	10.2

D. *Prescription drugs not prescribed for you*

Parental disapproval for using non-prescribed prescription drugs is very strong with, overall, 96.9% indicating it would be very wrong or wrong (Table 14). This represents a **very modest increase** (**0.5%**) over 2015 when the rate was 96.2%.

Table 14. Perceived parental disapproval of using prescription drugs not prescribed for you (**in %**) (N = 1635)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	98.5	1.5
8th	96.3	3.7
9th	96.2	3.8
10th	96.0	4.0
11th	97.5	2.5
12th	97.8	2.2
Overall	96.9	3.1

Three of the four substances are either equivalent or slightly ahead of 2015 levels. Only in the case of marijuana do we see a decline in the perceived parental disapproval regarding use.

VI. Perceived Peer Disapproval of Substance Use

The last core measure involves perceived peer disapproval of substance use.

A. *Alcohol*

For alcohol (Table 15), a majority of students (76.7%) believe their peers would think it very wrong or wrong for them to consume alcohol frequently. The disapproval rate tends to drop off with grade. The 2017 level is a **0.7% increase** from the 2015 level (76.2%).

Table 15. Perceived peer disapproval of having one or two drinks of an alcoholic beverage nearly every day by grade (**in %**) (N = 1635)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	91.1	8.9
8th	78.7	21.3
9th	82.0	18.0
10th	72.6	27.4
11th	67.1	32.9
12th	70.9	29.1
Overall	76.7	23.3

B. *Tobacco*

Smoking tobacco (Table 16) is somewhat more condemned than alcohol with 86.7% of students reporting that their friends would say it is very wrong or wrong. This is a **.9% decline** from the 2015 standard of 87.5%

Table 16. Perceived peer disapproval of smoking tobacco by grade (**in %**) (N = 1628)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	94.6	5.4
8th	82.1	17.9
9th	87.5	12.5
10th	86.8	13.2
11th	87.4	12.6
12th	84.3	15.7
Overall	86.7	13.3

C. *Marijuana*

A majority of students (66.7%) felt their peers would strongly disapprove if they smoked marijuana (Table 17), although the level of disapproval dropped consistently by grade level. Nearly 90% of seventh graders thought their friends would disapprove but less than half of twelfth graders felt their friends would be critical. The current level is **essentially the same** as the 2015 value (66.8).

Table 17. Perceived peer disapproval of marijuana use by grade (**in %**) (N = 1628)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	89.6	10.4
8th	74.6	25.4
9th	73.0	27.0
10th	58.4	41.6
11th	56.7	43.3
12th	49.3	50.7
Overall	66.7	33.3

D. *Prescription drugs not prescribed for you*

Finally, nearly nine out of ten students (88.5%) felt their peers would seriously disapprove of their use of prescription drugs not prescribed for them. This level is **down 1.7%** from two years ago when it was 90.0%.

Table 18. Perceived peer disapproval of using prescription drugs not prescribed for you (**in %**) (N = 1628)

Grade	"Very Wrong" or "Wrong"	"A Little Bit Wrong" or "Not Wrong at All"
7th	93.6	6.4
8th	85.6	14.4
9th	89.1	10.9
10th	87.8	12.2
11th	86.6	13.4
12th	90.1	9.9
Overall	88.5	11.5

In summary, students see the majority of their peers (greater than 80%) as strongly disapproving the student's use of tobacco and non-prescribed medications; they are more tolerant of alcohol and marijuana use. There are only small differences, less than 2%, between the levels found two years ago and the current survey, suggesting little has changed in regard to perceived peer disapproval.

VII. Other Substance Use Issues

We also asked about two other substances that were not related to the core measures in the current survey. First, we asked about the frequency of use of e-cigarettes ("vaping"). The use of electronic nicotine delivery systems has increased rather dramatically in several Connecticut high schools. Table 19 presents the results. The overall rate is 8.9% but exceeds 10% in grades eight, nine and ten. Students were not asked about this in 2015 so we have no comparison data. Judging from data from other high schools, many students think that use of vaping systems are benign and pose few risks, despite evidence to the contrary.

