

## **Introduction**

The purpose of this assessment was to gather accurate, reliable information regarding the health behaviors and needs of middle school (8<sup>th</sup> grade students) and high school (10<sup>th</sup> and 12<sup>th</sup> grade students) in the Orange County Schools. Specifically, the assessment recorded the frequency and prevalence of alcohol, tobacco and other drug usage activities, exercise and dietary behaviors, violence-related activities, and a variety of other health and safety related activities among these students.

### **Questions**

The specific questions addressed by this assessment are:

- ◆ What is the current level of risk-taking behaviors among 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade students?
- ◆ How do the current levels of self-reported behavior among Orange County high school students compare with their national counterparts (2009 CDC YRBS)?
- ◆ What are the health related needs for students in Orange County middle and high school?

### **Instrumentation and Administration**

The Centers for Disease Control (CDC) Youth Risk Behavior Survey (YRBS) was adapted for distribution to Orange County 10<sup>th</sup> and 12<sup>th</sup> grade students. The survey was adapted to procure information on the CORE measures (Alcohol, Tobacco, Marijuana: 30 day use; age of onset; perception of harm; and perceptions of parental disapproval). The adapted YRBS contained 107 questions. All questionnaires were multiple choice instruments. It is anticipated that the data gathered from the administration of these surveys will provide school and health department personnel with useful reliable and valid data which should help in future planning and resource allocation. The YRBS was administered to all 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade Orange County School students during Spring, 2011

Completed opscans were returned to Drs. Kerry Redican (Virginia Tech) and David Sallee (Radford University) for processing, data analysis (SPSS 11.0) and reporting.

This report will highlight important frequencies with respect to risk taking behaviors of the respondents. In addition to a summarization of findings complete frequency data can be found in Tabs 1-3;

Tab 1: Middle and High School data by Grade

Tab 2: Middle and High School data by Gender

Tab 3: Presentation Table and Comparison to National Data

### **Middle and High School Demographic Data**

Eight hundred and sixty (n=860) students completed the YRBS. Fourteen percent (14%, n=121) were 13 years old, 21% (n=182) 14, 15% (n=127) 15, 23% (n=197) 16, 12% (n=102) 17, and 14% (n=122) were 18 years old or older. In terms of grade, 38% (n=324) were 8<sup>th</sup> grades, 37% (n=317) 10<sup>th</sup> graders and 25% (n=310) 12<sup>th</sup> graders. Fifty one percent (51%, n=436) were females and 49% (n=420) were males. Sixty five percent (n=554) were White, 16% (n=133) Black, 11% (n=97) Multiracial, 3.5% (n=30) Hispanic or Latino, 3.3% (n=28) American Indian or Alaskan Native and <1% Asian (n=8) and Native Hawaiian or Pacific Islander (n=6). Finally, 52% (n=446) reported that their grades were mainly A's and B's.

### **Middle School (8<sup>th</sup> Grade) Results**

Of the 8<sup>th</sup> grade students (n=324) completing the YRBS:

- **71.6% (n=202) never or rarely wore a bicycle helmet when riding a bicycle, motorcycle, or ATV in the past 12 months;**
- **16.7% (n=54) never or rarely wore a seat belt when riding in a car driven by someone else;**
- **21% (n=68) had ridden in a vehicle 1 or more times with someone who had been drinking;**
- **7.7% (n=25) drove a vehicle 1 or more times when they had been drinking alcohol;**
- **23.8% (n=77) carried a weapon on 1 or more of the past 30 days;**
- **8.4% (n=27) did not go to school on 1 or more of the past 30 days because they felt unsafe;**
- **13.9% (n=45) had been threatened or injured with a weapon on school property 1 or more times during the past 12 months;**
- **36.1% (n=117) were in a physical fight 1 or more times during the past 12 months;**
- **7.7% (n=25) whose physical fight during the past 12 months resulted in treatment by a doctor or nurse 1 or more times;**
- **11.9% (n=38) were hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months;**
- **33.2% (n=107) reported being physically harmed by someone in their home;**
- **27.2% (n=88) saw or heard someone in their home being physically harmed;**
- **28.9% (n=93) reported an awareness of gang activity in their school;**
- **13.4% (n=43) were approached to join a gang in gang activities;**
- **29.3% (n=94) felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months;**
- **18.1% (n=58) seriously considered attempting suicide during the past 12 months;**

