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### 2013 Boulder County Survey Process and Results Report

The Healthy Kids Colorado Survey grew out of the Youth Risk Behavior Survey (YRBS), which was developed by the Centers for Disease Control and Prevention (CDC) to monitor health-risk behaviors among youth. Since 1991, state and local health departments and education agencies have used the YRBS to support the shared goal of healthy, educated youth who become healthy, successful adults. Boulder County Public Health (BCPH), Boulder County Healthy Youth Alliance (HYA), Boulder Valley School District (BVSD), and St. Vrain Valley School District (SVVSD) have collaborated to implement the YRBS biennially since 2001. Boulder County YRBS procedures based on CDC protocol yield local rates of health-risk and health-promoting behaviors, as well as trends over time. Survey results inform the development of effective school and community programs to reduce youth risk behaviors and encourage health, safety, and academic achievement.

### **Changes to the 2013 Process**

In 2013, to strengthen the YRBS in Colorado, the Colorado Departments of Education, Public Health and Environment, and Health and Human Services undertook and funded a statewide, unified survey initiative – the Healthy Kids Colorado Survey (HKCS). Boulder County partnered with this state coalition in its inaugural HKCS administration, which entailed modifying the Boulder County YRBS process. Previously, Boulder County staff implemented the YRBS in-house. In 2013, the state and its contractors conducted the highly technical analytic and statistical work. Beyond institutional role shifts, complexity of the Boulder County process increased, as sampling, instruments, proctoring, analysis, and reporting were adjusted to coincide with the state process.

### **Sample Selection**

State sampling methods called for fewer Boulder County schools to participate in 2013 than in the past with local methods. In SVVSD, rather than surveying 9 high schools as in the past, 4 high schools were surveyed in 2013. Consistent with previous participation, SVVSD excluded middle schools. In BVSD, the 2013 state sample included 4 high schools and 3 middle schools; however, by district request, all 9 high schools and all 15 middle schools in BVSD were surveyed in 2013. All surveyed schools chose a day and class period in October or November 2013 for administration. At each school, classrooms were randomly selected to be surveyed. This yielded 62 SVVSD grade 9-12 classrooms, 79 BVSD grade 9-12 classrooms, and 38 BVSD grade 7-8 classrooms. Letters were mailed to the parents of each student in the selected classrooms to inform them of the survey; student selection; and how to opt out of the survey via phone, mail, or online. In all, 2,992 high school and 902 middle schools, and 91.6% in BVSD middle schools. Thus, in Boulder County, fewer schools were sampled, different sampling frames were used, and more students completed surveys than previously. The 2013 results are still representative at the district and county levels, and the smaller state BVSD sample was compared to the full BVSD sample to guide future sampling.

#### **Survey Instruments**

The 2013 HKCS survey booklet integrated questions and response options, a change from the previous survey with a separate response sheet. As in the past, 2013 instruments were designed to be completed within a standard 45-minute class period and were available in English and Spanish. The Boulder County YRBS historically consisted of one high school instrument and one middle school instrument. The 2013 unified state process used 2 different instruments to collect high school data; within each high school classroom, students randomly received one or the other. The rationale for using two instruments was to collect responses on more questions without increasing the number of students taking the survey or the number of questions included on each survey. Boulder County high school Instrument A had 121 questions; Instrument B had 117 questions, including longstanding local questions not included on state instruments. The 2013 middle school survey was expanded to include all questions previously asked in Boulder County, as well as new statewide questions - 71 questions in all. Consequently, the full <u>2013 results</u> include 97 new high school data tables and 41 new middle school data tables.

#### **In-classroom Survey Administration**

Students were surveyed during regular class time. Survey procedures were designed to protect student privacy by enabling anonymous and voluntary participation. In the past, volunteers proctored the Boulder County YRBS, with

teachers asked only to address disruptions and to verify that opted-out students did not take the survey. In contrast, 2013 state protocol called for teachers to proctor the survey, eliminating the need to recruit, train, and coordinate volunteers. Volunteer proctors had received in-person training and written instructions; in 2013, teachers received printed instructions. Boulder County students were surveyed 6 to 8 weeks after the disastrous September 2013 floods. Many survey questions probe behavior in the previous 30 days, in which many youth were adjusting to a new reality.

