

Air Quality

The quality of the ambient air is a major public health concern. Unfortunately, millions of Americans live in areas where pollution in the outdoor air all too often puts their health and even their lives at risk. Studies have tied air pollution to heart disease, cancer, asthma and other respiratory illnesses and even death.

- Over the past 20 years, the air quality levels for pollutants have improved in the United States; however, about 141 million tons of air pollution was released into the air in 2005 in the United States, and approximately 122 million people in the United States lived in counties with pollution levels above the EPA's National Ambient Air Quality Standards (NAAQS).¹
- African Americans are disproportionately exposed to hazardous air pollution. One study found that in 2002, 71 percent of African Americans lived in counties that violated federal air pollution standards, compared to 58 percent of the white population.²
- Pollution from power plants affects all people, but 68 percent of African Americans live within 30 miles of a coal-fired power plant, compared with 56 percent of Whites.³
- One report found that in 2004 more than 19 million, or 50 percent of Hispanics, lived in areas that violated the federal air pollution standard for ozone, one of the major triggers of asthma attacks. In particular, the incidence of asthma in children of Hispanic mothers is two-and-a-half times that of non Hispanic white children.⁴

¹ Environment Protection Agency. Air Trends: Basic Information Fact Sheet. Available at: <http://www.epa.gov/air/airtrends/sixpoll.html>. Accessed on 5/8/07.

² U.S. EPA Green Book <http://www.epa.gov/oar/oaqps/gbook/> Data compiled by MSB Energy Associates.

³ U.S. Census, 2000. Estimated using 1990 racial fractions and 2000 census. Data compiled by MSB Energy Associates.

⁴ Rubin, R. W., 2000. Lovelace Respiratory Research Institute Examines High Rate of Respiratory Illnesses in Hispanics. Available at <http://www.naaonline.org/Newsletter/general%20interest.htm>. Accessed on 5/22/07.

ARDS

Acute respiratory distress syndrome (ARDS) is the rapid onset of breathing failure that can occur in critically ill persons of any age over one year. It is associated with illnesses such as sepsis (a toxic condition resulting from the spread of bacteria), trauma, and severe pulmonary infection. Onset occurs within 24 hours to three days of the original illness or injury. As blood vessels in the lungs are damaged by infection, injury, blood loss or inhalation injury, fluid leaks into the lungs, thereby preventing the transfer of oxygen from the air into the body and carbon dioxide out of the body into the air.

- The incidence of Adult (acute) Respiratory Distress Syndrome (ARDS) has been difficult to determine, but various estimates range from 1.5 to 75 cases per 100,000 persons.¹
- ARDS has a case fatality rate of approximately 30 to 40 percent. Deaths usually result from multi-system organ failure due to the lack of oxygen, rather than lung failure alone.²
- The annual Acute Respiratory Distress Syndrome (ARDS) mortality rate is slowly declining in the United States. Mortality rates have been continuously higher for African Americans than Whites. In 2003, 0.5 out of every 100,000 African Americans died from ARDS compared to 0.7 per 100,000 Whites. A higher percentage of the African American ARDS deaths were reported in younger age categories. Among deaths of persons less than 35 years of age, 27 percent were African-American.³
- Reliable incidence and mortality figures for ARDS are not available for Hispanics/Latinos, Asian and Pacific Islander and American Indian/Alaska Natives.
- The most serious incidence of ARDS in the American Indian population was due to the Hantavirus pulmonary syndrome (HPS) outbreak in 1993. Hantavirus pulmonary syndrome is the name given to an infectious lung disease that first appeared as a “mystery” illness in the Southwest United States in the spring of 1993. By the end of that year, 53 cases had been reported from 14 states.⁴

¹ U.S. Department of Health and Human Services. National Institutes of Health. National Heart, Lung, and Blood Institute. Diseases and Conditions Index. Acute Respiratory Distress Syndrome (ARDS).

² Udobi KF, Childs E, Touijer K. Acute Respiratory Distress Syndrome. American Family Physician. 2003 Jan; TK – 67:315-22.

³ Moss M, Mannino DM. Race and gender differences in acute respiratory distress syndrome deaths in the United States: an analysis of multiple-cause mortality data (1979-1996). Critical Care Medicine; 2002 Aug; 30(8); 1907-9.