A. *Use of e-cigarettes*

Table 19. 30-day prevalence of e-cigarette use ("vaping") by grade (**in %**) (N = 1636)

Grade	Used in last 30 days	Used 1-5 times	Used 6 times or more
7th	6.4	5.4	1.0
8th	10.6	8.4	2.2
9th	11.5	7.7	3.8
10th	10.4	7.4	3.0
11th	6.9	4.0	2.9
12th	5.8	3.6	2.2
Overall	8.9	6.3	2.6

B. *Received opioid prescriptions from medical professionals*

Our final drug-related question asked students if they had been prescribed opioid pain killers ("like Oxycontin, Percocet, or Vicodin") by a health professional in the last year for pain resulting from surgery, dental procedures or an injury. About one student in ten reported getting a prescription from a medical professional during the past year (see Table 20), with the trend generally increasing by school year. Younger students were less likely to recall which suggests that these students may be less aware of the contents of the prescriptions they receive. The rate of students who report receiving opioid medications should be a cause for concern among parents; they should be encouraged to be more proactive when interacting with medical professionals regarding pain medication for their children.

Table 20. Received prescription for opioids from medical professional for pain in past year by grade (**in %**) (N = 1628)

Grade	No	Yes	Don't Remember
7th	71.8	6.9	21.3
8th	71.5	9.7	18.8
9th	70.4	11.6	18.0
10th	80.7	7.1	12.2
11th	80.1	13.4	6.5
12th	81.6	12.6	5.8
Overall	75.6	10.3	13.9

VIII. Gambling Behaviors

The questions on gambling were essentially sorted into two parts. The first part (see Table 21) asked about what types of gambling the individual had done in the past 12 months. If the person indicated that had not done any of the types listed, they were automatically routed to the final question on the survey, an open-ended inquiry asking if they would like to comment about any of the topics mentioned in the survey.

Table 21. Types of gambling done by students in past 12 months by grade (**in %**) (N = 1636)

Type of Gambling in past year[1]	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Overall
Played cards for money	5.4	8.1	7.0	5.7	5.4	4.4	6.2
Bet on sports for money	10.8	11.5	11.5	11.4	10.8	6.7	10.6
Played dice games for money	2.0	3.4	2.6	2.4	2.9	3.1	2.8
Bought lottery tickets or "scratch off" games	5.4	7.2	6.1	7.4	7.2	4.0	6.4
Bowled, shot pool, played golf or darts or some other game of skill for money	4.4	6.2	5.1	5.1	3.6	1.8	4.5
Bet on horses, dogs or other animals for money	2.5	0.9	1.3	1.7	1.8	2.2	1.7
Gambled at a casino	2.0	0.6	1.6	1.0	1.4	0.9	1.2
Played bingo for money	5.4	6.2	5.1	4.0	5.8	2.7	5.0
Did some other form of gambling for money	2.5	6.5	3.8	3.7	4.0	2.2	4.0
Did some form of gambling in past year	24.6	29.3	26.8	22.6	22.0	16.4	24.0

[1]Examples were included for some of these types; see Appendix 1 for full wording of questions.

Overall, about one-quarter (24%) of the students reported participating in some type of gambling behavior in the past year. The most common type of betting was on sporting events (10.6%), followed by buying lottery or "scratch off" tickets (6.2%) and betting on cards (6.2%). The percentage of students who reported any form of gambling exceeded 20% of the students in every grade except for seniors who were noticeably lower.

If students indicated that they had done at least one type of gambling in the past year, they were asked 11 additional questions regarding their gambling behavior (see Table 22). Each "yes" answer scored one point on the SOGS-RA.

Table 22. Percent of students who gambled in past 12 months who reported specific behaviors (**in %**) (N ranged from 369 to 382 since students skipped some items)

Gambling Behavior in past 12 months	**No**	**Yes[1]**
How often have you gone back another day to try and win back money you lost gambling?[2]	93.5	6.5
When you were betting, have you told others you were winning money when you weren't?	91.9	8.1
Has your betting ever caused any problems for you such as arguments with family or friends or problems at school or work?	91.5	8.5
Have you gambled more than you planned to?	89.4	10.6
Has anyone criticized your betting, or told you that you had a gambling problem whether you thought it was true or not?	94.7	5.3
Have you ever felt bad about the amount of money you bet, or about what happens when you bet money?	90.8	9.2
Have you ever felt that you would like to stop betting money bud didn't think you could?	91.8	8.2
Have you ever hidden from family or friends any betting slips, IOUs, lottery tickets, money that you have won, or other signs of gambling?	94.3	5.7
Have you had money arguments with family or friends that centered on gambling?	92.7	7.3
Have you ever skipped or been absent from school or work due to betting activities?	92.7	7.3
Have you borrowed money or stolen something in order to bet or to cover gambling debts?	95.1	4.9

[1]Each "Yes" response to a question added 1 point towards an individual's SOGS-RA score.
[2]In the survey, the response choices to this question "never" or "some of the time" were scored as a 'no' response, while "most of the time" or "every time" were scored as a 'yes'.

