

# Hypertension In Cleveland

**More than one third (34.8%) of Cleveland adults had high blood pressure (hyper-tension) between 2005 and 2009, and nearly three of every four older Cleveland adults have hypertension.** This is based on new analyses of data from the Cleveland-Cuyahoga County Behavioral Risk Factor Surveillance Survey (BRFSS) in which more than 6,300 Cleveland residents participated in five years of surveys. High blood pressure can lead to stroke, heart attacks, kidney damage and other illnesses.

### Rates increase by age/race

In the survey, Cleveland adults were asked if they had been told by a health professional that they have high blood pressure. The number of adults with

hypertension significantly increases with age, with the rate (%) nearly doubling with each age group, as shown on the back (see "Who has hypertension"). Most striking is the prevalence of hypertension for those under age 50 and those age 50 and older. Hypertension was reported by 26.1% among adults age 30-49, nearly doubling to 51.8% among adults age 50-64. Rates are highest among adults age 65 and over (67.4%). The local data also confirms age trends seen in BRFSS data for Ohio and nationwide (see Figure 4 on back).

Hypertension rates did not differ by gender across the two time periods (2005-2007 and 2008-2009) but did by race. In 2005-2007, Black/African American adults were more likely to have hypertension than white adults, or adults of other races (40.8% for black adults, 32.9% for white adults and



28.0% for other races, 2005-2009). This is consistent with state and national data. But in 2008-2009, hypertension prevalence increased significantly among white Cleveland adults, erasing the difference between races for that period. Hypertension prevalence rose from 28.1% for white adults in 2005-2007 to 37.7% in 2008-2009. This was consistent with state data, where hypertension prevalence increased substantially among white adults in Ohio from 2007 to 2009. (Source: Ohio BRFSS). Current hypertension rates in Cleveland for 2005 and 2009 were significantly greater than that for Ohio and the U.S. (Figure 3).

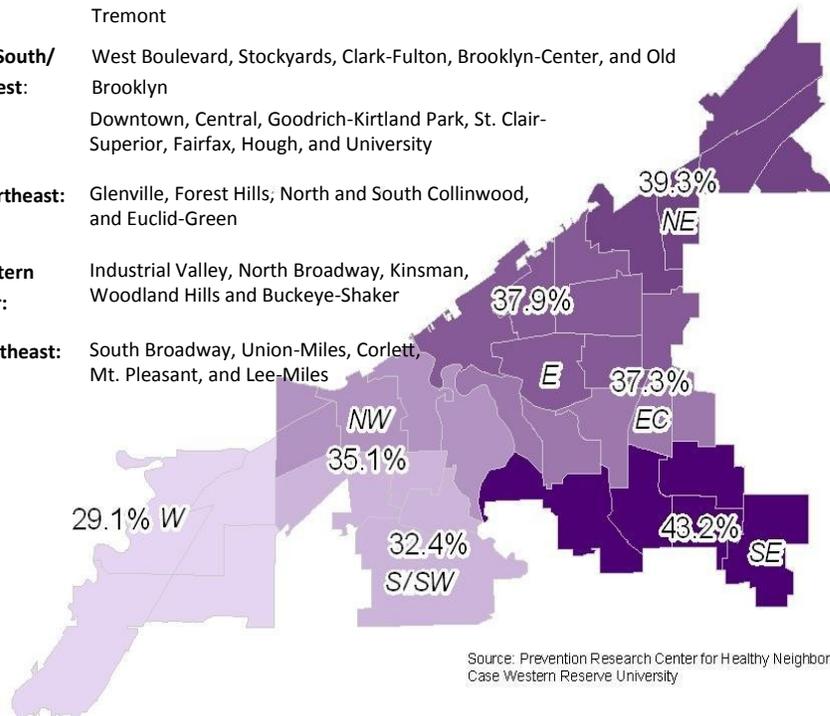
Figure 1.

