



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

# 2016 Cuyahoga County Youth Risk Behavior Survey: Unintentional Injuries

## Introduction

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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 2016, the PRCHN conducted the YRBS among 7<sup>th</sup> and 8<sup>th</sup> grade students in Cuyahoga County middle schools. A more detailed description of the methodology is available at our website, <http://prchn.org/yrbs.aspx>.

This brief report presents results from the 2016 Cuyahoga County Middle School Youth Risk Behavior Survey, with a particular focus on behaviors that contribute to Unintentional Injury. In this brief report, we present:

- [Overall Prevalence](#)
- [Regional Prevalence](#)
- [Demographic Prevalence](#)
- [Trend Report](#)

Data for similar behaviors can be found at our website, <http://prchn.org/yrbs.aspx>.

## Behaviors that Contribute to Unintentional Injuries

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Motor vehicle accidents are the leading cause of death for children and youth ages 5 to 24.<sup>i</sup> The use of seat belts and child safety restraints greatly reduces the chance of fatalities and serious injuries in motor vehicle crashes. The 2016 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.<sup>ii iii</sup>

Teenagers are more likely than their older counterparts to underestimate the risk in which certain behaviors may place them.<sup>iv</sup> 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.<sup>v</sup>

## Overall Prevalence

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The following table summarizes behaviors that contribute to unintentional injuries among the 13,261 middle school students who completed the 2016 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all variables.

Risk Behavior	% (95% Confidence Interval)
Rarely or never wore a bicycle helmet (Among students who ride a bicycle).	72.4 (71.9-72.9)
Rarely or never wore a seatbelt (When riding in a car driven by someone else.)	6.8 (6.4-7.2)

## Regional Prevalence

The table below represents behaviors that contribute to unintentional injuries by the six regions of Cuyahoga County. This division was conducted to provide a geographic representation of the prevalence of different risk behaviors in Cuyahoga County. In 2014, we were able to weight to 5 of 6 regions in Cuyahoga County. The column under Outer Ring-West does not include data because school participation within this region was insufficient to permit weighting.

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 ride a bicycle.)	93.1% (91.1-94.6)	89.7% (87.8-91.4)	79.0% (77.1-80.8)	78.3% (77.7-78.9)	46.0% (44.3-47.6)	N/A
Rarely or never wore a seatbelt (When riding in a car driven by someone else.)	16.7% (14.7-18.9)	12.5% (10.7-14.7)	9.5% (9.1-9.9)	4.9% (4.7-5.1)	2.8% (2.3-3.5)	N/A

## Demographic Prevalence

The tables below allow for further comparisons of behaviors that contribute to unintentional injuries 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 seatbelt		
Category	%	CI
<b>Gender</b>		
Female	5.6	5.1 - 6.1
Male	7.9	7.4 - 8.4
<b>Race/Ethnicity</b>		
White	2.3	2.2 - 2.5
Black	12.1	11.3 - 12.9
Hispanic	13.6	11.6 - 16.0
Other/Multiple	9.4	8.4 - 10.4
<b>Grade</b>		
7th	6.5	5.9 - 7.1
8th	6.8	6.2 - 7.3
<b>Total</b>	<b>6.6</b>	<b>6.3 - 7.0</b>

Rarely or never wore a bike helmet		
Category	%	CI
<b>Gender</b>		
Female	70.2	69.6 - 70.8
Male	74.3	73.6 - 74.9
<b>Race/Ethnicity</b>		
White	60.8	60.3 - 61.3
Black	88.9	88.1 - 89.7
Hispanic	90.6	88.1 - 92.7
Other/Multiple	68.2	66.9 - 69.6
<b>Grade</b>		
7th	69.5	68.4 - 70.6
8th	74.9	73.8 - 76.0
<b>Total</b>	<b>72.2</b>	<b>71.7 - 72.7</b>

## Cuyahoga County Trend Data

The following table presents the prevalence of behaviors that contribute to unintentional injuries among Cuyahoga County middle school students in 2008, 2010, 2012, and 2014. The prevalence for each year is given (when available), with 95% confidence intervals below.<sup>1</sup>

Cuyahoga County, 2008	Cuyahoga County, 2010	Cuyahoga County, 2012	Cuyahoga County, 2014	Cuyahoga County, 2016
<b>Rarely or never wore a bicycle helmet</b> (Among students who ride a bicycle.)				
81.4% (80.0-82.7)	82.8% (81.5-84.2)	78.0% (76.9-79.1)	77.5% (76.5-78.4)	72.4% (71.9-72.9)
<b>Rarely or never wore a seatbelt</b> (When riding in a car driven by someone else.)				
12.7% (11.8-13.6)	12.3% (11.3-13.3)	10.3% (9.5-11.0)	10.4% (9.8-11.1)	6.8% (6.4-7.2)

<sup>1</sup> The YRBS questions with two or more data points over 2008-2016 are included. The new 2016 questions are not included for the purpose of demonstrating trends. For those questions not asked in 2016, refer to the PRCHN archives at [www.prchn.org/aspx](http://www.prchn.org/aspx) for more detailed information.

## Contact Information

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**Prepared by:**

Prevention Research Center for Healthy Neighborhoods  
Case Western Reserve University  
10900 Euclid Avenue  
Cleveland, Ohio 44106-7069  
www.prchn.org

**For more information please contact:**

Erika S. Trapl, PhD  
Assistant Professor, Department of Epidemiology and Biostatistics  
Associate Director, Prevention Research Center for Healthy Neighborhoods  
Case Western Reserve University  
Erika.trapl@case.edu  
216-368-0098

Jean L. Frank, MPH  
Manager of School-Based Surveillance and Evaluation  
Prevention Research Center for Healthy Neighborhoods  
Case Western Reserve University  
Jean.frank@case.edu  
216-368-5913

Audrey E. Kinsella, MPH  
Community & Evaluation Project Coordinator  
Prevention Research Center for Healthy Neighborhoods  
Case Western Reserve University  
Audrey.kinsella@case.edu  
216-368-5746

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

<sup>ii</sup> Centers for Disease Control and Prevention. 1995. Injury-control recommendations: Bicycle helmets. *Morbidity and Mortality Weekly Report*. 44(RR-1):1-17.

<sup>iii</sup> Sosin, D., Sacks, J., Webb, K. 1996. Pediatric head injuries and deaths from bicycling in the United States. *Pediatrics*. 98:868-870.

<sup>iv</sup> Centers for Disease Control and Prevention. *Teen Drivers: Fact Sheet*. Retrieved January 2013, from [www.cdc.gov](http://www.cdc.gov).

<sup>v</sup> Madden, M & Lenhart, A. (2009). *Teens and Distracted Driving*. Washington DC: Pew Research Center.