

Diet has important links to adolescent health and well-being, as well as to major causes of morbidity and mortality later in life. In the United States, fewer than 20% of children and adolescents eat recommended daily quantities of fruits and vegetables. As children transition into adolescence, fewer eat breakfast daily and consume less of high-fiber fruits and vegetables. This is accompanied by increases in fast food consumption, high-calorie snacking, larger portion sizes, and greater quantities of fried and/or poor-nutrient foods. This data brief provides local reports of dietary behavior among Cuyahoga County adolescents as collected by the Youth Risk Behavior Survey (YRBS) among middle school students in 2016 and high school students in 2017.



In 2013 the Centers for Disease Control and Prevention (CDC) began reporting on adolescent daily consumption of individual servings of fruits and vegetables instead of a daily total of 5 or more servings of fruits and vegetables combined. Figure 1 portrays adolescent times/day (none, 1+, 2+, 3+) of fruit and vegetable consumption for the U.S., Cuyahoga County, and Cleveland as reported from the 2017 YRBS.

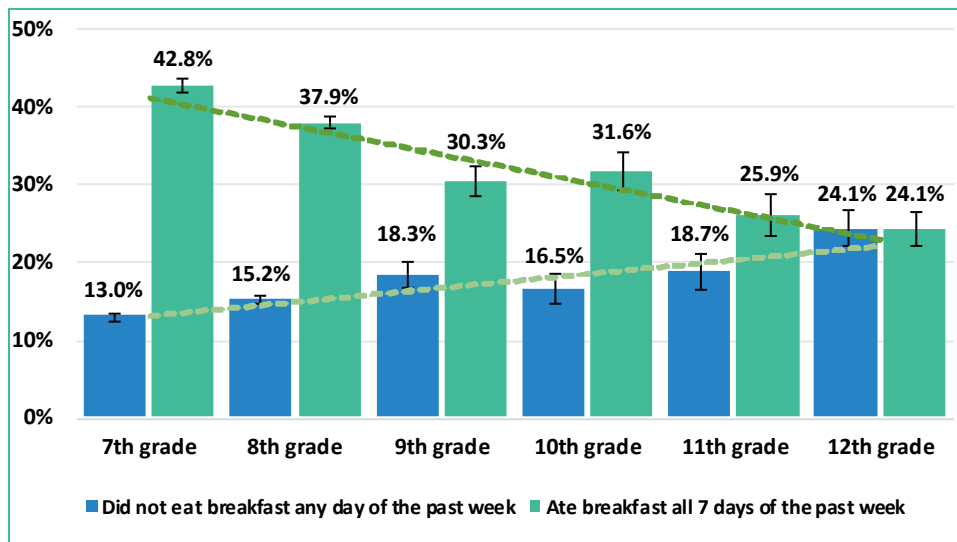


**Figure 1. High School Students Fruit and Vegetable Consumption**

YRBS	US	Cuyahoga County	Cleveland
<b>No Fruit</b>	5.0% (4.5-5.7)	6.2% (5.7-6.7)	8.6% (7.8-9.5)
<b>1+ Fruit/day</b>	62.6% (60.4-64.8)	59.9% (58.5-61.2)	51.7% (50.0-53.4)
<b>2+ Fruit/day</b>	33.2% (31.7-34.8)	30.6% (29.6-31.8)	24.9% (23.6-26.3)
<b>3+ Fruit/day</b>	21.9% (20.4-23.5)	17.9% (17.1-18.8)	18.5% (17.3-19.7)
<b>No Vegetables</b>	6.6% (5.9-7.4)	8.8% (8.1-9.5)	12.8% (11.8-13.8)
<b>1+ Veg/day</b>	61.5% (59.5-63.3)	57.0% (55.8-58.2)	46.6% (44.9-48.4)
<b>2+ Veg/day</b>	28.4% (26.4-30.4)	26.5% (25.6-27.5)	22.7% (21.2-24.3)
<b>3+ Veg/day</b>	15.7% (14.1-17.4)	15.0% (14.2-15.8)	14.1% (12.9-15.5)

Students in the city of Cleveland had significantly higher rates of eating no fruits or no vegetables compared to Cuyahoga County students overall or the U.S. overall. Similarly, reports of 1+ and 2+ times per day of fruit or vegetable consumption were lower among Cleveland high school students than for County and U.S. high school students overall.

