



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

# 2014 Cuyahoga County Youth Risk Behavior Survey: Tobacco Use

## 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 Tobacco Use. This includes questions pertaining to tobacco use behavior as well as perceptions of tobacco use. 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>.

## Tobacco Use

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Using tobacco can have serious effects on long-term health. The use of cigarettes is the single leading preventable cause of death in the United States.<sup>i</sup> Almost 90% of adult smokers initiate use before or at age 18.<sup>ii</sup> Hookah smoking can lead to cardiovascular disease and cancer. Per a report from the World Health Organization (WHO), one hookah smoking session may be equivalent to smoking 100 cigarettes.<sup>iii</sup> Tobacco use in adolescence is associated with many other health risk behaviors, including higher-risk sexual behavior and use of alcohol or other drugs.<sup>iv</sup>

## Healthy People 2020

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Where possible, the Cuyahoga County Youth Risk Behavior Survey (YRBS) data are compared to the Healthy People 2020 benchmarks.<sup>v</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
TU-2.2: Reduce use of cigarettes by adolescents to no more than 16.0%.	3.3% of Cuyahoga County middle school students reported using cigarettes in the past 30 days.
TU-2.4: Reduce use of cigars by adolescents to no more than 8.0%	4.8% of Cuyahoga County middle school students reported using cigars in the past 30 days.*

\* The Cuyahoga County YRBS cigar use item includes product examples (such as Black & Milds, Swisher Sweets, and Phillies) which are not included in the national YRBS item. It is anticipated that the prevalence of current cigar use reported by Cuyahoga County middle school students is a more accurate representation of use because of this inclusion.

## Overall Prevalence

The following table summarizes tobacco use 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>Ever smoked cigarettes</b> (Smoked a cigarette, even one or two puffs, on at least 1 day during their life.)	11.9% (11.2-12.6)
<b>Smoked first tobacco product before age 11 years</b>	4.6% (4.2-5.0)
<b>Current cigarette use</b> (Smoked a cigarette on at least 1 day during the 30 days before the survey.)	3.3% (3.0-3.6)
<b>Current hookah use</b> (Smoked hookah at least 1 day during the 30 days before the survey.)	4.3% (3.9-4.8)
<b>Current cigar use</b> (Smoked a cigar, cigarillo, little cigar, or flavored cigar on at least 1 day during the 30 days before the survey.)	4.8% (4.4-5.2)
<b>Current e-cigarette use</b> (Smoked an e-cigarette at least 1 day during the 30 days before the survey.)	5.1% (4.7-5.6)

## Regional Prevalence

The table below represents tobacco use in 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>Ever smoked cigarettes</b> (Smoked a cigarette, even one or two puffs, on at least 1 day during their life.)	13.8% (11.6-16.4)	17.7% (15.8-19.8)	14.3% (12.7-16.0)	17.5% (15.4-19.9)	6.8% (5.4-8.4)	N/A
<b>Smoked first tobacco product before age 11 years</b>	7.6% (6.3-9.1)	7.2% (6.0-8.6)	6.0% (5.1-7.1)	4.8% (3.6-6.4)	2.4% (1.7-3.4)	N/A
<b>Current cigarette use</b> (Smoked a cigarette on at least 1 day during the 30 days before the survey.)	2.4% (1.6-3.5)	4.1% (3.1-5.2)	3.9% (3.2-4.7)	5.9% (4.9-7.1)	1.3% (0.7-2.4)	N/A
<b>Current hookah use</b> (Smoked hookah at least 1 day during the 30 days before the survey.)	3.4% (2.4-4.7)	6.2% (4.7-8.1)	3.3% (2.5-4.4)	7.6% (6.1-9.4)	2.3% (1.7-3.0)	N/A
<b>Current cigar use</b> (Smoked a cigar, cigarillo, little cigar, or flavored cigar on at least 1 day during the 30 days before the survey.)	10.8% (9.2-12.7)	7.0% (5.7-8.6)	6.5% (5.6-7.6)	3.9% (3.0-5.1)	2.3% (1.5-3.4)	N/A
<b>Current e-cigarette use</b> (Smoked an e-cigarette at least 1 day during the 30 days before the survey.)	5.6% (4.4-7.1)	5.2% (4.1-6.6)	6.0% (4.9-7.2)	7.2% (5.3-9.8)	2.4% (1.8-3.2)	N/A

## Demographic Prevalence

The tables below allow for further comparisons of tobacco use between demographic groups. Data are presented by gender, race/ethnicity, grade level, and family affluence (a proxy for socioeconomic status). A statistically significant difference exists between groups if the 95% confidence intervals do not overlap.

Ever smoked cigarettes			
Category	%	CI	
<b>Gender</b>			
Female	12.2	11.4-	13.1
Male	11.5	10.6-	12.5
<b>Race/Ethnicity</b>			
White	9.7	8.8-	10.6
Black	14.2	13.0-	15.5
Hispanic	18.2	15.9-	20.9
Other/Multiple	11.5	9.3-	14.1
<b>Grade</b>			
7th	8.8	7.9-	9.7
8th	14.6	13.4-	15.8
<b>Total</b>	<b>11.9</b>	<b>11.2-</b>	<b>12.6</b>

