MULTIPLE FACTORS ASSOCIATED WITH OVERWEIGHT AND OBESITY

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Multiple Factors Associated with Overweight and Obesity

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Obesity Trends* Among U.S. Adults

BRFSS, 1985

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” woman)
Obesity Trends* Among U.S. Adults

BRFSS, 1986
Obesity Trends* Among U.S. Adults

BRFSS, 1990
Obesity Trends* Among U.S. Adults

BRFSS, 1991

[Map showing obesity trends among U.S. adults in 1991 with various states shaded in different colors to represent different obesity percentage ranges: No Data, <10%, 10%-14%, and 15%-19%.]

Legend:
- No Data
- <10%
- 10%-14%
- 15%-19%
Obesity Trends* Among U.S. Adults

BRFSS, 1992

No Data  <10%  10%–14%  15%–19%
Obesity Trends* Among U.S. Adults

BRFSS, 1993

No Data <10% 10%–14% 15%–19%
Obesity Trends* Among U.S. Adults

BRFSS, 1994

[Map showing obesity trends among U.S. adults in 1994]
Obesity Trends* Among U.S. Adults
BRFSS, 1995

No Data         <10%         10%–14% 15%–19%
Obesity Trends* Among U.S. Adults
BRFSS, 1996
Obesity Trends* Among U.S. Adults

BRFSS, 1997

No Data          <10%             10%–14  15%–19%  ≥20%

[Map showing obesity trends across the United States with color codes for different percentage ranges]
Obesity Trends* Among U.S. Adults

BRFSS, 1998

No Data          <10%             10%–14  15%–19%  ≥20%

[Map of the United States with states color-coded to represent obesity trends]
Obesity Trends* Among U.S. Adults

BRFSS, 1999

No Data          <10%             10%-14 15%-19% ≥20%
Obesity Trends* Among U.S. Adults

BRFSS, 2000

[Map of the United States showing obesity trends among U.S. adults with color-coding for different percentage ranges of obesity.]
Obesity Trends* Among U.S. Adults

BRFSS, 2002

Source: Behavioral Risk Factor Surveillance System, CDC
Percent of Child Population in Selected Race and Ethnic Groups

Figure 3. Percent of population in selected race and Hispanic origin groups by age: United States, 1980-2000

- Hispanic
- Black
- Asian or Pacific Islander
- American Indian or Alaska Native
- 2 or more races

Under 18 years of age

Percent

1980
1990
2000
Percent of Adult Population in Selected Race and Ethnic Groups

18 years of age and over

- Hispanic
- Black
- Asian or Pacific Islander
- American Indian or Alaska Native
- 2 or more races

NOTES: Persons of Hispanic origin may be of any race. Race data for 2000 are not directly comparable with data from 1980 and 1990. Individuals could report only one race in 1980 and 1990, and more than one race in 2000. Persons who selected only one race in 2000 are shown in single-race categories; persons who selected more than one race in 2000 are shown as having 2 or more races and are not included in single-race categories. In 2000 the category "Asian or Pacific Islander" includes Asian and Native Hawaiian or Other Pacific Islander. See Data Table for data points graphed.

Figure 16. Obesity among adults 20-74 years of age by sex, race, and Hispanic origin: United States, 1999-2000

NOTES: Percents are age adjusted. Obesity is defined as a body mass index (BMI) greater than or equal to 30. Persons of Mexican origin may be of any race. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.
Figure 5. Low income population by age, race, and Hispanic origin: United States, 2001

NOTES: Poor is defined as family income less than 100 percent of the poverty level and near poor as 100-199 percent of the poverty level. Persons of Hispanic origin may be of any race. Black, and Asian and Pacific Islander races include persons of Hispanic and non-Hispanic origin. See Data Table for data points graphed and additional notes.

Figure 1: Historical Change in US Body Mass Index: 1863-1991.

Older U.S. Population

Figure 2. Percent of population in 3 age groups: United States, 1950, 2000, and 2050

1950

2000

2050

NOTE: See Data Table for data points graphed and additional notes.

Baby Boomers

- Born 1946-1964
- All are middle-aged
- 40-58 years old in 2004
The Transformation

CARBS-free
SUGAR BUSTERS!®
CUT SUGAR TO TRIM FAT
...I'm sure it's just until this Atkins fad is over, sir...

The Hell-Dispatch
Carbs Overtake Devil as #1 Evil
Free/Added Sugars Recommendations

10% or less  25% or less
Non-Modifiable Factors Associated with Overweight

- Age
- Gender
- Race/ethnicity
- Income
Modifiable Factors Associated with Overweight

- Physical Activity
- Sedentary Behavior
- Diet
Factors Associated with Children’s BMI

Diet 0.5%
Income 0.5%
TV 1.0%
Diet 0.5%

Demographics 5.5%

Unexplained Variance 91.2%
Explained Variance 8.8%

Explained Variance

Total Variance

Children’s BMI
Factors Associated with Adolescents’ BMI

Total Variance

Unexplained Variance
87.5%

Explained Variance
12.5%

Adolescents’ BMI

Explained Variance

Demographics
5.5%

TV
3.1%

Income
0.6%

Diet
3.4%
Predicted Change in Children’s BMI

Demographics, Lifestyle, and BMI in Children

Predicted Change in Adolescents’ BMI

Demographics, Lifestyle, and BMI in Adolescents

This isn't what I meant by "play outside"!

Now she tells us.

This sofa was a pain to move, mother!
Girls 12-16 Years

Decile of Participation

Predicted BMI

Regular Carbonated Soft Drink Consumption (times/month)
Team/Exercise Programs (# in past year)
Television Viewing (# hours/day)

Food Frequency Questionnaire
Girls 12-16 Years

Predicted BMI

Decile of Consumption or Participation

- Regular Carbonated Soft Drink Consumption (g/day)
- Teams/Exercise Programs (# in past year)
- Television Viewing (# hours/day)

24 hour recall
Boys 12-16 Years

Predicted BMI

Decile of Consumption or Participation

Food Frequency Questionnaire
Boys 12-16 Years

Predicted BMI

Decile of Consumption or Participation

Regular Carbonated Soft Drinks (g/day)
Teams/Exercise Programs (# in past year)
Television Viewing (# hours/day)

24 hour recall