## Data Brief

Healthy " " Neighborhoods \*\*

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During 2005 through 2009, about one in every eight (12.7%) Cleveland adults said that they had currently suffered from asthma during the year surveyed. Overall, at least one in every six (17.6%) said they ever had asthma at some ime during their lifetime. These

time during their lifetime. These estimates are based on new analyses of data from the Cleveland-Cuyahoga County Behavioral Risk Factor Surveillance Survey (BRFSS) collected from more than 6,300 Cleveland residents who participated in the survey between 2005-2009.

The first condition, "current asthma", is defined as a wheeze with tight, constricted airways in the past year. The second condition, "lifetime asthma", is defined as having been diagnosed with asthma during their lifetime. This data brief is focused on the prevalence of current asthma among Cleveland adults.

Rates vary by age and sex

In the BRFSS surveys of Cleveland adults, rates of current asthma reported during 2005

through 2009 were twice as high among females (16.8%) than males (7.4%). This difference in current asthma across gender is consistent with state and national data. In addition, rates for both men and women appear to increase slightly from 2005-2007 to 2008-2009. See Figure 4 for these local results. For 2005-2007, current asthma prevalence was 15.3% for women, 7.0% for men compared to 18.4% for women and 7.7% for men for 2008-2009.

## "One in every six women in Cleveland had asthma."

The local data also confirm the small but steady increase in current asthma as adults increase in age up to 65 years (Figure 4). At age 65 and after, the rate of current asthma drops slightly, consistent with data for Ohio and nationwide.

Locally, current asthma rates do not appear to differ by race. In Cleveland, black/African American adults were just as likely to currently have asthma as white adults, (12.3% for black adults and 12.0% for white adults, 2005-2009).

Lastly, current asthma rates for 2009 in Cleveland were significantly greater than that for Ohio and the US, Allegheny County

### Figure 1.

#### Prevalence of asthma in Cleveland neighborhoods, 2005-2009 Source: Behavioral Risk Factor Surveillance System (BRFSS) **Cleveland neighborhood clusters** (W) West Riverside, Puritas-Longmead, Kamms Corner, and Jefferson (NW) Northwest Edgewater, Cudell, Detroit-Shoreway, Ohio City/Near West Side, and Tremont (S/SW) South/ West Boulevard, Stockyards, Clark-Fulton, Brooklyn-Center, and Old Brooklyn Southwest: Downtown, Central, Goodrich-Kirtland Park, St. (E) East: Clair-Superior, Fairfax, Hough, and University (NE) Northeast: Glenville, Forest Hills, North and South Collinwood, and Euclid-Green (EC) Eastern Industrial Valley, North Broadway, Kinsman, NE Woodland Hills and Buckeye-Shaker Corridor: 10.5% South Broadway, Union-Miles, Corlett 14.2% E (SE) Southeast: Mt. Pleasant, and Lee-Miles 14:7% 14.3% NW EC 10.9% 11.0% SE 12.5% S/SW Source: Prevention Research Center for Healthy Neighborhoods Case Western Reserve University





# Asthma In Cleveland



(Pittsburgh) and Wayne County (Detroit). See Figure 3. We make this conclusion because the 95% confidence interval for Cleveland does not overlap the intervals for Ohio, Allegheny and Wayne counties and is higher than the median rate for the US.

### Current asthma in Cleveland <u>Neighborhoods</u>

The neighborhoods with the highest current asthma levels were those closest to the city center. Figure 1 shows current asthma prevalence across groups of Cleveland neighborhoods. The highest levels were in northwestern (14.7%), eastern (14.2%), and eastern corridor neighborhoods (14.3%), and lowest on the far west side (10.9%) and southeast of Cleveland (11.0%). While these differences across neighborhoods were not statistically significant, it is clear that people in some neighborhoods are more affected by the disease than others.

Figure 2 shows how current asthma varied between the two survey periods across Cleveland neighborhoods. The Northwest (NW) neighborhoods showed the widest variation in the number of people with asthma from 2005-2009, from 12.7% (almost 1 in 8 adults) from 2005-07 to 16.8% (1 in 6 adults) in 2008-09. However, these changes in time were not statistically significant.

