

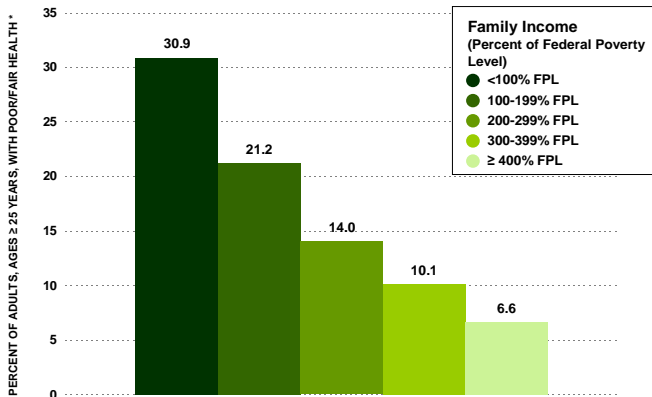
# Inequality in Health

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Econ 350  
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# Inequality in Health

# Health by Income



†In 2005, the Federal Poverty Level for the 48 contiguous states and the District of Columbia was \$16,090 for a family of three and \$19,350 for a family of four.

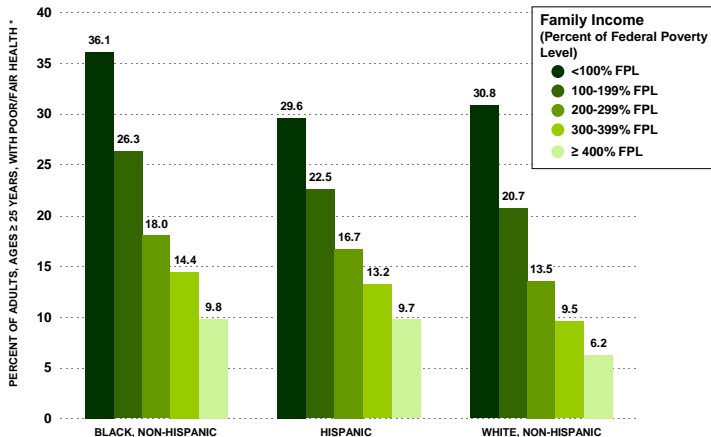
\*Age-adjusted

Source: National Health Interview Survey, 2001-2005.

Proportion of adults with fair/poor health, by family income (percent of the Federal Poverty Line). Source: Robert Wood Johnson Foundation, Commission to Build a Healthier America.



# Health by Income and Race



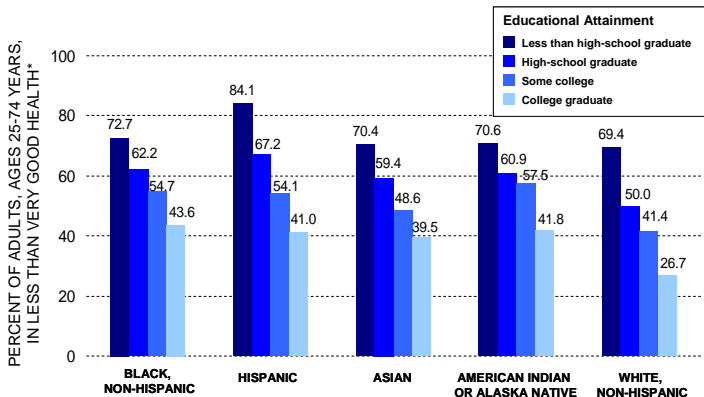
\*Age-adjusted

Source: National Health Interview Survey, 2001-2005.

Proportion of adults with fair/poor health, by family income (percent of the Federal Poverty Line). Source: Robert Wood Johnson Foundation, Commission to Build a Healthier America.



# Health by Education



Source: Behavioral Risk Factor Surveillance System Survey Data, 2005-2007.

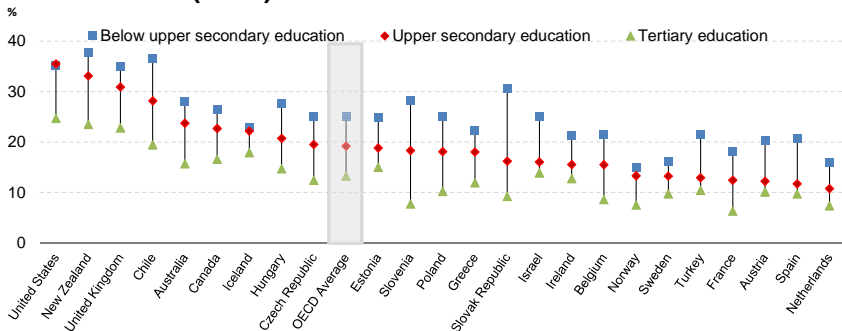
† Based on self-report and measured as poor, fair, good, very good or excellent.