⁴ Center for Disease Control and Prevention. Hantavirus Pulmonary Syndrome: Case Count and Descriptive Statistics as of September 1, 2004. Available at: <http://www.cdc.gov/ncidod/disease/hanta/hps/noframes/caseinfo.htm>. Accessed on 1/18/07.

- The Hantavirus infection triggers an illness at first similar to a severe cold or flu, including fever and muscle aches. It quickly leads to severe respiratory difficulties and adult respiratory distress syndrome, which may be fatal. Through 2007, a total of 460 cases of HPS were reported in the United States. Among minority groups, American Indians accounted for about 19% of cases, Hispanics for 14%, African Americans for 2% and Asians for 1%. Whites accounted for 78% of all cases. About three-quarters of the patients have been residents of rural areas.⁵

⁵ Ibid.

Asthma

Asthma is a reversible lung disease caused by the narrowing or blocking of the lung's airways, often as a response to various triggers. Asthma triggers may include cigarette and other smoke, mold, pollens, dust, animal dander, exercise, cold air, household and industrial products, air pollutants and infections.

- African Americans have the highest rates of asthma than any other racial/ethnic group except Puerto Ricans. In 2004, the asthma prevalence rate in African Americans was 11.5 percent higher than among Whites. The prevalence rate was also 81 percent higher in African Americans than in Hispanics except Puerto Ricans.¹
- African Americans represent 12.1 percent of the U.S. population; they account for 25 percent of all asthma deaths.²³
- The age-adjusted death rate for asthma in the African-American population was three times the rate in Whites. African-American females had the highest mortality rate due to asthma in 2003.⁴
- The asthma age-adjusted death rate in African-American males was 3.0 per 100,000 compared with 0.9 per 100,000 in White men, in 2003.⁵
- African Americans are hospitalized for asthma at more than three times the rate of Whites.⁶
- The asthma age-adjusted death rates in Hispanic females (1.4 per 100,000 population) was lower than African-American females (3.4 per 100,000), but slightly higher than White females (1.3 per 100,000).⁷
- Hispanics generally have lower prevalence and death rates due to asthma than African Americans or Whites. Studies have shown, however, that Puerto Ricans

¹ Centers for Disease Control and Prevention. National Center for Health Statistics: National Health Interview Survey, 2004. Calculations performed by the American Lung Association, Epidemiology and Statistics Division.

² United States Census Bureau. American FactFinder: U.S. General Demographics Characteristics: 2005, Available at: http://www.factfinder.census.gov/servlet/ADPTable?_Bm=y&-geo id=01000US&-ds name=AC... Accessed on 5/8/07.

³ Center for Disease Control and Prevention. National Vital Health Statistics. Deaths Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 5/8/07.

⁴ Ibid.

⁵ Ibid.

⁶ Russo, C. A.; Andrews, R. M.; Coffey, R. M.; Racial and Ethnic Disparities in Potentially Preventable Hospitalizations, 2003. Healthcare Cost and Utilization Project (HCUP), July 2006.

⁷ Center for Disease Control and Prevention. National Vital Health Statistics. Deaths Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 5/8/07.



have higher asthma prevalence rates than other Hispanic subgroups and non-Hispanic Whites.⁸

- Mexican Americans have the lowest asthma mortality and prevalence rates compared with all racial/ethnic groups.⁹
- Studies indicate that Asians have lower rates of asthma than most racial/ethnic groups.¹⁰
- American Indians/Native Americans may have equal if not greater rates of asthma than other racial groups.¹¹

⁸ Ledogar RJ, Penchaszadeh A, Garden CCI, Acosta LG. Asthma and Latino cultures: different prevalence reported among groups sharing the same environment. *American Journal of Public Health*. 2000 Jun, 90(2): 929-935.

⁹ National Center for Health Statistics: National Health Interview Survey, 1982-1996, 2001-2004. Calculations Performed by the American Lung Association, Epidemiology and Statistics Unit.

¹⁰ Center for Disease Control and Prevention. National Vital Health Statistics. Deaths Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 5/8/07.

¹¹ Ibid.

COPD

Chronic Obstructive Pulmonary Disease is a term that refers to a large group of lung diseases characterized by a blocking of airflow that prevents normal breathing. Emphysema and chronic bronchitis are the most common forms of COPD and they frequently exist together.

