



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

# 2014 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 2014, 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 2014 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:

- [Healthy People 2020](#)
- [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 2014 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>

## Healthy People 2020

Where possible, the Cuyahoga County Youth Risk Behavior Survey (YRBS) data are compared to the Healthy People 2020 benchmarks.<sup>vi</sup> This allows us to consider Cuyahoga County's progress towards the 10-year national objectives aimed at improving the health of all Americans.

Healthy People 2020 Objectives	Cuyahoga County 2014
IVP-15: Increase the use of safety belts to 92.4%	89.6% of Cuyahoga County middle school students reported that they usually or always wore a seatbelt when riding in a car driven by someone else.

## Overall Prevalence

The following table summarizes behaviors that contribute to unintentional injuries among the 12,607 middle school students who completed the 2014 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all variables.

Risk Behavior	% (95% Confidence Interval)
<b>Rarely or never wore a seatbelt</b> (When riding in a car driven by someone else.)	10.4% (9.8-11.1)
<b>Rarely or never wore a bicycle helmet</b> (Among students who had ridden a bicycle during the 12 months before the survey.)	77.5% (76.5-78.4)
<b>Suffered severe blow to head</b> (During the 12 months before the survey.)	15.2% (14.5-15.9)

## 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)
<b>Rarely or never wore a seatbelt</b> (When riding in a car driven by someone else.)	19.0% (17.1-21.0)	15.2% (13.4-17.2)	15.3% (13.5-17.2)	9.2% (7.4-11.5)	6.6% (5.4-8.0)	N/A
<b>Rarely or never wore a bicycle helmet</b> (Among students who had ridden a bicycle during the 12 months before the survey.)	94.6% (92.9-95.9)	92.1% (90.5-93.4)	86.5% (85.0-87.8)	83.4% (81.2-85.4)	56.0% (51.6-60.2)	N/A
<b>Suffered severe blow to the head</b> (During the 12 months before the survey.)	12.2% (10.6-13.9)	15.2% (13.0-17.5)	15.0% (13.5-16.6)	18.3% (15.8-21.1)	15.5% (13.7-17.4)	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	9.1	8.3- 9.8
Male	11.5	10.7- 12.5
<b>Race/Ethnicity</b>		
White	5.5	4.9- 6.2
Black	17.0	15.8- 18.3
Hispanic	14.8	12.6- 17.1
Other/Multiple	11.8	9.4- 14.7
<b>Grade</b>		
7th	10.3	9.3- 11.4
8th	10.3	9.3- 11.3
<b>Total</b>	<b>10.4</b>	<b>9.8- 11.1</b>

Rarely or never wore a bicycle helmet		
Category	%	CI
<b>Gender</b>		
Female	76.9	75.6- 78.2
Male	77.8	76.6- 79.0
<b>Race/Ethnicity</b>		
White	65.9	64.4- 67.3
Black	93.9	93.1- 94.7
Hispanic	89.9	87.9- 91.7
Other/Multiple	71.3	68.3- 74.2
<b>Grade</b>		
7th	75.4	73.3- 77.3
8th	79.4	77.7- 81.0
<b>Total</b>	<b>77.5</b>	<b>76.5- 78.4</b>

Suffered severe blow to the head			
Category	%	CI	
<b>Gender</b>			
Female	14.3	13.3-	15.2
Male	16.0	15.0-	16.9
<b>Race/Ethnicity</b>			
White	15.8	14.8-	16.8
Black	14.2	13.1-	15.4
Hispanic	15.5	13.1-	18.2
Other/Multiple	18.8	15.7-	22.3
<b>Grade</b>			
7th	15.5	14.6-	16.5
8th	14.8	13.8-	15.8
<b>Total</b>	<b>15.2</b>	<b>14.5-</b>	<b>15.9</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
<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)
<b>Rarely or never wore a bicycle helmet</b> (Among students who had ridden a bicycle during the 12 months before the survey.)			
81.4% (80.0-82.7)	82.8% (81.5-84.2)	78.0% (76.9-79.1)	77.5% (76.5-78.4)

<sup>1</sup> The YRBS questions with two or more data points over 2008-2014 are included. The new 2014 questions are not included for the purpose of demonstrating trends. For those questions not asked in 2014, refer to the PRCHN archives at [www.prchn.org/asp](http://www.prchn.org/asp) for more detailed information.

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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.

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<sup>vi</sup> U.S. Department of Health and Human Services. *Injury and Violence Prevention*. Retrieved from 2020 Topics & Objectives:  
<http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=40>