**Figure 2. Breakfast Consumption in Cuyahoga County 7th through 12th Grade**

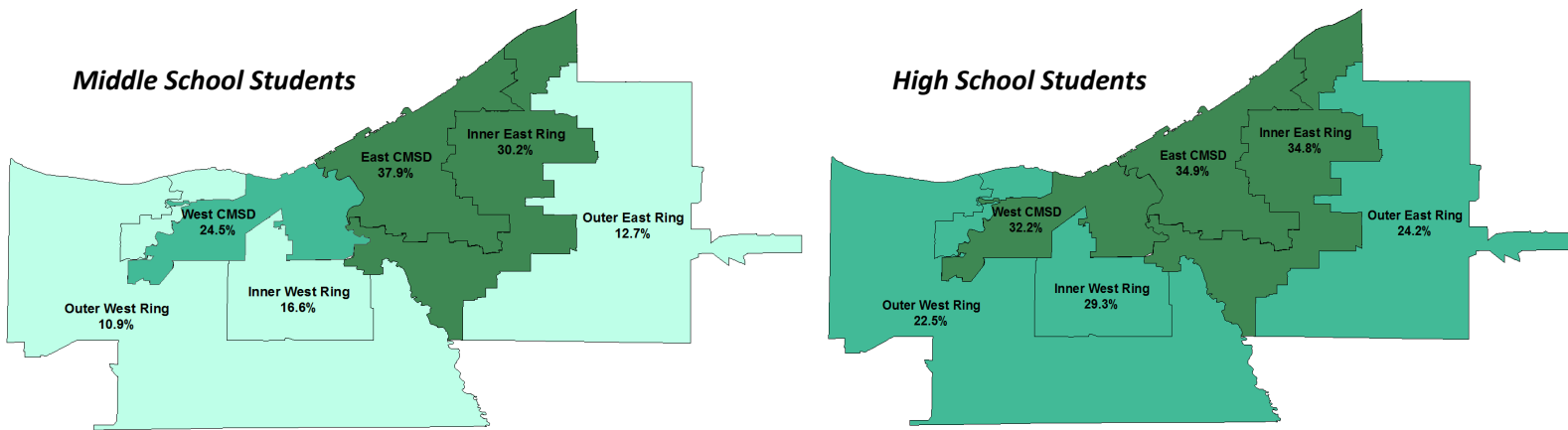


Daily breakfast consumption declines significantly for Cuyahoga County students from middle school to high school. Nearly 43% of 7th graders eat breakfast every day, while less than 25% do so in 12th grade. Breakfast consumption also declines significantly from 7th to 9th grade and from 10th to 11th grade.

Conversely, the prevalence of not eating breakfast any day increases significantly from 7th to 8th and from 8th to 9th grade for Cuyahoga County students. Although prevalence of not eating breakfast remains at similar levels from 9th through 11th grade, significantly more 12th graders do not eat breakfast, as shown in Fig. 2.