The most commonly reported behavior was "gambling more than you planned to" endorsed by over 10% of the respondents. On average, 90% or more of the students indicated that they had not done the various behaviors. With one point for each "yes" answer, the screening threshold of problematic gambling behavior was set at three or more points by the scale developers (Winters et al, 1993).

Table 23 shows the percentage of scores at levels from zero to three or more by grade. Overall, nearly 12% of students who reported gambling in the past 12 months have reached or exceeded the three point threshold. The highest rates are among high school juniors and seniors, although seventh graders have a disturbingly high percentage.

Table 23. SOGS-RA scores for students who have gambled in the past 12 months by grade (**in %**) (N = 355)

SOGS-RA Score	6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Overall
0	0.0	55.3	65.5	70.5	70.7	75.0	70.6	68.4
1	0.0	26.3	18.4	14.1	15.5	6.7	14.7	15.5
2	0.0	5.3	3.4	6.4	5.2	3.3	0.0	4.2
3 or more	0.0	13.2	12.6	9.0	8.6	15.0	14.7	11.8

It should be kept in mind that the numbers shown in Table 23 represent the percentages among students who have gambled in the past year, a behavior done by a minority of students. If we recalculate the rate of potential problem gamblers based on the entire population of students Table 24), we can see the rate is generally under three percent.

Table 24. Estimated prevalence of problem gambling by grade (**in %**) (N = 1636)

SOGS-RA Score	6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Overall
3 or more	0.0	2.46	3.43	2.24	1.68	3.25	2.22	2.57

IX. Open-ended Comments

There were 1600 comments made in response to the final survey item: ”Do you have any comments about the topics mentioned in the survey? If so type them here.” A number of these were simply saying no [“no, no comment, N/A, nadda, nah, negative, sir, I have no comments” . . .]. Others were irrelevant to the content of the survey [“give us better food, have a nice day, Gucci Gang, saggy naggy” . . .] or were meaningless (at least to us) [“add me on roblox campapi123” . .].

The more coherent comments could be grouped into a number of categories; the five most frequent are listed below with several examples of each:

Confidentiality/Accuracy

- “Do you really expect me to trust this. I mean, I never had done anything that involves beer or drugs but if I did, how would I know to trust you guys. I know this is not anonymous. I know you guys know who is this. I’m not that dumb.”
- “Even if say someone did all of this, why would they openly tell you? It’s dumb in a way, because underage drinking, smoking, etc. is illegal, and obviously they would want to hide it, wouldn’t they? Who wants to give themselves out if they are hiding it from their own parents”
- “I don’t know why you guys make do this when y’all know we about lie up on here LOL”
- “Confused really, even if someone did any of this. Why would they admit it when it could cause them to get in trouble? Doesn’t seem to make sense.”

Purpose of questions/survey/Invasion of privacy

- “I don’t think filling out this survey will benefit anyone in any sort of way”
- “It was pretty pointless”
- “Why do you guys want to know personal information about teens if you guys aren’t gonna take actions into matters”
- “Yes, why were these questions even asked, its my business to know what I do.”

Appropriateness of the questions

- “I think some of the questions unnecessary of 7th graders”
- “Why so much about gambling? I’ve never met a kid in this 1000 plus kid school that gambles enough to have a problem, or even gambled in a whole”
- “I have one comment. Why is this given to 7th graders? Why would we do any of these at our age”

Providing personal explanations of answers

- “I have vaped once in my life and drank wine twice and beer once and a takela popsecol”
- “Smoked weed once. Haven’t done it since. I’m a good kid. I’m not into drugs, or drinking or vaping . . .”