#### **Data Analysis**

Using statistical software, the state calculated prevalence estimates and 95% confidence intervals for each behavior. High response rates enabled the data to be weighted by grade, gender, and race/ethnicity so that results were representative of the entire population from which the sample was selected, not just surveyed students. While 2013 analysis mirrored CDC and previous local analysis to the greatest extent possible, analysis was slightly modified, especially when historic methods would have excluded excessive numbers of surveys or responses. For instance, unlike in past years, in 2013, missing necessary variables (i.e. grade, gender, race/ethnicity) were replaced with substituted values. Additionally, scannable answer sheets with graphics or patterns were previously excluded, a step eliminated by the state's 2013 integrated question-and-answer booklets.

### **2013 Survey Results Comparability**

The comparison to results within the same administration year, to previous years, and to other geographies, are intended to be general observations only. Due to differences in survey methodology, statistically significant differences cannot be inferred. Middle school and high school results are not comparable because question scope, wording, and response options vary. Boulder County middle school results include grades 7 and 8 only, so they are not comparable to Colorado or national middle school results, which include grades 6, 7, and 8. While effort was made to align with CDC protocol and past Boulder County processes, the shifts in roles, methodology, and environment may have impacted 2013 results, which differ from previous results in 3 ways:

- 1) There were some large and unexpected changes in prevalence rates. In general, risk behavior prevalence tended to be lower than in the past, yet preventive behavior prevalence tended to be higher than in the past.
- 2) Compared to previous years, 2013 confidence intervals were broader in high school results and narrower in middle school results.
- Using confidence intervals to identify statistically significant differences by subpopulation and over time, in 2013, there were fewer differences between subpopulations and from one year to the next in high school and more in middle school.

In sum, 2013 data may not be directly comparable to earlier data, may present anomalies, and may offer new baselines. That said, the unified survey increases consistency and comparability of our local results with those across Colorado and the United States. (See <u>Healthy Kids Colorado</u> for Colorado results and methods and <u>CDC Adolescent</u> and <u>School Health Youth Risk Behavior Surveillance System [YRBSS]</u>) for national results and methods.) The new unified system provides more precise information by including roughly 300 schools and 40,000 students in the statewide sample. This quantity of data yields results that can represent Colorado, its health statistics regions, individual counties, and school districts. Because methods are consistent and data are collected statewide, we can better compare our district and county high school students to their regional and statewide peers within any one administration year to see whether Boulder County's situation improved, worsened, or remained the same relative to other places. Further, state capacity to analyze, interpret, and share these results is greater than local capacity. The state partnership is a means to more sophisticated systems for accessing and disseminating results, which increases the likelihood of positive impact on youth. In 2013, as always, the goal was integrity and innovation in the process and the product at the local and state levels. The results, snapshot estimates of population-level behavior, can be used to make general observations and as soft guidance, supplemented with other sources of information and expertise.

### **2013 Boulder County Results**

Results from the 2013 Boulder County survey for each school district, as well as results in a combined Boulder County format for high schools, are posted at <u>www.BoulderCountyHKCS.org</u>. Results are presented by grade, gender, and race/ethnicity (i.e. Hispanic, white non-Hispanic, or other non-Hispanic).

Boulder Valley Middle Schools Demographics		
	%	
Gender		
Female	49.9	
Male	50.1	
Grade		
7 <sup>th</sup>	55.1	
8 <sup>th</sup>	45.0	
Race/Ethnicity		
White non-Hispanic	77.2	
Hispanic	15.3	
Other non-Hispanic	7.5	

This report features overall totals, and the narrative highlights some statistically significant differences by subcategory. Statistically significant differences are prevalence rates with non-overlapping confidence intervals within a sub-category, (i.e., gender and race/ethnicity). The term "higher" refers to these statistically significant differences. The behaviors presented in this report do not include all statistically significant differences or all of the survey results. What looks like a difference on a graph may not be statistically significant, so please refer to the complete set of tables at <u>www.BoulderCountyHKCS.org</u> to identify and confirm truly significant differences.