- In 2004, about 3.6 million people in the United States had emphysema and 9 million had chronic bronchitis.¹
- COPD is the fourth leading cause of death in the United States, claiming 122,283 Americans in 2003.²
- Unlike other lung diseases, White Americans in the United States are more prone to COPD than other racial/ethnic groups. Not only are they more at risk to develop the disease, but they are also more likely to die from it.
- African Americans are less likely to have or die from COPD, yet they have more emergency room visits and similar disease severity compared to whites who have smoked cigarettes over a longer period of time and are heavier smokers.³
- Chronic bronchitis prevalence rates for Hispanics (25.0 per 1,000) were significantly lower than both Whites (47.3 per 1,000) and African Americans (37.1 per 1,000) in 2004.⁴
- In 2003, Asians were 60 percent less likely to be hospitalized for COPD than non-Hispanic whites. However, the hospitalization rate of admission for COPD was similar among non-Hispanic whites (1.0), blacks (1.0) and Hispanics (0.85).⁵
- Due to their small numbers in the United States population, there is limited data available on COPD among Native Americans/Alaska Natives. Major national health surveys collect data on this group, but because of small sample sizes, estimates are not statistically accurate. In order to be able to use this data, analysts group “Native American/Alaska Native” with “Asian/Pacific Islanders” in the category of “Other Races”.

¹ National Health Interview Survey, 2004. Calculations by the Epidemiology and Statistics Unit of the American Lung Association.

² Center for Disease Control and Prevention. National Vital Health Statistics. Deaths Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 5/8/07.

³ Chatila, WM, Wynkoop WA, Vance G, and Criner GJ. Smoking Patterns in African Americans and Whites with Advanced COPD. *Chest*. 2003 Jan; 125(1).

⁴ National Center for Health Statistics, National Vital Statistics Report, Deaths Final Data 2003, Vol. 54(13), April, 2006. Available at: <http://www.cdc.gov/nchs/deaths.htm>. Accessed on 4/05/7.

⁵ Russo, C. A.; et al; Racial and Ethnic Disparities in Potentially Preventable Hospitalizations, 2003. Healthcare Cost and Utilization Project (H*CUP), July 2006.

Cystic Fibrosis

Cystic fibrosis (CF) is the second most common life-shortening, childhood-onset inherited disease in the United States; behind sickle cell anemia.¹ The disease causes thick, sticky mucus to form in the lungs, pancreas and other organs. In the lungs, this mucus tends to block the airways, causing lung damage and making breathing difficult. In the pancreas, it clogs the pathways leading to the intestines, interfering with the digestive processes that help break down and absorb food.

- Approximately 30,000 Americans have cystic fibrosis (CF) and approximately 1,000 new cases are diagnosed each year. It occurs equally in male and female babies.²
- CF occurs most commonly in Whites, approximately one in every 3,200 live births compared with one in every 3,900 live births of all Americans.³

Compared with one in 3,200 Whites, one in 14,000 to 17,000 African Americans and one in 11,500 Hispanics have cystic fibrosis. Asian Americans are least likely to have the disease, as only one in 25,500 have cystic fibrosis, and Native Americans have the second highest incidence rate behind Whites (1 in 10,500).⁴

¹ Grosse SC, Boyle CA, Botkin JR et al. Newborn Screening for Cystic Fibrosis. Morbidity and Mortality Weekly Report. Vol. 53(RR13), 2004; 1-36.

² Cystic Fibrosis Foundation. Patient Registry: Annual Data Report 2004.

³ Ibid.

⁴ Ibid.

HIV/AIDS

Human Immunodeficiency Virus (HIV) is the virus that causes Acquired Immunodeficiency Syndrome (AIDS). HIV kills an important kind of blood cell called the CD4 T-lymphocyte. As cells die off, the body becomes more and more vulnerable to other diseases. Germs take this opportunity to invade the body and cause infections. When people with HIV get these infections they develop AIDS.

- A person infected with both HIV and TB has a seven to 10 percent chance per year of developing active TB compared with a 10 percent lifetime chance in people without HIV.¹
- Since the epidemic began in 1981, racial and ethnic minority populations have constituted 61 percent of AIDS cases. Injection drug use is a major factor in the spread of HIV in minority communities. Other factors contributing to the spread include homosexual and heterosexual transmission.²
- In 2005, African Americans accounted for about 49 percent of new HIV/AIDS cases; Whites accounted for 31 percent.³
- 185,988 African Americans were living with AIDS at the end of 2005.⁴
- 19 percent (7,676) of the AIDS cases newly diagnosed in 2005 occurred among Hispanics.⁵
- 19 percent of all persons living with AIDS (78,054) by the end of 2005 were Hispanic.⁶
- In 2005, Asian Americans/Pacific Islanders had the lowest rates of new AIDS prevalence of all racial/ethnic groups (3.6 per 100,000). However, the number of AIDS cases among Asian Americans/Pacific Islanders increased by 29 percent from

¹ Centers for Disease Control. (1999, November). The Deadly intersection between TB and HIV. [online] Available: <http://www.cdc.gov/hiv/pubs/facts/hivtb.htm>. [2003, March 18].