- **17.1% (n=55) made a plan about they would attempt suicide in the past 12 months;**
- **12.7% (n=41) attempted suicide 1 or more times during the past 12 months;**
- **3.4% (n=11) whose attempted suicide during the past 12 months resulted in treatment by a doctor or nurse;**
- **27.2% (n=88) intentionally cut, pinched, burned, or bruised themselves;**
- **14.9% (n=48) intentionally cut, pinched, burned or bruised themselves in the past 30 days;**
- **73.6% (n=237) knew others who intentionally cut, pinched, burned or bruised themselves;**
- **86.1% (n=278) felt that there was moderate to great risk in smoking a pack or more of cigarettes a day;**
- **62.5% (n=200) felt it would be easy or very easy to get cigarettes;**
- **93.2% (n=300) felt that their parents would feel it was wrong or very wrong for them to smoke cigarettes;**
- **37.7% (n=121) had ever tried cigarette smoking;**
- **18.3% (n=59) smoked a whole cigarette for the first time before age 13;**
- **16.2% (n=52) smoked cigarettes on 1 or more of the past 30 days;**
- **7.2% (n=23) smoked 2 or more cigarettes per day on the days they smoked during the past 30 days;**
- **5.9% (n=19) smoked cigarettes on school property on 1 or more of the past 30 days;**
- **8.5% (n=27) who ever smoked cigarettes smoked cigarettes at least one cigarette every day for 30 days;**
- **58.7% (n=37) who were current cigarette smokers have tried to quit smoking during the past 12 months;**
- **12.4% (n=40) used chewing tobacco or snuff on one or more of the past 30 days;**

- **62.4% (n=201) indicated that there is moderate to great risk in drinking one or two drinks nearly every day;**
- **58.6% (n=187) had at least one drink of alcohol on 1 or more days during their life;**
- **37.6% (n=121) had their first drink of alcohol other than a few sips before age 13;**
- **76.6% (n=246) indicated that their parents would feel it was wrong or very wrong for them to drink regularly;**
- **29.5% (n=95) had at least one drink of alcohol on 1 or more of the past 30 days;**
- **15.5% (n=50) had 5 or more drinks of alcohol in a row on 1 or more of the past 30 days;**
- **3.9% (n=4) that are current drinkers usually bought their own alcohol in a store, gas station, or discount store in the past 30 days;**
- **5.6% (n=18) had at least one drink of alcohol on school property on 1 or more of the past 30 days;**
- **65.4% (n=210) felt it would be fairly easy or very easy to get alcohol if they wanted some;**
- **9.6% (n=31) felt that their family would try not much or not at all to keep them from using alcohol;**
- **71.7% (n=228) indicated that their family has clear rules about alcohol use;**
- **75.4% (n=242) felt that there is moderate to great risk in using marijuana;**
- **91.3% (n=293) felt that their parents would feel it is wrong or very wrong for them to use marijuana;**
- **24.5% (n=79) used marijuana 1 or more times during their life;**
- **12.1% (n=39) tried marijuana for the first time before age 13;**
- **14.6% (n=47) used marijuana 1 or more times during the past 30 days;**