- "For question number 3 Y dad drinks a cup of alcoholic once or twice a day and I can have a tiny sip of it just to see how it taced"
- "I only bet $5 on a madden game"
- "I never due big gambling only small bets with family members, like beating 3 dollars on a monopoly"

Statements that the individuals don't use drugs or gamble

- "I don't smoke, drink alcohol or, gamble in any way at all I don't do any of those things"
- "Drugs are for losers. Don't do them. They're not cool stay in school"
- "I am a good child I promise I don't plan on doing any of these in the future."
- "I don't do any of that stuff it is wrong and disgusting."

X. Some Thoughts about Survey Accuracy

Despite the authors' efforts to screen the survey data, we have serious concerns about the accuracy of the data for three reasons. First, as shown in Table 1, surveys were only completed by about two-thirds (68.1%) of the potential students. Completion rates varied by grade with exceptional representation of eighth grade students, almost 89%, to only about half (51.6%) of twelfth graders. We do not know what accounts for this variation between grades, i.e., if it reflects procedural or priority differences between schools, refusals by students to participate, or other factors. The smaller representation of high school seniors, the population that, traditionally, has the greatest use of substances, can potentially contribute to underestimates of overall use rates.

Second, the relatively high proportion of students who were not included in the final sample because of irregularities in their response patterns (18.7%) also makes us wonder about accuracy of the results.

Finally, a number of the comments noted above suggested that students did not believe this survey was truly anonymous and were worried about the ramifications of admitting to illegal behavior. While this survey was done anonymously, students in the Meriden School System take other surveys, e.g., school climate surveys, where responses are not anonymous, and students who respond in certain ways that statistically suggest personal problems are contacted by staff members of the school system for follow-up discussions. While the value of such interventions may be quite valuable for the students involved, and while the interventions are undoubtedly done confidentially and discretely, it is hard to believe that other students in the school are not aware that their answers on some surveys may have consequences. While students did not log on to this particular survey using student identification numbers, we believe that many students may have come to question the anonymity of any computer-based surveys.

Consequently, while we tend to take the results of any student survey "with a grain of salt", the accuracy of this survey may require the reader to add additional seasoning. We believe the data described in this report should be understood to be a ***very conservative estimates*** of actual rates of substance use.

XI. Summary

Given the caution above regarding accuracy in the data, here is what the current figures indicate:

(1) There has been a consistent decrease in 30-day use of alcohol, cigarettes, marijuana and non-prescribed prescription drugs compared to 2015.

(2) There has been a consistent decrease in the perceived risk of using alcohol, cigarettes, marijuana, and prescription drugs compared to 2015. This is generally not consistent with the reported drop in usage.

(3) Overall, the perception of parental disapproval has remained largely unchanged from 2015.The largest change was for marijuana which showed a 2.4% decline from 2015.

(4) Likewise, there has been minimal change in regards to peer disapproval since 2015. The biggest change was a 1.7% decrease in the level of disapproval for use of non-prescribed prescription drugs.

(5) About 1 student in 11 has vaped in the past 30 days and the number of regular users is just under 3%.

(6) Slightly more than 10% of students report being prescribed opioid drugs in the past 12 months.

(7) While about a quarter of the students have reported doing some type of gambling behavior in the past year, the prevalence of potential problem gamblers is just under 3%.

XI. Recommendations

1. The consistent drop in reported 30-day use is a positive sign. On the other hand the apparent drop in perceived risk is a cause for concern and needs to be understood. It may be useful to do a few focus groups to get a clearer picture of how students perceive the risk and how they view the anonymity of computer-based surveys (see #4 below).

2. Vaping now represents the third most frequent substance-related activity among students in Meriden (8.9%) surpassing the use of tobacco and prescription drug abuse, and close behind marijuana (9.6%). Many students may be under the impression that vaping is “safe.” Current drug education efforts should include some information regarding the risks of vaping any substance.

3. Slightly more than one in ten Meriden students reported getting an opioid prescription from a medical professional during the past year. This should be a cause for concern among parents and they may need to be more proactive when interacting with medical professionals regarding pain medication for their children.

4. We need to get a better understanding of how Meriden students perceive the anonymity of computer-based surveys. Perhaps more information should be given before administering substance use surveys that clarify the anonymity of these surveys and that personal information is not being captured by the school.

XII. References

Van Vaerenbergh, Y., & Thomas, T. D. (2013). Response styles in survey research: A literature review of antecedents, consequences, and remedies. *International Journal of Public Opinion Research, 25(2)*, 195-217.

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