# Safety

Overall, 27.8% of students surveyed never or rarely wore a bicycle helmet. The prevalence rate was higher for Hispanic students (52.9%) and other non-Hispanic students (37.4%) than for white non-Hispanic students (20.7%). Overall, the prevalence rate for never or rarely wearing a seat belt while riding in a car was 2.2%. Male students had a higher rate than female students (3.0% and 1.4%, respectively). Hispanic students had a higher rate (3.7%) than white non-Hispanic students (1.4%). One in six students (16.0%) rode in a car driven by someone who had been drinking alcohol. Hispanic students had a higher rate than white non-Hispanic students (20.8% and 14.8%, respectively).



# **Bullying and Violence**

Nearly one in four students (24.0%) reported being electronically bullied. Female students had a higher rate (33.4%) than male students (14.9%). Hispanic students had a higher rate (27.3%) than both white non-Hispanic students (22.4%) and other non-Hispanic students (18.7%). Just over two in five students (42.9%) reported being bullied on school property. The prevalence rate was higher for female students (46.3%) than male students (39.8%). White non-Hispanic students (44.9%) had a higher prevalence rate than both Hispanic students (36.4%) and other non-Hispanic students (28.4%).



Overall, the prevalence rate for students who had ever been in a physical fight was 30.1%. Male students had a higher rate than female students (42.9% and 16.7%, respectively). Hispanic students had a higher rate (40.8%) than both white non-Hispanic students (27.3%) and other non-Hispanic students (25.4%). Nearly three in ten students (29.8%) surveyed reported having ever carried a weapon. Male students had a higher prevalence than female students (44.1% and 14.9%, respectively). White non-Hispanic students (28.0%) had a higher rate than other non-Hispanic students (20.6%), and Hispanic students (38.7%) had a higher rate than both.



## **Mental Health and Suicide**

One in six students (16.4%) surveyed reported they felt sad or hopeless almost every day for 2 weeks or more in a row, and that they stopped doing some usual activities during the 12 months prior to the survey. The rate was higher for female students (21.4%) than male students (11.5%). White non-Hispanic students (14.9%) had a higher rate than other non-Hispanic students (10.5%), and Hispanic students (23.1%) had a higher rate than both.

Overall, 14.7% of students surveyed reported they had considered attempting suicide. In the 12 months prior to the survey, 1 in 9 students (11.0%) reported they had made a plan about how they would attempt suicide, and 4.1% reported they had



attempted suicide. The rate was higher for female students (6.0%) than male students (2.1%). The prevalence rate was higher for Hispanic students than white non-Hispanic students and other non-Hispanic students for considered suicide, planned suicide, and attempted suicide.



# **Substance Use**

### **Cigarette Use**

Overall, 0.9% of students had smoked a whole cigarette for the first time before age 11; 6.0% of students reported they had tried cigarette smoking, even 1 or 2 puffs. Male students (7.1%) had a higher rate than female students (4.9%). Hispanic students (14.3%) and other non-Hispanics students (9.6%) had a higher rate than white non-Hispanic students (3.6%). Students reported that, in the 30 days prior to the survey (current use), 1.8% had



smoked cigarettes. Current use for cigarettes was higher for Hispanic students (5.3%) than white non-Hispanic students (0.9%).

Over nine out of ten students (93.5%) thought it was a moderate/great risk to smoke one or more packs of cigarettes a day. Female students (95.1%) had a higher rate than male students (91.9%). White non-Hispanic students (95.7%) had a higher rate than Hispanic students (83.2%), and other non-Hispanic students (99.6%) had a higher rate than both white non-Hispanic and Hispanic students. Overall, 97.7% of students thought their parents felt it was wrong/very wrong if they smoked cigarettes. White non-Hispanic students (98.5%) had a higher rate than Hispanic students (95.1%).

