THE BURDEN OF ADULT OBESITY IN INDIANA 2012

GLOBAL HEALTH INSTITUTE

BRFSS

THE BURDEN OF ADULT OBESITY IN INDIANA

Quick Facts

An estimated 1.5 million adults in Indiana report being obese.

Indiana ranks 8th worst in the U.S. in terms of obesity.

The direct annual medical cost of obesity in the U.S. is estimated to be as high as $147 billion (F. et al., 2009).

An obese person spends roughly 42% more each year on healthcare than a normal weight person (F. et al., 2009).

OBESITY IS PREVENTABLE (WHO, 2012).

Perspective

- 30.8% of the adult population of Indiana, or about 1.5 million, report being obese as measured by Body Mass Index (BMI)[1].
- Indiana ranks 8th worst in terms of the percentage of the population who are obese among the 50 states and the District of Columbia.
- Among adults under 65 in Indiana, the percentage who report being obese increases with age, while there is a consistent negative trend as education increases. The percentages are mixed among income groups and nearly equivalent between sexes.
- Obesity poses a major risk for serious noncommunicable diseases, such as cardiovascular disease, diabetes, muscukoskeletal disorders, and cancer (WHO, 2012).
- In 2008, the annual direct medical cost of obesity in the United States was estimated to be as high as $147 billion, rising to nearly 10% of all medical spending; almost doubling an estimate of $78.5 billion in 1998 (Finkelstein et al., 2009).
- An obese person in the United States spends over $1,400, or roughly 42%, more each year on healthcare than a normal weight person (Finkelstein et al., 2009).
- Overweight and obesity are the 5th leading risk for global deaths resulting in 2.8 million deaths per year (WHO, 2012).
- OBESITY IS PREVENTABLE (WHO, 2012).
- By 2030, the majority of U.S. states could have obesity levels above 50% (TFAH & RWJF, 2012)

Demographical Breakdown

SEX — 30.9% of males report being obese compared to 30.8% of females.

AGE — 19.6% of adults 18-24 years old, 32.0% of adults 25-44 years old, 36.4% of adults 45-64 years old, and 26.6% of adults 65+ years old report being obese.

RACE/ETHNICITY — 29.5% of white, non-Hispanic adults, 42.2% of black, non-Hispanic adults, 34.7% of Hispanic adults, and 34.4% of other adults report being obese.

INCOME — 35.0% of adults with annual household incomes of less than $15,000, 35.3% of those between $15,000-$24,999, 31.1% of those between $25,000-$49,999, 32.0% of those between $50,000-$74,999, and 26.4% of those over $75,000 report being obese.

EDUCATION — 36.2% of adults with less than a high school education, 32.3% of adults with a high school education, 31.8% of adults with some college education, and 23.5% of adults with a college education report being obese.

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Adults who report being obese are more likely to also report having cardiovascular disease and/or diabetes.

The percentage of adults who are obese has steadily increased over the past twenty years.

Worldwide obesity has more than doubled since 1980 (WHO, 2012).

By 2030, the majority of states could have obesity levels above 50% (TFAH & RWJF, 2012).