\* Age-adjusted.

Proportion of adults with fair/poor health, by education and race/ethnicity. Source: Robert Wood Johnson Foundation, Commission to Build a Healthier America.



## Proportion of obese adults, by level of educational attainment (2011)

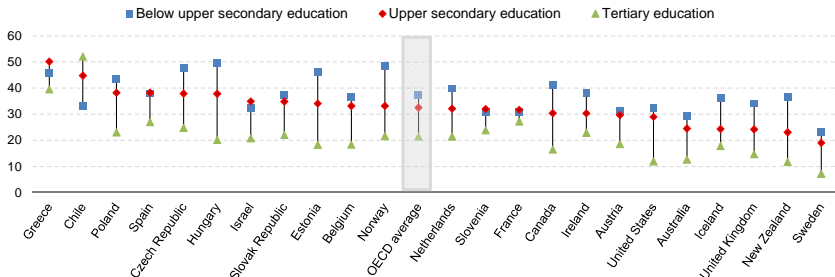


Notes: Obese individuals are defined as those whose Body Mass Index (BMI) is greater or equal to 30.

Data refers to 2011, except for Australia 2010, Austria 2006, Belgium 2008, Canada 2010, Chile 2009-10, the Czech Republic 2008, Estonia 2006, France 2008, Greece 2009, Hungary 2009, Iceland 2007, Ireland 2007, Israel 2010, the Netherlands 2008, Norway 2008, Poland 2009, the Slovak Republic 2009, Slovenia 2007, Spain 2009, Switzerland 2007, Turkey 2008, the United Kingdom 2010.

Countries are ranked in descending order of the proportion of adults aged 25-64 reporting levels of BMI greater or equal to 30, among adults who have attained upper secondary education.

## Proportion of adults who smoke, by level of educational attainment (2011)

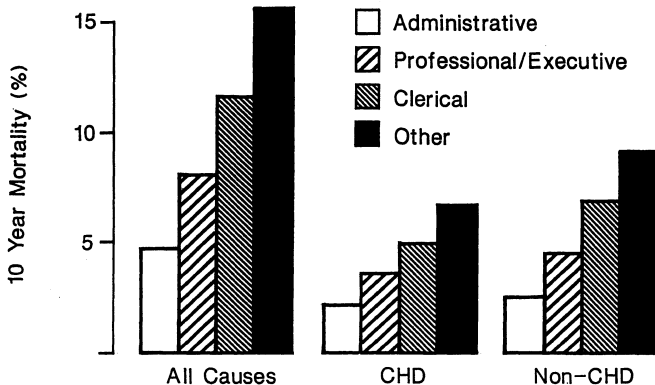


Notes: Adults who smoke are defined as those who currently smoke or otherwise use tobacco products. Data refers to 2011, except for Australia 2010, Austria 2006, Belgium 2008, Canada 2010, Chile 2009-10, the Czech Republic 2008, Estonia 2006, France 2008, Greece 2009, Hungary 2009, Iceland 2007, Ireland 2007, Israel 2010, the Netherlands 2008, Norway 2008, Poland 2009, the Slovak Republic 2009, Slovenia 2007, Spain 2009, Switzerland 2007, Turkey 2008, the United Kingdom 2010.

Countries are ranked in descending order of the proportion of adults aged 25-64 reporting using tobacco regularly, among adults who have attained upper secondary education.

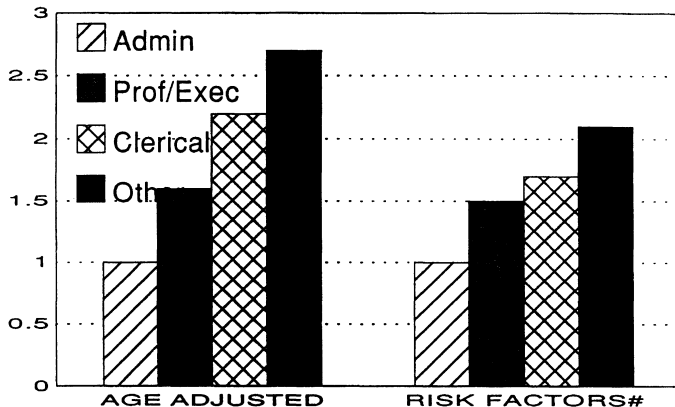
Source: OECD. Table A8.2. See Annex 3 for notes ([www.oecd.org/edu/eag.htm](http://www.oecd.org/edu/eag.htm)).