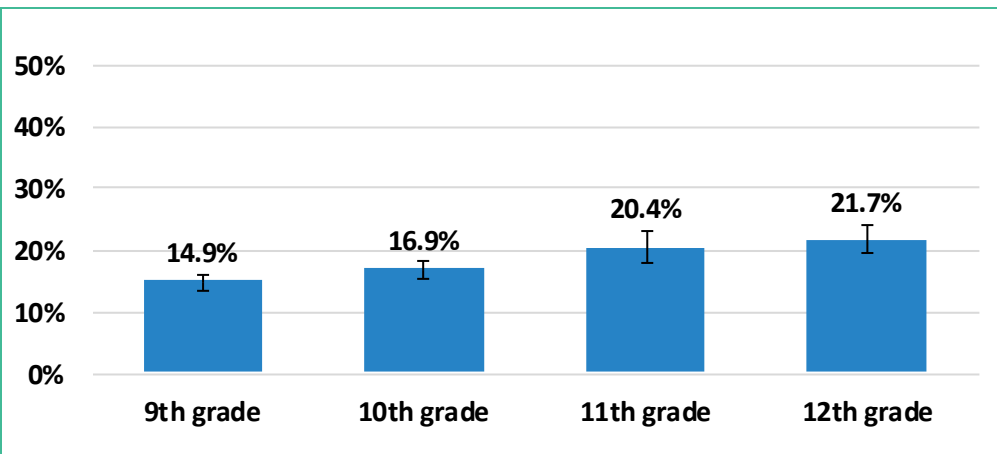
In addition to measuring healthy eating habits among adolescents such as fruit and vegetable intake and daily breakfast consumption, the YRBS asks youth about their unhealthy and potentially problematic eating habits. These include frequency of fast food consumption and prevalence of hunger.

**Figure 3. Prevalence of Fast Food Consumption 3+ Days Per Week among Cuyahoga County Students**



The frequency of fast food consumption among middle school and high school students varies greatly by region in Cuyahoga County. Cleveland East and the Inner East Ring of the county have the highest fast food consumption in middle school and high school students, with Cleveland West also having a higher rate of consumption than the remaining regions. The rates of fast food consumption all increase from the middle school population to the high school population, except the Cleveland East region.

**Figure 4. Prevalence of Hunger (Sometimes, Most of the Time, or Always) among Cuyahoga County High School Students**



There is a significant increase in the prevalence of high school students who go hungry between 9th and 12th grade, as shown in Figure 4. There is also a significant difference in the academic achievement of high school students who go hungry on a regular basis. Among the students who go hungry, about 40% of them reported grades of C's or less, while only about 20% of students who rarely or never go hungry reported grades of C's or less.

**Students who go HUNGRY are TWICE AS LIKELY to GET Cs, Ds, and Fs than those who DO NOT go HUNGRY**

**Methods:** The Prevention Research Center for Healthy Neighborhoods (PRCHN) regularly uses a two-stage cluster sample design that mimics the sampling method of the Centers for Disease Control and Prevention (CDC) and its national Youth Risk Behavior Survey (YRBS). In 2017, 45 of 58 high schools (77.6%) and 13,907 of 18,098 students (76.8%) participated in the survey. An overall response rate of 60% (77.6 x 76.8) allowed the data to be weighted to the entire population of 9th-12th grade students in Cuyahoga County. In 2016, 95 of 104 schools that enrolled 7th and/or 8th grade students (91.3%), and 13,261 of 14,809 eligible students participated in the survey. An overall response rate of 82% (91.3 x 89.6) allowed the data to be weighted to the entire population of 7th-8th grade students in Cuyahoga County. Analyses were conducted using SPSS statistical software survey procedures to account for the sampling design. Unless otherwise noted, all differences in behavior are significant at the  $p < .05$  level.

**Contributors:** This data brief was prepared by the PRCHN and authored by Jean Frank, MPH; Audrey Kinsella, MPH; Susan Petrone, MA; Christina Wheeler; Briana McIntosh, MPH; Marisa Hollinshead; Sarah Koopman Gonzalez, Ph.D; and Erika Trapl, Ph.D. For more information contact Jean Frank (jean.frank@case.edu).

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\* This brief is an update of a previous 2015 brief and features data from the most recent YRBS administration.

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Full data modules from the YRBS are available online at:

<http://www.prchn.org/YRBSresults.aspx>