Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2017 Cuyahoga County Youth Risk Behavior Survey: Behaviors that Contribute to Unintentional Injuries

Introduction

The Prevention Research Center for Healthy Neighborhoods (PRCHN) at Case Western Reserve University has administered the Youth Risk Behavior Survey (YRBS) in school districts throughout Cuyahoga County since 2000. The YRBS is a cross-sectional tool developed by the Centers for Disease Control and Prevention (CDC) to track adolescent risk behavior over time. In spring of 2017, the PRCHN conducted the YRBS among 9th through 12th grade students in Cuyahoga County high schools. A more detailed description of the methodology is available at our website, www.prchn.org/YRBSDataCollectionAnalysis.aspx.

This brief report presents results from the 2017 Cuyahoga County High School Youth Risk Behavior Survey, with a particular focus on Behaviors that Contribute to Unintentional Injuries. In this brief report, we present:

- Overall Prevalence
- Regional Prevalence
- Demographic Prevalence
- Trend Report

Data for similar behaviors can be found at our website, www.prchn.org/yrbs_home.aspx.

Behaviors that Contribute to Unintentional Injuries

Motor vehicle accidents are the leading cause of death for children and youth ages 5 to 24.[i] The use of seat belts and child safety restraints greatly reduces the chance of fatalities and serious injuries in motor vehicle crashes. The 2017 YRBS also asked students how often they had worn a bicycle helmet when riding a bike. Head injury is the leading cause of death in bicycle crashes and use of bicycle helmets is the single most effective way of reducing head injuries and fatalities.[ii] [iii]

Teenagers are more likely than their older counterparts to underestimate the risk in which certain behaviors may place them.[iv] Teens are also more likely to be distracted drivers. Nearly 40% of teens report that they have been in a car when the driver used a cell phone to text or email and ultimately, text messaging creates a crash risk 23 times higher than driving undistracted.[v]

Overall Prevalence

The following table summarizes behaviors that contribute to unintentional injuries among the 13,907 high school students who completed the 2017 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all dichotomous variables.

Risk Behavior	% (95% Confidence Interval)
Rarely or never wore a bicycle helmet (Among students who had ridden a bicycle during the 12 months before the survey.)	86.8 (85.8-87.8)
Rarely or never wore a seatbelt (When riding in a car driven by someone else.)	11.1 (10.3-12.0)
Rode with a driver who had been drinking alcohol (During the 30 days before the survey.)	21.7 (20.8-22.7)
Drove a car or other vehicle when student had been drinking alcohol (During the 30 days before the survey.)	7.9 (7.1-8.8)
Texted or e-mailed while driving (Among students who had driven a vehicle during the 30 days before the survey.)	37.5 (35.7-39.3)

Regional Prevalence

The overall response rate for inner and outer ring east (57% and 52%, respectively) **did not** reach the standard of 60%, which allows for the data to be considered representative of all students, even those that did not complete the survey. Since the overall response rate was close to the standard of 60%, we have included weighted estimates for these regions. A weight was applied to each record to adjust for student non response and the distribution of students by grade, gender, race/ethnicity, and geographic region within Cuyahoga County. The stability of the data should be considered, given the lower than required overall response rate, and results should be interpreted with caution. In addition, the overall response rate for outer ring west was insufficient for analysis.

Risk Behavior	CMSD-East % (95% CI)	CMSD-West % (95% CI)	Inner Ring-East % (95% CI)	Inner Ring-West % (95% CI)	Outer Ring-East % (95% CI)	Outer Ring-West % (95% CI)
Rarely or never wore a bicycle helmet (Among students who had ridden a bicycle during the 12 months before the survey.)	95.2 (94.1-96.1)	94.2 (93.0-95.1)	88.8 (86.6-90.7)	89.3 (85.3-92.3)	70.2 (67.5-72.7)	n/a
Rarely or never wore a seatbelt (When riding in a car driven by someone else.)	20.5 (18.7-22.4)	18.4 (16.5-20.5)	15.0 (12.5-17.8)	8.5 (7.0-10.2)	8.1 (6.8-9.6)	n/a
Rode with a driver who had been drinking alcohol (During the 30 days before the survey.)	29.8 (27.8-31.8)	26.5 (24.4-28.7)	22.9 (20.6-25.3)	19.8 (17.1-22.8)	17.4 (15.4-19.7)	n/a
Drove a car or other vehicle when student had been drinking alcohol (Among students who had driven a vehicle during the 30 days before the survey.)	9.8 (8.0-12.0)	10.7 (8.9-12.8)	9.3 (7.5-11.4)	9.2 (6.9-12.2)	4.1 (2.6-6.4)	n/a
Texted or e-mailed while driving (Among students who had driven a vehicle during the 30 days before the survey.)	25.1 (22.1-28.4)	22.8 (20.2-25.7)	32.9 (28.1-38.2)	37.1 (33.6-40.7)	42.4 (37.8-47.1)	n/a

Demographic Prevalence

The tables below allow for further comparisons of violence related behaviors between demographic groups. Data are presented by gender, race/ethnicity, and grade level. A statistically significant difference exists between groups if the 95% confidence intervals do not overlap.