Smoked first tobacco product before age 11 years			
Category	%	CI	
<b>Gender</b>			
Female	3.4	3.0-	3.9
Male	5.4	4.8-	6.1
<b>Race/Ethnicity</b>			
White	2.8	2.4-	3.3
Black	6.3	5.6-	7.1
Hispanic	8.7	7.1-	10.6
Other/Multiple	7.8	5.9-	10.3
<b>Grade</b>			
7th	4.0	3.5-	4.5
8th	4.8	4.2-	5.4
<b>Total</b>	<b>4.6</b>	<b>4.2-</b>	<b>5.0</b>

Current cigarette use		
Category	%	CI
<b>Gender</b>		
Female	3.4	3.0- 4.0
Male	2.9	2.5- 3.4
<b>Race/Ethnicity</b>		
White	3.1	2.7- 3.5
Black	3.1	2.5- 3.7
Hispanic	6.0	4.9- 7.5
Other/Multiple	4.5	3.3- 6.2
<b>Grade</b>		
7th	2.3	1.9- 2.7
8th	3.8	3.3- 4.3
<b>Total</b>	<b>3.3</b>	<b>3.0- 3.6</b>

Current hookah use		
Category	%	CI
<b>Gender</b>		
Female	4.2	3.7- 4.9
Male	4.2	3.7- 4.8
<b>Race/Ethnicity</b>		
White	4.0	3.5- 4.6
Black	3.6	2.9- 4.3
Hispanic	9.8	8.1- 11.8
Other/Multiple	7.6	5.6- 10.3
<b>Grade</b>		
7th	3.0	2.5- 3.6
8th	5.1	4.5- 5.8
<b>Total</b>	<b>4.3</b>	<b>3.9- 4.8</b>

Current cigar use		
Category	%	CI
<b>Gender</b>		
Female	4.7	4.2- 5.3
Male	4.7	4.2- 5.3
<b>Race/Ethnicity</b>		
White	2.2	1.9- 2.6
Black	8.0	7.2- 8.9
Hispanic	9.0	7.5- 10.9
Other/Multiple	6.6	4.8- 9.1
<b>Grade</b>		
7th	3.6	3.1- 4.2
8th	5.4	4.8- 6.1
<b>Total</b>	<b>4.8</b>	<b>4.4- 5.2</b>

Current e-cigarette use		
Category	%	CI
<b>Gender</b>		
Female	4.1	3.6- 4.8
Male	5.9	5.3- 6.6
<b>Race/Ethnicity</b>		
White	4.7	4.1- 5.4
Black	5.4	4.6- 6.2
Hispanic	7.3	6.0- 8.9
Other/Multiple	7.0	5.2- 9.5
<b>Grade</b>		
7th	4.1	3.6- 4.8
8th	5.8	5.0- 6.6
<b>Total</b>	<b>5.1</b>	<b>4.7- 5.6</b>

## Cuyahoga County Trend Data

The following table presents the prevalence of tobacco use behaviors and attitudes 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>Ever smoked cigarettes</b> (Smoked a cigarette, even one or two puffs, on at least 1 day during their life.)			
21.2% (20.0-22.4)	11.9% (10.8-13.0)	8.8% (8.1-9.5)	11.9% (11.2-12.6)
<b>*Smoked a whole cigarette before age 11 years</b>			
4.0% (3.2-4.9)	3.4% (2.8-3.9)	2.5% (2.2-2.9)	N/A
<b>*Smoked first tobacco product before age 11 years</b>			
N/A	N/A	N/A	4.6% (4.2-5.0)
<b>Current cigarette use</b> (Smoked a cigarette on at least 1 day during the 30 days before the survey.)			
5.4% (4.8-6.0)	4.2% (3.7-4.7)	3.7% (3.3-4.0)	3.3% (3.0-3.6)
<b>Current cigar use</b> (Smoked a cigar, cigarillo, little cigar, or flavored cigar on at least 1 day during the 30 days before the survey.)			
8.0 % (7.3-8.7)	9.0% (8.2-9.9)	6.7% (6.1-7.3)	4.8% (4.4-5.2)
<b>Students believe it is very wrong for someone their age to smoke cigarettes</b>			
69.0% (67.3-70.8)	68.9% (67.2-70.6)	72.5% (71.4-73.6)	N/A
<b>Students perceive that their parents believe it is very wrong for them to smoke cigarettes</b>			
88.2% (86.5-89.9)	87.9% (86.9-89.0)	89.0% (88.3-89.8)	N/A
<b>Students perceive great risk of harm from smoking cigarettes</b> (Physically or in other ways, if smoke one or more packs a day.)			
N/A	63.7% (61.9-65.5)	65.4% (64.2-66.6)	N/A

\*Smoked a whole cigarette before age 11 years was revised in 2014 to include all tobacco products. Both items are included in this table.

<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> U.S. Department of Health and Human Services. 2004. *The Health Consequences of Smoking: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- <sup>ii</sup> U.S. Department of Health and Human Services. 1994. *Preventing Tobacco Use among Young People: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- <sup>iii</sup> World Health Organization (Tobacco Free Initiative). *Waterpipe tobacco smoking: health effects, research needs and recommended actions by regulators* (Advisory Note). Accessed on September 17, 2013 from [http://www.who.int/tobacco/global\\_interaction/tobreg/Waterpipe%20recommendation\\_Final.pdf](http://www.who.int/tobacco/global_interaction/tobreg/Waterpipe%20recommendation_Final.pdf)
- <sup>iv</sup> U.S. Department of Health and Human Services. 1994. *Preventing Tobacco Use among Young People: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- <sup>v</sup> U.S. Department of Health and Human Services. *Tobacco Use*. Retrieved from 2020 Topics & Objectives: <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=40>