Overall, 23.1% of students surveyed felt it would be sort of easy/very easy to get cigarettes if they wanted. Male students had a higher prevalence rate than female students (28.3% and 17.7%, respectively). White non-Hispanic students (21.2%) had a higher rate than other non-Hispanic students (13.5%), and Hispanic students (38.7%) had a higher rate than both white non-Hispanic and Hispanic students.

### **Alcohol Use**

Overall, 7.3% of students had their first drink of alcohol (other than a few sips) for the first time before age 11. Male students (9.8%) had a higher prevalence rate than female students (4.6%). Hispanic students had a higher rate than white non-Hispanic students (16.0% and 5.4%, respectively). Nearly one in six students (17.5%) reported they had ever had a drink of alcohol, other than a few sips. Male students had a higher rate than female students (19.1% and 15.8%, respectively). Hispanic students (36.1%) had a higher rate than white non-Hispanic students (13.4%) and other non-



Hispanic students (9.6%). Students reported that, in the 30 days prior to the survey (current use), 5.0% had at least 1 drink of alcohol. Current use of alcohol was higher for Hispanic students (13.0%) than white non-Hispanic students (3.1%).

Overall, 95.5% of students surveyed thought it was a moderate/great risk to have 1 or 2 drinks nearly every day. Female students had a higher prevalence rate (97.5%) than male students (93.6%). Other non-Hispanic students (97.5%) and white non-Hispanic students (96.2%) had a higher rate than Hispanic students (93.4%). Nine out of ten students (91.6%) surveyed thought it was wrong/very wrong for someone their age to drink alcohol regularly (once or twice a month). Female students (94.0%) had a higher rate than male students (89.3%). White non-Hispanic students (93.9%) had a higher rate than Hispanic students (82.5%), and other non-Hispanic students (97.3%) had a higher rate than both white non-Hispanic and Hispanic students. Over nine out of ten students (95.0%) thought their parents felt it was wrong/very wrong if they drank alcohol once or twice a month. Female students (96.2%) had a higher rate than male students (93.8%). White non-Hispanics students (96.7%) and other non-Hispanic students (94.8%) had a higher prevalence rate than Hispanic students (89.5%).

Nearly two in five students (38.6%) felt it would be sort of easy/very easy to get alcohol if they wanted. Male students had a higher prevalence rate (44.5%) than female students (32.6%). White non-Hispanic students (37.4%) had a higher rate than other non-Hispanic students (24.1%), and Hispanic students (50.1%) had a higher rate than both white non-Hispanic and Hispanic students.

### Marijuana Use

Overall, 2.0% of students had tried marijuana for the first time before age 11. Hispanic students (7.2%) had a higher rate than white non-Hispanic students (0.7%) for trying marijuana before age 11. One in 13 students surveyed (7.5%) had ever used marijuana. The rate for male students (9.2%) was higher than for female students (5.8%) and the rate for Hispanic students (16.0%) was higher than for white non-Hispanic students (5.2%). Students reported that, in the 30 days prior to the survey (current use), 5.9% had used marijuana. Current marijuana use was



higher for male students (7.4%) than for female students (4.4%). Hispanic students (14.6%) had a higher rate for current marijuana use than white non-Hispanic students (3.6%).

Eight out of ten students (81.6%) thought people who used marijuana regularly had a moderate/great risk of harming themselves. Female students had a higher prevalence rate (87.5%) than male students (75.7%). White non-Hispanic students (84.6%) had a higher rate than Hispanic students (67.2%), and other non-Hispanic students (91.3%) had a higher rate than both white non-Hispanic and Hispanic students. Overall, 88.0% of students thought it was wrong/very wrong for someone their age to use marijuana. Female students (92.2%) had a higher rate than male students (83.7%). White non-Hispanic students (90.8%) had a higher rate than Hispanic students (76.3%), and other non-Hispanic students (98.0%) had a higher rate than both white non-Hispanic students. Overall, 96.2% of students surveyed thought their parents felt it was wrong/very wrong if they used marijuana. White non-Hispanic students (96.9%) had a higher rate than Hispanic students (93.1%), and other non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than Hispanic students (93.1%), and other non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than Hispanic students (93.1%), and other non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than both white non-Hispanic students (98.9%) had a higher rate than Hispanic students.