² U.S. Department of Health and Human Services. Public Health Services. Centers for Disease Control and Prevention. HIV AIDS Surveillance Report. Cases of HIV Infection and AIDS in the United States, and Reported Areas 2005; Vol. 17, Revised June 2007 and U.S. Department of Health and Human Services. National Institutes of Health. National Institute of Allergy and Infectious Diseases. NIAID Fact Sheet: HIV Infection in Minority Populations. Dec. 2003.

³ Centers for Disease Control and Prevention. Department of Health and Human Services. HIV/AIDS Surveillance Report. Cases of HIV infection and AIDS in the United States and Dependent Areas, 2005. Vol. 17. Revised June 2007

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

2001 to 2005.⁷

- 4,276 Asian Americans/Pacific Islanders were living with AIDS (one percent of all AIDS cases) by the end of 2005.⁸
- AIDS cases among American Indians/Alaska Natives have increased 10 percent between 2001 and 2005, but they represent less than one percent of all AIDS cases.⁹
- At the end of 2005, nearly 1,581 American Indians/Alaska Natives were living with AIDS.¹⁰

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

Infant Respiratory Distress Syndrome (RDS)

RDS is a life-threatening lung disorder that mainly affects premature infants. Babies with RDS have lungs that are immature and cannot survive outside the womb. It is also known as hyaline membrane disease. Infant respiratory distress syndrome has some similarities with adult respiratory distress syndrome, but its causes and treatments are different. RDS is caused by a lack of pulmonary surfactant, a chemical that normally appears in mature lungs. Surfactant keeps the air sacs in the lungs from collapsing and allows them to inflate with air more easily. In respiratory distress syndrome, the air sacs collapse and prevent the child from breathing properly. Symptoms usually appear shortly after birth and become more severe over time. This condition used to be known as “hyaline membrane disease,” for the glassy appearance of certain membranes in the lungs.

- The incidence of RDS with the amount of time a child stays in the womb, RDS occurs in 60 percent of babies born at less than 28 weeks' gestation, 30 percent of those born at 28 to 34 weeks, and fewer than 5 percent of those born after 34 or more weeks. Full-term pregnancy is defined as lasting between 37 and 42 weeks, but babies born after 35 weeks rarely develop RDS.¹
- Mortality associated with RDS has decreased from nearly 100 percent to less than 10 percent in recent years. Surfactant therapy at birth has led to this dramatic decrease in mortality.² In 2003, RDS affected 23,214 infants.³
- The incidence of RDS among African Americans (6.5 per 100,000) is similar to that of Whites (6.2 per 100,000) in 2003. However, the difference between these races in RDS mortality rates is almost 3-fold. In 2004, 49.4 per 100,000 African American infants died from RDS compared to 17.3 per 100,000 non-Hispanic White infants. It is possible that this difference is due to the higher rate of premature births among African American women. According to the 2003 birth data, 13.5 percent of African American women, as opposed to 7.0 percent of White women, delivered low-birth weight babies (under 2,500 grams).⁴

¹ Hallman, M. Lung Surfactant, Respiratory Failure and Genes. *New England Journal of Medicine*. March 2004, 350;13.

² Hallman, M. Lung Surfactant, Respiratory Failure and Genes. *New England Journal of Medicine*. March 2004, 350;13.

³ Martin J, Hamilton BE, Sutton PD. Births: Final Data for 2003. *National Vital Statistics Reports*, 2005 Dec; 54(2).

⁴ Mathews, T., MacDorman, M., *National Vital Statistics Reports*. Infant Mortality from the 2003 Period Linked Birth/Infant Death Data Set. May 2006, 54(16).