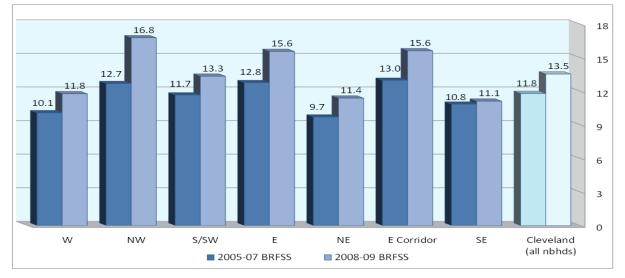
Lastly, Cleveland adults with current asthma were 74% more likely to have high blood pressure, and 84% more likely to be obese. They were nearly three times (2.93 times) more likely to see their health as fair or poor than those without current asthma, and 2.6 times more likely to have limited activity for at least one day in the past month due to physical or mental health issues.

For more detailed statistical figures, visit <u>www.prchn.org/brfss</u>.



## How do Cleveland neighborhoods compare?

Figure 2. Current asthma (%)among BRFSS Survey Respondents by Cleveland Neighborhood Groups, survey years 2005-07 vs. 2008-09



## How does Cleveland/Cuyahoga County compare to other areas?

Figure 3. Prevalence of asthma in adults (percent, (95% confidence interval) (Source: CDC, BRFSS and PRCHN)

BRFSS (year)	US*	Ohio	Cuyahoga County	Cleveland	Akron	Allegheny Co (Pittsburgh)	Wayne Co. (Detroit)
2005	8.0%	8.0 % (7.0-9.0)%	9.0% (6.3-11.8)%	11.4% (8.9-13.9)%	7.4%* (4.4-10.3)%	5.0% (3.4-6.5)%	11.3% (9.2-13.5)%
2009	8.8%	9.9% (9.0-10.9)%	10.2% (6.6-13.7)%	14.0% (11.3-16.7)%	10.6% (7.2-13.9)%	8.6% (5.8-11.3)%	9.7% (7.9-11.4)%
* median			*2006				

## Who has asthma in Cleveland?

Figure 4. Asthma prevalence by demographic characteristic

Demograp	hics	Full Survey	Survey Periods					
		2005-09	2005-2007	2008-2009				
Total		12.7%	11.8%	13.5%				
Age (y	rs) 18-29	12.5%	10.5%	14.2%(1)				
	30-49	12.6%	11.6%	13.6%				
	50-64	13.5%	13.7%	13.3%				
	65+	10.5%	9.7%	11.3%				
Gender	male	7.4%	7.0%	7.7%				
	female	16.8%(2)	15.3%(2)	18.4%(2)				
Race	white	12.0%	9.3%	13.1%				
bl	ack/Af Am	12.3%	10.2%	12.5%				
	other	12.8%	11.0%	14.6%				
(1) Sample too small for a reliable estimate								
(2) Significantly higher among females than males								

Methods: We used the method of Korn and Graubard (Wiley, 1999) to adjust sampling weights necessary when combining multiple years of survey weighted data. Additional methods were developed to improve the precision of estimates and estimate the error (confidence intervals) for these neighborhood clusters. A more detailed description is available at our website, http://prchn.org.

Contributors: The information in this report was obtained from the 2005-2009 Cleveland-Steps to a Healthier Cleveland and Cuyahoga County Behavioral Risk Factor Surveillance Surveys (CLE-BRFSS and CC-BRFSS). These telephone-based surveys are modeled after the CDC state -based system of health surveys administered annually by each state department of health, and are comprised of telephone surveys of county adults aged 18 years and older who are asked about their health, behavior and opinions on topics related to living healthier lives. Locally, the surveys involved the Cleveland Department of Public Health and the Cuyahoga County Board of Health, with coordination by the Prevention Research Center for Healthy Neighborhoods (PRCHN) at Case Western Reserve University. Please refer to the Cleveland Steps and CC-BRFSS Methodology Briefs available at <u>http://prchn.org</u>. This data brief was prepared by the Prevention Research Center for Healthy Neighborhoods and authored by David Bruckman, MS, MT(ASCP), Jeri Jewett-Tennant, MPH and Elaine A. Borawski, PhD. For more information contact David Bruckman (david.bruckman@case.edu) or Dr. Elaine Borawski (elaine.borawski@case.edu).

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