- **4% (n=13) used marijuana on school property 1 or more times during the past 30 days;**
- **7.4% (n=4) of current marijuana smokers received the marijuana from a family member;**
- **6.2% (n=20) used any form of cocaine 1 or more times during their life;**
- **4.7% (n=15) used any form of cocaine 1 or more times during the past 30 days;**
- **20.6% (n=66) used inhalants 1 or more times to get high during their life;**
- **13.6% (n=10) used heroin 1 or more times during their life;**
- **4.7% (n=15) used methamphetamines 1 or more times during their life;**
- **4.1% (n=13) have used ecstasy;**
- **5.8% (n=19) took steroid pills or shots without a doctor's prescription 1 or more times during their life;**
- **4.1% (n=13) injected an illegal drug;**
- **18.7% (n=59) had someone offer, sell, or give them an illegal drug on school property during the past 12 months;**
- **19.5% (n=62) had someone offer, sell or give them an illegal drug in their neighborhood or community in the past 12 months;**
- **11% (n=35) took over-the-counter drugs to get high;**
- **8.9% (n=28) took prescription drugs to get high;**
- **85.5% (n=272) reported that their family has clear rules about drug use;**
- **27.1% (n=86) had ever had sexual intercourse;**
- **11.8% (n=38) had sexual intercourse for the first time before age 13;**
- **5.6% (n=18) had sexual intercourse with 4 or more people during their life;**
- **15.9% (n=51) had sexual intercourse during the past 3 months;**

- **29.7% (n=27) who had sexual intercourse during the past 3 months drank alcohol or used drugs before the last sexual intercourse;**
- **66.7% (n=56) who had sexual intercourse during the past 3 months used a condom during the last sexual intercourse;**
- **12.7% (n=40) had ever been forced to have sexual intercourse when they did not want to;**
- **15.4% (n=12) used birth control pills to prevent pregnancy during their last sexual intercourse;**
- **5.7% (n=18) had been pregnant or gotten someone pregnant 1 or more times;**
- **27.2% (n=88) described themselves as slightly or very overweight;**
- **17.6% (n=56) went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days;**
- **7.2% (n=23) took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days;**
- **6.3% (n=20) vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days;**
- **64.4% (n=208) exercised to strengthen or tone their muscles on 3 or more of the past 7 days;**
- **40.8% (n=131) watched three hours or more of TV or played video games per day on an average school day;**
- **61.4% (n=196) played on 1 or more sports teams during the past 12 months;**
- **80.8% (n=257) had a personal web page, blog, face book, or other technologies currently on the web;**
- **31.5% (n=101) used technology to communicate for three hours or more on an average school day;**
- **30.4% (n=97) received threatening or intimidating messages online or through cell phones;**

- **23.2% (n=74) sent threatening or intimidating messages online or through cell phones;**
- **29.9% (n=95) sent sexually inappropriate pictures or messages using a cell phone or computer;**
- **39.4% (n=125) reported that their parents would be nervous if they knew what they did on the Internet or cell phone;**
- **10.2% (n=32) reported texting while driving in the past 30 days;**
- **86.8% (n=276) felt very informed about safety using the internet;**
- **51.7% (n=166) had been bullied;**
- **55.5% (n=177) had been a bystander while someone else was being bullied;**
- **44.6% (n=139) bullied someone;**
- **15.1% (n=48) were bullied daily or several times a day;**
- **22.9% (n=72) reported to no one that they were being bullied;**
- **10.8% (n=34) missed school because of bullying;**
- **95.3% (n=302) felt their parents would feel it was wrong or very wrong for them to break the law;**
- **84.4% (n=266) reported that there are many chances to get involved in school activities outside of class;**
- **60.4% (n=192) reported that the school lets them or their parents know when they have done something well;**
- **85.6% (n=268) reported that there are adults in their life (who are not their parents) that encourage them to do their best;**
- **47.5% (n=151) volunteer in their community;**
- **85.7% (n=269) reported that one of their parents knows where they are and who they are with when they are not at home;**
- **85% (n=261) reported that their parents would know if they came home on time.**

### **Middle School Data by Gender**

Few differences by gender for middle school students were noted. Specific middle school data by gender can be found under Tab 2

### **Middle School Conclusions**

1. Middle school students engaging in high risk behaviors with respect to tobacco, alcohol, marijuana, inhalants and heroin use is of major concern.
2. Sexual behaviors among middle school students is high.
3. Bullying behaviors are a major area of concern.
4. Middle school students perceive their parents to establishing clear rules regarding substance use.