# Age Adjusted Mortality Rates (percentage) by Grade of Employment for Civil Servants Aged Forty to Sixty-four in the Whitehall Study





## Risk of CHD Death in Ten Years (controlling for age and other risk factors)

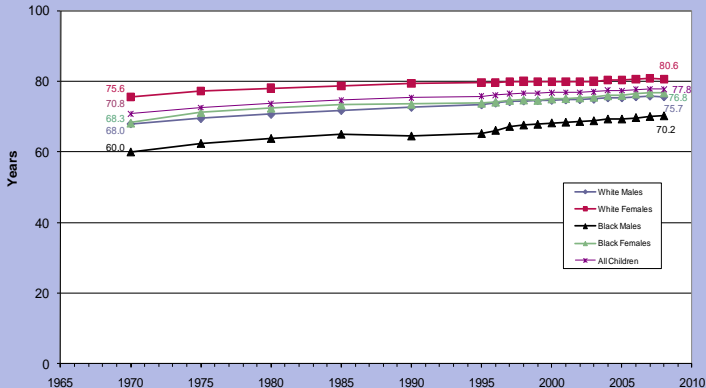


# age, smoking, blood pressure, cholesterol, height, and blood sugar

# Life Expectancy by Race - U.S.

Figure 4

**Estimated Life Expectancy of Newborns, by Year of Birth, Race, and Gender, Selected Years 1970-2008\***



\*2008 data are preliminary.

Source: Data for 1929-1999 from: Arias, E. United States life tables, 2000. National vital statistics reports; vol 51 no 3. Hyattsville, Maryland: National Center for Health Statistics. 2002. Table 12; Data for 2000-2006 from: Heron MP, Hoyert DL, Murphy S, Xu J, Kochanek KD, & Tejada-Vera B. "Deaths: Final Data for 2006" National Vital Statistics Reports 57 (14) [http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_17.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_17.pdf). Data for 2007-2008: Minino AM, Xu J, and Kochanek KD. "Deaths: Preliminary Data for 2008." National Vital Statistics Reports 59(2). [www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_02.pdf).

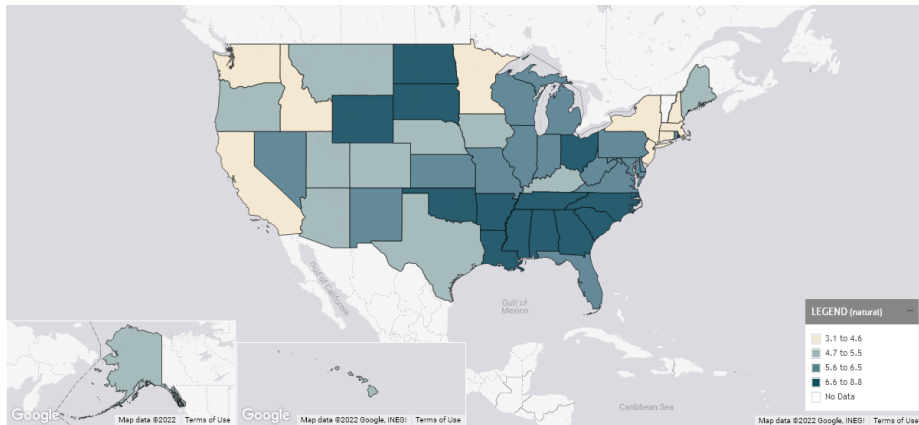


## Infant Mortality and Low Birth Weight

- Infant mortality rates vary widely across countries in US.
- US ranks 30<sup>th</sup> in international rankings.
- Black and American Indian or Alaska Native babies are much more likely than babies in other racial or ethnic groups to die in their first year of life.

# Infant Mortality

## INFANT MORTALITY (RATE PER 1,000) - 2019

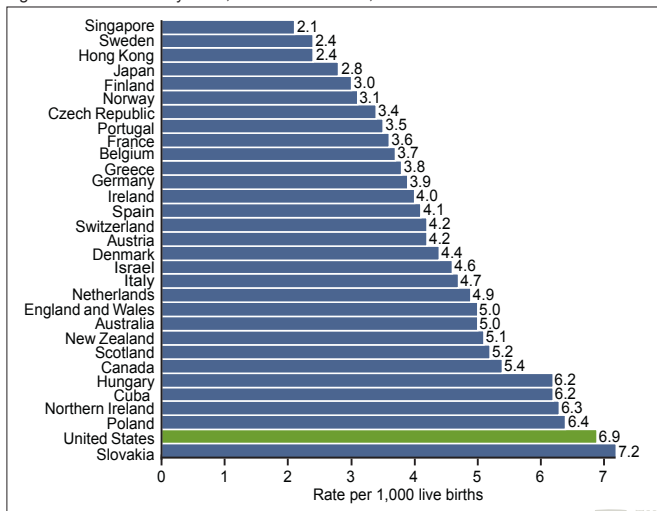


National KIDS COUNT from [datacenter.kidscount.org](https://datacenter.kidscount.org)



