More than one in every three (34.1\%) Cleveland adults were obese when surveyed during 2005 through 2009. This is based on new analyses of data from the ClevelandCuyahoga County Behavioral Risk Factor Surveillance Survey (BRFSS), in which more than 6,300 Cleveland residents participated in five years of surveys. Obesity was measured using BMI, (body mass index) adjusted for males and females. In general, anyone with a BMI 30 or greater is considered obese. Obesity is strongly linked to type 2 (adult onset) diabetes, heart disease, high blood pressure, some kinds of cancer (uterine,
breast and colon), sleep apnea and respiratory problems, arthritis and other illnesses.

## Rates increase by age

In the survey, Cleveland adults were asked for their height, weight and age. BMI was determined from these values. Across the five years surveyed, adults age 30-49 were more likely to be obese than those age 18-29 or 50 years and over. Four in every ten (40.5\%) Cleveland adults age 30-49 were obese (see "Who is obese" table on back). This differs from state-level estimates, where those 50-64 tend to have higher occurrence of obesity. Obesity in Cleveland is lowest among the youngest (18-24) and oldest (65+) adults.

Obesity differed by gender and race. More females were obese than males

## Figure 1.



regardless of the years surveyed. Across 2005-2009, 39.5\% of females and 30.7\% of males were obese. Black/African American adults were more likely to be obese than white adults ( $42.3 \%$ for black adults, $28.5 \%$ for white adults, 2005-2009). This is consistent with state and national data.
As seen in Figure 3 on the back, obesity rates (\%) in Cleveland adults for 2005 and 2009 were significantly greater than for all of Cuyahoga County, Ohio and the U.S., as well as comparable cities.

## Obesity in Cleveland Neighborhoods

 Obesity rates in Cleveland range from $29.3 \%$ in the Western neighborhoods to $41.8 \%$ in the Southeastern neighborhoods (see map at left). The higher rates may be due to greater numbers of female black/African Americans living in Southeast Cleveland compared to other areas. Between the 2005-2007 and 2008-2009 time periods, obesity rates did not significantly change within any of the neighborhood clusters.For more detailed statistical figures, visit www.prchn.org/brfss.

How do Cleveland neighborhoods compare?
Figure 2. Obesity (\%) among BRFSS Survey Respondents by Cleveland
Neighborhood Groups for survey years 2005-07 vs. 2008-09


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

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

| BRFSS (year) | US* | Ohio | Cuyahoga County | Cleveland | Summit Co. Akron | Allegheny Co. (Pittsburgh) | Wayne Co. (Detroit) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | 24.4\% | $\begin{gathered} 24.3 \% \\ (22.7-25.9) \% \end{gathered}$ | $\begin{gathered} 23.0 \% \\ (18.9-27.2) \% \end{gathered}$ | $\begin{gathered} 33.8 \% \\ (30.2-37.4) \% \end{gathered}$ | $\begin{gathered} 29.0 \%^{+} \\ (23.9-34.0) \% \\ \hline \end{gathered}$ | $\begin{gathered} 22.1 \% \\ (18.6-25.7) \% \end{gathered}$ | $\begin{gathered} 31.0 \% \\ (28.1-34.0) \% \end{gathered}$ |
| 2009 | 26.9\% | $\begin{gathered} 29.8 \% \\ (28.4-31.2) \% \end{gathered}$ | $\begin{gathered} 26.3 \% \\ (21.9-30.6) \% \end{gathered}$ | $\begin{gathered} 35.0 \% \\ (31.4-38.7) \% \end{gathered}$ | $\begin{gathered} 30.1 \% \\ (26.2-35.7) \% \\ \hline \end{gathered}$ | $\begin{gathered} 28.2 \% \\ (25.0-31.3 \%) \% \\ \hline \end{gathered}$ | $\begin{gathered} 33.7 \% \\ (30.5-36.8) \% \end{gathered}$ |

## Who is obese in Cleveland?

Figure 4. Obesity prevalence by demographic characteristic

| Demographics | Full Survey | Surv | eriods |
| :---: | :---: | :---: | :---: |
|  | 2005-09 | 2005-2007 | 2008-2009 |
| Total | 34.1\% | 34.0\% | 34.2\% |
| Age (yrs) 18-29 | 28.0\% | 26.7\% | 29.3\% |
| 30-49 | 40.5\% (1) | 40.0\% (1) | 41.0\% |
| 50-64 | 37.8\% | 37.6\% | 38.1\% |
| 65+ | 32.2\% | 30.2\% | 34.3\% |
| Gender male | 30.7\% | 29.6\% | 31.7\% |
| female | 39.5\% (2) | 37.7\% (2) | 41.4\% (2) |
| Race white | 28.5\% | 27.0\% | 29.9\% |
| black/Af Am | 42.3\% (3) | 40.1\% (3) | 44.4\% (3) |
| other | 35.2\% | 30.0\% | 40.3\% * |
| (1) Significantly higher among 30-49 than for 18-29 and 65+ |  |  |  |
| (2) Significantly higher among females than males |  |  |  |
| (3) Significantly higher among black/Af Am than white |  |  |  |
| *under 50 respondents; estimate unreliable for comparisons |  |  |  |

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 CCBRFSS). 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) or Dr. Elaine Borawski (elaine.borawski@case.edu).
Suggested citation: Bruckman D, Jewett-Tennant J \& Borawski E. (February 2012). Data Brief: Adult Obesity in Cleveland Neighborhoods, (2005-2009). Cleveland, OH: Prevention Research Center for Healthy Neighborhoods at Case Western Reserve University.

Curahoca
County
Board