### **High School (10<sup>th</sup> and 12<sup>th</sup> Grades) Results**

Of the 557 high school students (10<sup>th</sup> and 12<sup>th</sup> grades) students completing the

YRBS:

- 74.8% (n=270) never or rarely wore a bicycle helmet when riding a bicycle, motorcycle, or ATV in the past 12 months (NA National);
- 12.1% (n=63) never or rarely wore a seat belt when riding in a car driven by someone else (9.7% National);
- 25.1% (n=132) during the last 30 days rode 1 or more times in a vehicle driven by someone who had been drinking alcohol (28.3% National);
- 8.4% (n=44) during the past 30 days drove a vehicle 1 or more times when they had been drinking alcohol (9.7% National);

- **18.8% (n=99) carried a weapon on 1 or more of the past 30 days (17.5% National);**
- **6.5% (n=34) did not go to school on 1 or more of the past 30 days because they felt unsafe (5% National);**
- **10.5% (n=55) had been threatened or injured with a weapon on school property 1 or more times during the past 12 months (7.7% National);**
- **30.6% (n=161) were in a physical fight 1 or more times during the past 12 months (31.5% National);**
- **4.2% (n=22) were in a physical fight during the past 12 months that resulted in being treated one or more times by a doctor or nurse (3.8% National);**
- **14.9% (n=78) were hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months (9.8% National);**
- **25.9% (n=136) were physically harmed by someone in their home (NA National);**
- **20.8% (n=109) saw or heard someone in their home being physically harmed (NA National);**
- **48.8% (n=254) were aware of gang activities in their school (NA National);**
- **15.1% (n=79) were approached to join a gang in gang activities (NA National);**
- **35.2% (n=184) had ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months (26.1% National);**
- **15.1% (n=79) seriously considered attempting suicide during the past 12 months (13.8% National);**
- **12.4% (n=65) made a plan about how they would attempt suicide during the past 12 months (10.9% National);**
- **7.6% (n=40) actually attempted suicide 1 or more times during the past 12 months (6.3% National);**
- **2.5% (n=13) whose attempted suicide during the past 12 months resulted in treatment by a doctor or nurse (1.9% National);**

- **30.1% (n=158) intentionally cut, pinched, burned or bruised themselves (NA National);**
- **9.9% (n=52) intentionally cut, pinched, burned or bruised themselves in the past 30 days (NA National);**
- **70.1% (n=364) knew others who intentionally cut, pinched, burned or bruised themselves (NA National);**
- **90.2% (n=471) felt that there is moderate to great risk in smoking a pack or more of cigarettes a day (NA National);**
- **88.4% (n=459) felt it would be fairly easy or very easy to get cigarettes (NA National);**
- **85.6% (n=446) indicated that their parents would feel that it would be wrong or very wrong for them to smoke cigarettes (NA National);**
- **54.1% (n=282) had ever tried cigarette smoking (46.3% National);**
- **14.2% (n=73) smoked a whole cigarette for the first time before age 13 (10.7% National);**
- **22.1% (n=115) smoked cigarettes on 1 or more of the past 30 days (19.5% National);**
- **12.5% (n=65) smoked 2 or more cigarettes per day on the days they smoked during the past 12 months (NA National);**
- **5.6% (n=31) smoked cigarettes on school property on 1 or more of the past 30 days (5.1% National);**
- **15.4% (n=80) who smoked cigarettes smoked at least one cigarette every day for 30 days (NA National);**
- **58.2% (n=78) who were smokers have tried to quit smoking during the past 12 months (NA National);**
- **15.6% (n=81) used chewing tobacco or snuff on 1 or more of the past 30 days (8.9% National);**
- **62.3% (n=324) felt that there was moderate to great risk in drinking one or two drinks nearly every day (NA National);**