## Prevalence of hypertension 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/Southwest:** West Boulevard, Stockyards, Clark-Fulton, Brooklyn-Center, and Old Brooklyn
- (E) East:** Downtown, Central, Goodrich-Kirtland Park, St. Clair-Superior, Fairfax, Hough, and University
- (NE) Northeast:** Glenville, Forest Hills, North and South Collinwood, and Euclid-Green
- (EC) Eastern Corridor:** Industrial Valley, North Broadway, Kinsman, Woodland Hills and Buckeye-Shaker
- (SE) Southeast:** South Broadway, Union-Miles, Corlett, Mt. Pleasant, and Lee-Miles



Source: Prevention Research Center for Healthy Neighborhoods, Case Western Reserve University

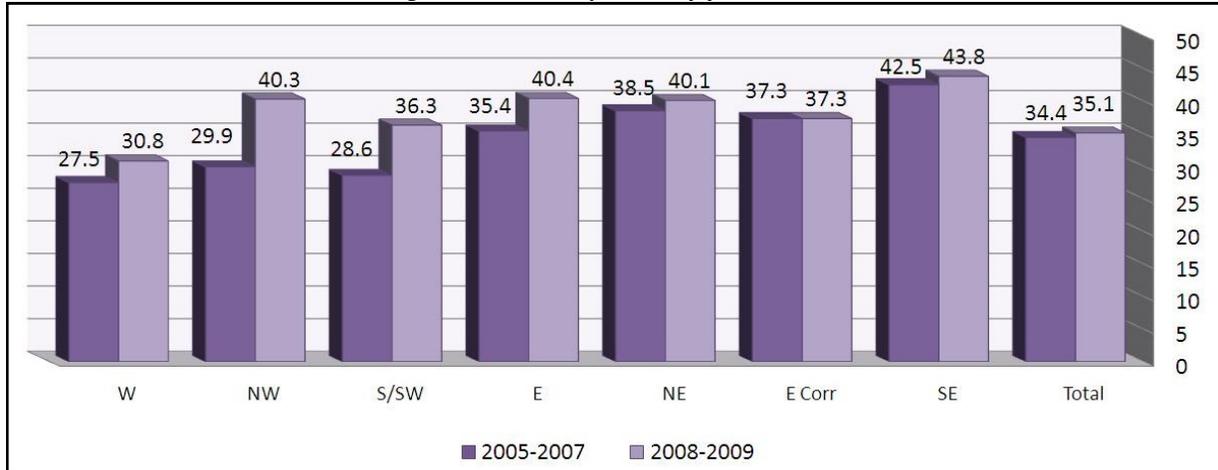
### Hypertension in Cleveland Neighborhoods

As shown in the map at left, southeast Cleveland neighborhoods had significantly higher hypertension rates (42.3%) compared to West (29.1%) and south/southwest (32.4%) neighborhoods in 2005-2009 survey years. These higher rates may be due to greater numbers of older black/African Americans living in Southeast Cleveland. Between the 2005-2007 and 2008-2009 time periods, hypertension rates did not significantly change within any of the neighborhood clusters.

For more detailed statistical figures, visit [www.prchn.org/brfss](http://www.prchn.org/brfss).

## How do Cleveland neighborhoods compare?

Figure 2. Hypertension Awareness (%) 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 hypertension 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*	25.5%	27.0% (25.5-28.5)%	28.8% (24.9-32.8)%	32.7% (29.0-36.4)%	28.5% <sup>†</sup> (24.7-32.2)%	28.2% (24.7-31.8)%	29.0% (26.5-31.9)%
2009*	28.7%	29.8% (30.4-33.0)%	34.1% (29.5-38.6)%	36.7% (33.0-40.3)%	29.7% (25.7-33.6)%	34.2% (29.8-38.5)%	32.2% (29.4-34.9)%

\*single year      \*\*median      †2006

## Who has hypertension in Cleveland?

Figure 4. Hypertension prevalence by demographic characteristic

Demographics	Full Survey (2005-2009)		Survey Periods	
	Prev.	95% CI	2005-07	2008-09
Total	34.8%	(27.89-42.20)	34.4%	35.1%
Age (yrs.) 18-29	11.6%*	(6.80-16.33)	10.2%*	13.0%*
30-49	26.1%*	(22.58-29.58)	24.6%*	27.5%*
50-64	51.8%*	(47.70-55.98)	51.1%*	52.6%*
65+	67.4%*	(63.34-71.37)	65.7%*	69.0%*
Gender male	34.1%	(30.60-37.69)	32.6%	35.7%
female	37.3%	(34.74-39.87)	34.9%	39.7%
Race white	32.9%	(29.43-36.36)	28.1%	37.7% ‡
black/Af Am	40.8%†	(36.60-44.96)	39.1%†	42.0%
other	28.0%	(19.70-36.37)	26.6%	29.5%

\* Significantly increases with each age level  
 † Significantly higher among black/African American versus white and other races  
 ‡ Significantly increased in 2008-2009 from 2005-2007

**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 <http://prchn.org>. 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](mailto:david.bruckman@case.edu)) or Dr. Elaine Borawski ([elaine.borawski@case.edu](mailto:elaine.borawski@case.edu)).

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