One out of five students surveyed (20.4%) felt it would be sort of/very easy to get marijuana if they wanted. Male students had a higher prevalence rate (23.5%) than female students (17.3%). White non-Hispanic students (18.6%) had a higher rate than other non-Hispanic students (4.6%), and Hispanic students (33.1%) had a higher rate than both white non-Hispanic and Hispanic students.

### **Other Drugs**

The overall prevalence rate for students who had ever used inhalants was 3.5%. Inhalants include sniffing glue, breathing the contents of aerosol spray cans, or inhaling any paints or sprays to get high. Male students (4.5%) had a higher rate than female students (2.4%), and Hispanic students (8.1%) had a higher rate than white non-Hispanic students (2.6%). Overall, 2.9% of students surveyed had taken a prescription drug (e.g., OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription 1 or more times during their lives. Hispanic students (4.6%) had a higher rate than white non-Hispanic students (2.6%).



## Weight

One in five students surveyed (19.4%) described themselves as slightly or very overweight. Hispanic students (23.8%) had a higher rate than white non-Hispanic students (18.1%). Overall, 28.3% of students surveyed were trying to lose weight. Female students (35.5%) had a higher rate than male students (21.0%). Hispanic students (32.8%) had a higher rate than white non-Hispanic students (27.1%) and other non-Hispanic students (23.7%).



### **Nutrition**

Nearly two in three students (60.4%) ate fruit one or more times per day in the seven days prior to the survey. White non-Hispanic students (64.2%) had a higher rate than other non-Hispanic students (55.4%) and Hispanic students (52.0%). Overall, 58.4% of students surveyed reported they ate vegetables 1 or more times per day in the 7 days prior to the survey. Male students (62.2%) had a higher rate than female students (54.7%). White non-Hispanic students (60.5%) and other non-Hispanic students (57.3%) had a higher rate than Hispanic students (46.2%).

Nearly one in eight students (12.9%) reported drinking a can, bottle, or glass of soda or pop one or more times per day during the seven days prior to the survey. Male students had a higher rate than female students (18.6% and 7.1%, respectively). Hispanic students (24.5%) had a higher rate than white non-Hispanics students (10.3%) and other non-Hispanic students (8.5%).

Overall, 64.6% of students surveyed reported they ate breakfast in all of the 7 days prior to the survey. Male students had a higher rate than female students (69.3% and 59.9%, respectively). White non-Hispanic students (68.5%) and other non-Hispanic students (67.3%) had a higher rate than Hispanic students (50.5%).





## **Physical Activity and Screen Time**

Overall, 44.8% of students surveyed participated in vigorous physical exercise 60 minutes or more on all 7 of the 7 days prior to the survey. Male students (51.0%) had a higher rate than female students (38.6%). White non-Hispanic students (47.0%) had a higher rate than other non-Hispanic students (39.3%) and Hispanic students (36.1%). Nearly 3 in 4 students (74.1%) were physically active for at least 60 minutes per day on 5 or more of the 7 days prior to the survey. Male students (77.3%) had a higher rate than female students (70.8%). Other non-Hispanic students (69.5%) had a higher rate than other Hispanic students (59.4%), and white non-Hispanic students (78.4%) had a higher rate than both other non-Hispanic and Hispanic students.

The prevalence rate for students who had screen time (i.e., watched TV and/or played video or computer games or used a computer for something that was not school work) for 3 or more hours per day on an average school day was 33.1%. Male students (36.0%) had a higher rate than female students (30.2%). Other non-Hispanic students (43.4%) had a higher rate than white non-Hispanic students (30.5%).



# School Life

Nearly seven in ten students surveyed (69.7%) reported they had participated in extracurricular activities (e.g., sports, band, drama, clubs, or student government). Female students (74.8%) had a higher prevalence rate than male students (64.5%). Overall, 96.8% of students thought it was important to go to college. Male students (98.2%) had a higher rate than female students (95.5%). White non-Hispanic students (98.1%) had a higher rate than Hispanic students (93.1%) and other non-Hispanic students (92.8%).