- **75.3% (n=391) had a least one drink of alcohol on 1 or more days during their life (72.5% National);**
- **25.1% (n=131) had their first drink of alcohol other than a few sips before age 13 (21.1% National);**
- **64.8% (n=338) indicated that their parents feel it would be wrong or very wrong for them to drink regularly (NA National)**
- **44.7% (n=223) had at least one drink of alcohol on 1 or more of the past 30 days (41.8% National);**
- **34% (n=125) had 5 or more drinks of alcohol in a row on 1 or more of the past 30 days (24.2% National);**
- **2.2% (n=5) who were current drinkers usually bought their own alcohol in a store, gas station, or discount store in the past 30 days (NA National);**
- **8.3% (n=43) had at least one drink of alcohol on school property on 1 or more of the past 30 days (4.5% National);**
- **80.1% (n=415) felt it would be fairly easy or very easy to get alcohol if they wanted some (NA National);**
- **16% (n=83) felt that their family would try not much or not at all to keep them from using alcohol (NA National);**
- **66.7% (n=341) felt that their family has clear rules about alcohol use (NA National);**
- **58% (n=302) felt that there is moderate to great risk in smoking marijuana (NA National);**
- **85.4% (n=444) indicated that their parents would feel that it would be wrong or very wrong for them to smoke marijuana (NA National);**
- **49% (n=255) used marijuana 1 or more times during their life (36.8% National);**
- **10% (n=52) tried marijuana for the first time before age 13 (7.5% National);**
- **27.7% (n=143) used marijuana 1 or more times during the past 30 days (20.8% National);**

- **3.9% ( n=20) used marijuana on school property 1 or more times during the past 30 days (4.6% National);**
- **2.7% (n=4) of current marijuana users reported receiving marijuana from a family member (NA National);**
- **6.6% (n=34) used any form of cocaine 1 or more times during their life (6.4% National);**
- **4.1% (n=21) used any form of cocaine 1 or more times during the past 30 days (2.8% National);**
- **9.1% (n=47) used inhalants to get high 1 or more times during their life (11.1% National);**
- **3.5% (n=18) used inhalants to get high 1 or more times during the past 30 days (NA National);**
- **4.5% (n=23) used heroin 1 or more times during their life (2.5% National);**
- **5.4% (n=28) used methamphetamines 1 or more times during their life (4.1% National);**
- **7.6% (n=39) had used ecstasy (6.7% National);**
- **4.3% (n=22) took steroid pills or shots without a doctor's prescription 1 or more times during their life (3.3% National);**
- **3.3% (n=17) used a needle to inject an illegal drug into their body 1 or more times during their life (2.1% National);**
- **30.6% (n=157) had someone offer, sell, or give them an illegal drug on school property during the past 12 months (22.7% National);**
- **29.1% (n=150) had someone offer, sell, or give them an illegal drug in their neighborhood or community in the past 12 months (NA National);**
- **15.4% (n=79) took over-the-counter drugs to get high (NA National);**
- **18.5% (n=95) took prescription drugs to get high (NA National);**
- **83.8% (n=429) reported that their family has clear rules about drug use (NA National);**
- **64.1% (n=329) had ever had sexual intercourse (46% National);**

- **8.4% (n=43) had sexual intercourse for the first time before age 13 (5.9% National);**
- **19.4% (n=99) had sexual intercourse with 4 or more people during their life (13.8% National);**
- **43.9% (n=226) had sexual intercourse during the past 3 months (34.2% National);**
- **21.8% (n=69) had sexual intercourse during the past 3 months and drank alcohol or used drugs before the last sexual intercourse (21.6% National);**
- **62.2% (n=199) had sexual intercourse during the past 3 months and used a condom during the last sexual intercourse (61.1% National);**
- **11% (n=53) had ever been forced to have sexual intercourse when they did not want to (7.4% National);**
- **20.4% (n=64) used birth control pills to prevent pregnancy during their last sexual intercourse (19.8% National);**
- **7.6% (n=39) had been pregnant or gotten someone pregnant 1 or more time (NA National);**
- **25.8% (n=133) described themselves as slightly or very overweight (27.7% National);**
- **13% (n=67) went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days (10.6% National);**
- **4.6% (n=24) took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days (5.9% National);**
- **5.3% (n=27) vomited or took laxatives to lose weight or keep from gaining weight during the past 30 days (4% National);**
- **54% (n=278) exercised to strengthen or tone their muscles on 3 or more of the past 7 days (NA National);**
- **37.3% (n=193) watched three hours or more of TV or played video games per day on an average school day (NA National);**