# Infant Mortality - International Comparisons

Figure 1. Infant mortality rates, selected countries, 2005



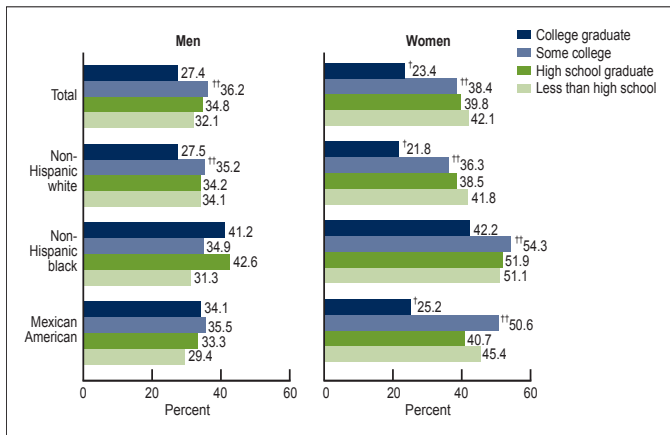
SOURCE: Health, United States, 2008.

- Non-Hispanic black infants are more likely than babies of other races to be low birthweight.
- In 2008, 13.7% of non-Hispanic black infants were low birthweight, compared with 8.2% of Asian and Pacific Islanders, 7.4% of American Indians and Alaska Natives, 7.2% of non-Hispanic whites, and 7.0% of Hispanic infants.

## Adult Health



Figure 3. Prevalence of obesity among adults aged 20 years and over, by education, sex, and race and ethnicity: United States 2005–2008



†Significant trend.

††Significantly different from college graduates.

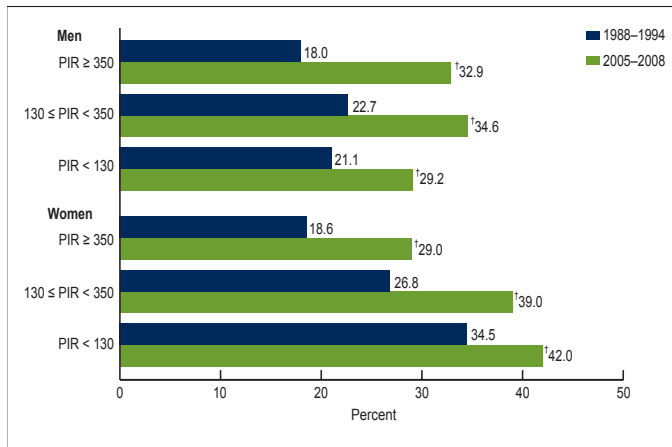
NOTE: Persons of other race and ethnicity included in total.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005–2008.

- Between 1988–1994 and 2007–2008 the prevalence of obesity among adults increased at all income levels.

# Obesity

Figure 4. Prevalence of obesity among adults aged 20 years and over, by poverty income ratio and sex: United States, 1988–1994 and 2005–2008



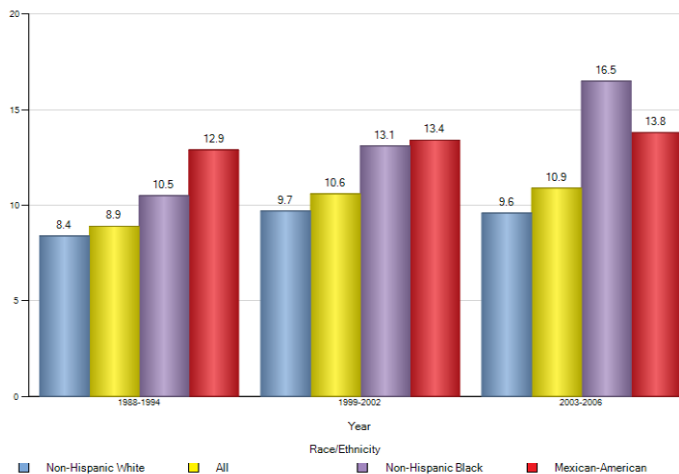
†Significant increase.