Rarely or never wore a bicycle helmet			
Category	**%**	**CI**	
Gender			
Female	85.1	83.7	- 86.5
Male	88.1	86.8	- 89.4
Race/Ethnicity			
White	81.1	79.5	- 82.6
Black	94.9	93.7	- 95.9
Hispanic	93.4	91.7	- 94.8
Other/Multiple	76.8	70.3	- 82.2
Grade			
9th	84.2	81.3	- 86.7
10th	88.4	86.4	- 90.1
11th	87.2	85.1	- 89.1
12th	87.9	86.0	- 89.5
Total	**86.8**	**85.8**	**- 87.8**

Rarely or never wore a seatbelt			
Category	**%**	**CI**	
Gender			
Female	9.4	8.5	- 10.4
Male	12.6	11.5	- 13.7
Race/Ethnicity			
White	5.2	4.6	- 5.8
Black	17.5	15.9	- 19.1
Hispanic	17.1	14.8	- 19.5
Other/Multiple	15.5	12.4	- 19.2
Grade			
9th	11.7	10.4	- 13.1
10th	10.5	9.1	- 12.2
11th	10.7	9.1	- 12.4
12th	11.1	9.0	- 13.6
Total	**11.1**	**10.3**	**- 12.0**

Rode with a driver who had been drinking alcohol			
Category	**%**	**CI**	
Gender			
Female	23.4	22.1	- 24.7
Male	20.1	19.0	- 21.2
Race/Ethnicity			
White	17.8	16.7	- 19.0
Black	25.5	24.0	- 27.1
Hispanic	29.4	26.7	- 32.2
Other/Multiple	26.0	22.1	- 30.2
Grade			
9th	21.2	19.7	- 22.7
10th	20.5	18.9	- 22.2
11th	24.1	22.3	- 26.1
12th	20.7	18.7	- 22.9
Total	**21.7**	**20.8**	**- 22.7**

Drove a car or other vehicle when student had been drinking alcohol			
Category	**%**	**CI**	
Gender			
Female	6.6	5.5	- 7.8
Male	9.0	7.8	- 10.2
Race/Ethnicity			
White	6.6	5.4	- 7.9
Black	8.7	7.5	- 10.0
Hispanic	13.7	11.3	- 16.5
Other/Multiple	17.0	13.2	- 21.6
Grade			
9th	6.0	4.6	- 7.8
10th	5.4	4.0	- 7.3
11th	7.6	6.1	- 9.4
12th	11.1	9.1	- 13.4
Total	**7.9**	**7.1**	**- 8.8**

Texted or e-mailed while driving			
Category	**%**	**CI**	
Gender			
Female	38.1	35.7	- 40.7
Male	36.9	34.6	- 39.3
Race/Ethnicity			
White	43.3	40.9	- 45.6
Black	29.3	26.3	- 32.6
Hispanic	32.0	27.9	- 36.5
Other/Multiple	42.7	37.8	- 47.8
Grade			
9th	13.2	11.6	- 15.1
10th	24.3	21.4	- 27.4
11th	47.6	44.8	- 50.4
12th	54.4	50.9	- 57.8
Total	**37.5**	**35.7**	**- 39.3**

Cuyahoga County Trend Data

The following table presents the prevalence of behaviors that contribute to unintentional injuries among Cuyahoga County high school students in 2009, 2011, 2013, 2015, and 2017. The prevalence for each year is given (when available), with 95% confidence intervals below.

Cuyahoga County, 2009	Cuyahoga County, 2011	Cuyahoga County, 2013	Cuyahoga County, 2015	Cuyahoga County, 2017
Rarely or never wore a bicycle helmet (Among students who had ridden a bicycle during the 12 months before the survey.)				
83.8 (80.7-86.8)	n/a	86.2 (85.1-87.3)	83.7 (81.1-86.1)	86.8 (85.8-87.8)
Rarely or never wore a seatbelt (When riding in a car driven by someone else.)				
13.0 (11.5-14.5)	14.4 (13.6-15.2)	11.8 (11.0-12.5)	10.4 (9.2-11.8)	11.1 (10.3-12.0)
Rode with a driver who had been drinking alcohol (During the 30 days before the survey.)				
26.7 (25.2-28.2)	21.2 (20.1-22.3)	22.5 (21.4-23.6)	21.3 (20.1-22.5)	21.7 (20.8-22.7)
Drove a car or other vehicle when student had been drinking alcohol (Among students who had driven a vehicle during the 30 days before the survey.)				
n/a	n/a	8.2 (7.2-9.2)	8.4 (7.4-9.5)	7.9 (7.1-8.8)
Texted or e-mailed while driving (Among students who had driven a vehicle during the 30 days before the survey.)				
n/a	n/a	43.5 (41.0-46.0)	37.0 (34.1-40.0)	37.5 (35.7-39.3)

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[i] Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2012.
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