- **52% (n=269) played on 1 or more sports teams during the past 12 months (58.3% National);**
- **90% (n=457) had a personal web page, blog, face book, or other technologies currently on the web (NA National);**
- **36.3% (n=187) used technology to communicate for three hours or more on an average school day (NA National);**
- **32.9% (n=169) received threatening or intimidating messages online or through cell phones (NA National);**
- **29% (n=149) sent threatening or intimidating messages online or through cell phones (NA National);**
- **46.9% (n=239) sent sexually inappropriate pictures or messages using a cell phone or computer (NA National);**
- **41.2% (n=210) felt that their parents would be nervous if they knew what they did on the Internet or via cell phone (NA National);**
- **32.1% (n=165) reported texting while driving in the past 30 days (NA National);**
- **89.8% (n=459) felt very informed about safety and using the internet (NA National);**
- **44.9% (n=230) reported having been bullied (NA National);**
- **57.9% (n=297) were a bystander while someone else was being bullied (NA National);**
- **37.7% (n=191) bullied someone (NA National);**
- **8.8% (n=45) were bullied daily or several times a day (NA National);**
- **25.4% (n=129) reported to no one that they were being bullied (NA National);**
- **8.1% (n=41) missed school because of bullying (NA National);**
- **94.7% (n=484) indicated that their parents would feel that it would be wrong or very wrong for them to break the law (NA National);**
- **85.9% (n=437) reported that there are many chances to get involved in school activities outside of class (NA National);**

- 46.7% (n=237) reported that the school would let them or their parents know if they have done something well (NA National);
- 84% (n=426) reported that there are adults in their life other than their parents that encourage them to do their best (NA National);
- 47.3% (n=241) volunteer in their community (NA National);
- 85.8% (n=436) reported that one of their parents knows where they are and who they are with when they are not at home (NA National);
- 84.4% (n=421) indicated that their parents would know if they came home on time (NA National).

### **High School Data by Gender**

Like with the middle school data, gender differences between high school males and females were not alarming. All high school data by gender can be found under Tab 4.

### **High School Conclusions**

1. High school students engaging in high risk behaviors with respect to tobacco, alcohol, marijuana, inhalants and heroin use is of major concern.
2. Sexual behaviors among middle school students is high.
3. Bullying behaviors are a major area of concern.
4. High school students perceive their parents to establishing clear rules regarding substance use.

**CORE MEASURES 2011**

	<b>Alcohol</b>	<b>Tobacco</b>	<b>Marijuana</b>
<b>30 Day Use</b>	MS 29.5%(n=95) HS 44.7% (n=223)	MS 16.2% (N=52) HS 22.1%(n=115)	MS 14.6% (n=47) HS 27.7% (n=143)
<b>Age of Onset</b>	MS 10.9 (n=173) HS 13.1 (n=386)	MS 11.3 (n=89) HS 13 (n=218)	MS 11.8 (n=75) HS 13.1(n=255)
<b>Perception of Harm</b>	MS 62.4% (n=201) HS 62.3% (n=324)	MS 86.1% (n=278) HS 90.2% (n=471)	MS 75.4% (n=242) HS 58% (n=302)
<b>Perception of Parental Disapproval</b>	MS 76.6% (n=246) HS 64.8%(n=378)	MS 93.2% (n=300) HS 85.6% (n=446)	MS 91.3% (n=293) HS 85.4% (n=444)

**Recommendations for Middle and High School**

- 1. Implement comprehensive health education classes and programs in the elementary, middle and high schools.**
- 2. Share the YRBS results with the health department, social service agencies and community coalitions/groups and engage/challenge these groups to help reduce the frequency of youth risk behaviors.**

- 3. Conduct an school and community environmental analysis to determine ease of access to alcohol and other drugs.**
- 4. Conduct parenting workshops/programs/seminars regarding youth risk behavior and their role in prevention.**
- 5. Conduct school and community workshop/programs/seminars regarding bullying behaviors.**
- 6. Continue to conduct the YRBS every other year in order to procure trend data regarding youth risk behaviors.**