Related Diseases

Cardiovascular Disease

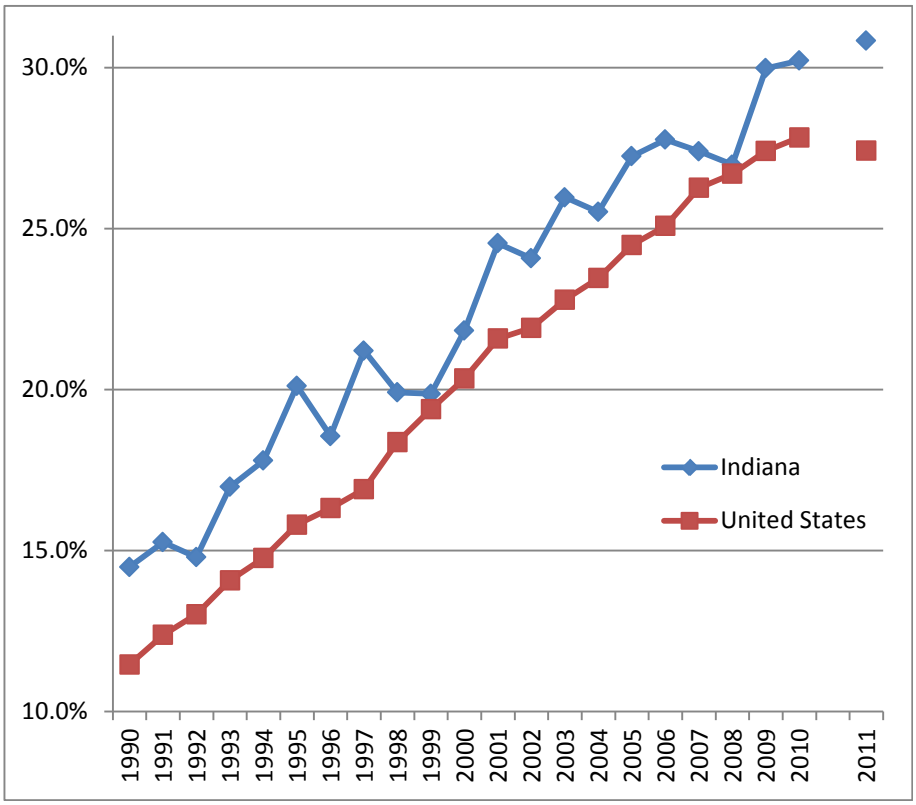
13.3% of adults who report being obese also report having cardiovascular (CV) disease[2] compared to 7.2% of adults who report being normal weight and report having cardiovascular disease.

Diabetes

18.7% of adults who report being obese also report having diabetes compared to 4.0% of adults who report being normal weight and report having diabetes.

Trend

The following figure[3] displays the trend in the percentage of adults in Indiana and those in the United States who report being obese.



Footnotes

[1]BMI, or Body Mass Index, is a weight-for-height measure to classify underweight, overweight, and obese status in adults. It is defined as the weight in kilograms divided by the square of the height in meters (kg/m^2). A normal BMI range is 18.50-24.99, overweight is 25.00-29.99, and obese is 30.00+ (WHO, 2012).

[2]Cardiovascular disease included persons who report ever having a heart attack, a stroke, angina, and/or coronary heart diease (CDC, 2012).

[3]Beginning in 2011, the CDC made a methodological change to their data collection procedures for BRFSS. Therefore, data prior to 2011 cannot be accurately compared with 2011 and subsequent years data (CDC, 2012).

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Obesity could contribute to more than 6 million cases of type 2 diabetes, 5 million cases of [CV disease], and more than 400,000 cases of cancer in the next two decades (TFAH & RWJF, 2012).

If the average BMI of the population could reduce by just 5% by 2030, millions of people could avoid obesity-related diseases and billions of dollars would be saved (TFAH & RWJF, 2012).

The U.S. has the highest rate of obesity in the world (OECD, 2011).

Appendix

Statistical Analysis

Tests for statistically significant differences across the groups listed below were performed at the 5% significance level. Tests comparing two groups, for example: male vs female, were performed using a two sample z-test for proportions. For the categories that utilize multiple groups, for example: age, the Marascuillo procedure was employed to perform pairwise comparisons. The time series data were not tested due to a methodological change made by the CDC detailed in the footnotes section. Please see the following results:

SEX	The male and female groups are not significatly different from each other.
AGE	All age groups are significantly different from each other.
RACE/ ETHNICITY	No race/ethnicity groups are significantly different from each other, except the white, non-Hispanic and black, non-Hispanic groups.
INCOME	No income groups are significantly different from each other, except the less than $15,000 and greater than $75,000 groups, and the $15,000-$24,999 and greater than $75,000 groups.
EDUCATION	Each education group is significantly different from the graduated college group. No other groups are significantly different from each other.
CV DISEASE	The obese with CV disease and normal weight with CV disease groups are significantly different from each other.
DIABETES	The obese with diabetes and normal weight with diabetes groups are significantly different from each other.

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About The Global Health Institute

Ball State University's Global Health Institute (GHI) focuses on various issues related to the function of health care systems and the promotion of health. The interdisciplinary institute concentrates on: public and community health; public, business and science policy; information systems and communication technology; architecture and design. The study of health-related issues is a key research and educational priority for Ball State.

The Global Health Institute's mission is to encourage interdisciplinary investigation of critical issues that impact local and global health.

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