NOTE: PIR is poverty income ratio.

SOURCES: CDC/NCHS, National Health and Nutrition Examination Survey, 1988–1994 and 2005–2008.

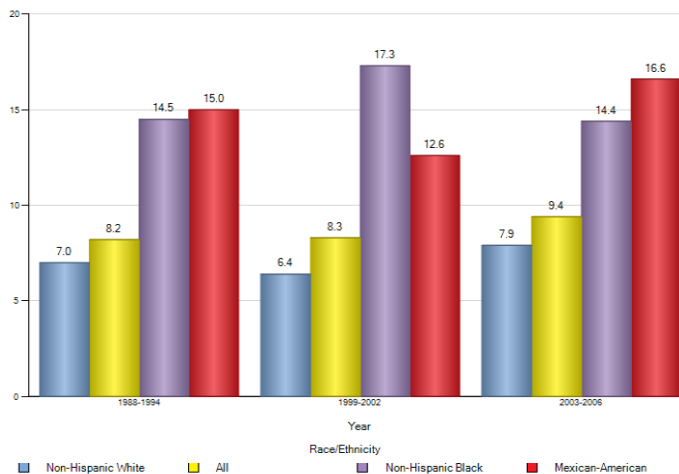
- 1 In the last 20 years, there has been an upward trend in the prevalence of diabetes among all ethnic groups for males and females.
- 2 The increase has been particularly dramatic for non-Hispanic Black males.
- 3 For non-Hispanic Black females, instead, after a peak in 1999-2002, diabetes prevalence has gone back to the rates of 1988-1994.
- 4 Mexican-Americans have the highest prevalence in 2003-2006 for females.

## Diabetes - Males, Age 20+



Source: National Center for Health Statistics (NCHS)

## Diabetes - Females, Age 20+

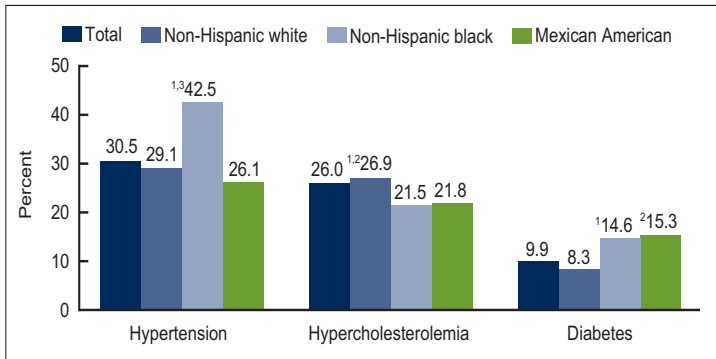


Source: National Center for Health Statistics (NCHS)

- Non-Hispanic Blacks have significantly higher rates of hypertension.
- Non-Hispanic Whites have significantly higher rates of hypercholesterolemia.

# Metabolic Diseases

Figure 1. Age-adjusted prevalence of diagnosed or undiagnosed hypertension, hypercholesterolemia, and diabetes in adults, by race/ethnicity: United States, 1999–2006



1 is the significant difference between non-Hispanic white and non-Hispanic black persons.

2 is the significant difference between non-Hispanic white and Mexican-American persons.

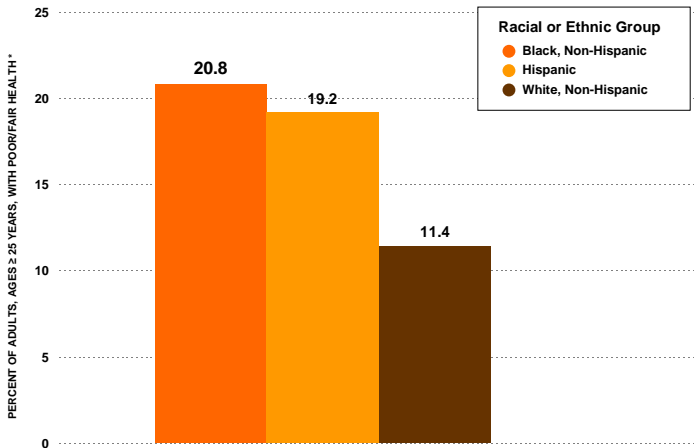
3 is the significant difference between non-Hispanic black and Mexican-American persons.

NOTE: Persons of other race/ethnicity included in total.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Surveys, 1999–2006.



# Health by Race



\*Age-adjusted

Source: National Health Interview Survey, 2001-2005.