- RDS is the sixth leading cause of deaths among African-American infants under one year of age.⁵
- In 2004, 160 Hispanic infants died from RDS. RDS was ranked the seventh leading cause of death for Hispanic infants under one year of age. The death rate in Hispanic infants was 16.9 per 100,000, 2% lower than the mortality rate among White infants (17.3 per 100,000).⁶
- Puerto Rican infants were twice as likely to die from RDS as Mexican and Central and South American infants.⁷
- RDS was the eighth leading cause of infant deaths among the Asian/Pacific Islander population.⁸

Of all racial/ethnic groups American Indians/Alaska Natives had the fewest number of deaths from RDS (7) in 2002.⁹

⁵ Minino, A, Heron M and Smith B. Center for Disease Control and Prevention. National Vital Statistics Reports. Deaths: Preliminary data for 2004. June 28, 2006. Vol.54 (19). Available at: http://www.cdc.gov/nchs/data/hestat/preliminarydeaths04_tables.pdf#3. Accessed on 3/15/07.

⁶ Ibid.

⁷ Ibid.

⁸ Centers for Disease Control and Prevention. National Vital Statistics Report: Deaths: Preliminary Data for 2004, June 28, 2006. Available at: http://www.cdc.gov/nchs/data/hestat/preliminarydeaths04_tables.pdf#3. Accessed on 3/15/07.

⁹ Center for Disease Control and Prevention. Deaths: Leading Causes for 2002. Vol. 53. No. 17. March 7, 2005. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_17.pdf. Accessed on 3/19/07.



Influenza and Pneumonia

Influenza (flu) is a highly contagious viral infection. It spreads easily from person to person. Influenza in the United States generally strikes between December and March. Pneumonia is a serious infection or inflammation of the lungs. The air sacs in the lungs fill with pus and other liquid, which blocks oxygen from reaching the bloodstream. If there is too little oxygen in the blood, the body's cells cannot work properly, which can lead to death. Pneumonia can have over 30 different causes.

About 10 to 20 percent of the U.S. population gets sick with influenza each year. Influenza is responsible for an average of 200,000 hospitalizations and 36,000 deaths in the United States each year. Influenza deaths have increased substantially in the last two decades, in part because of the aging population.¹

In 2004, influenza and pneumonia combined were ranked as the eighth leading cause of death in the United States and the fifth leading cause in people over 65. Close to 90 percent of deaths due to influenza or pneumonia occur in people aged 65 and over.²

According to National Health Interview Survey data Influenza and pneumococcal vaccination rates among persons 65 years and older are significantly below the national objective of 90%, particularly among blacks and Hispanics. A national telephone survey among adults aged 65 years and older, during the 2004-2005 influenza season found that influenza vaccine coverage was 67.8% and pneumococcal vaccination was 60%.³

Non-Hispanic Blacks were 7 percent more likely to die from influenza or pneumonia than non-Hispanic Whites in 2003. Influenza/pneumonia ranked as the eleventh leading cause of death in the African-American population over 65. Approximately 72.5 percent of all influenza and pneumonia deaths in African Americans occurred in this age group.⁴

Hispanics have the lowest age-adjusted mortality rates due to influenza and pneumonia among all races/ethnicities. Hispanics were almost 6 percent less likely to die from influenza or pneumonia than non-Hispanic Whites in 2003. However, in 2003 influenza/pneumonia ranked as the ninth leading cause of death in Hispanics and the sixth in the over 65 Hispanic

¹ Centers for Disease Control and Prevention, Improving, Pneumococcal Polysaccharide and Hepatitis B Vaccination Coverage Among Persons Aged >65 Years at High Risk. *Morbidity and Mortality Weekly Report*. April 2005, No. 54(RR05):1-11.

² Ibid.

³ Singleton, J.A.; Santibanez, T.A.; Wortley, P.M.; Influenza and Pneumococcal Vaccination of Adults aged 65 and Over: Racial/ethnic Differences; *American Medical Journal*; Dec. 2005(29):412-20

⁴ National Center for Health Statistics. Centers for Disease Control and Prevention. Deaths: Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 3/19/07 and National Center for Health Statistics. Centers for Disease Control and Prevention. Deaths: Leading Causes for 2002. Vol. 53. No. 17. March 7, 2005. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_17.pdf. Accessed on 3/19/07.



population.⁵

Influenza and pneumonia ranked as the sixth leading cause of death among Asians/Pacific Islanders and the fourth leading cause of death in those over 65.⁶

Influenza and pneumonia ranked as the eighth leading cause of death among American Indians/Alaska Natives and the sixth leading cause of death in those over 65.⁷

⁵ National Center for Health Statistics. Centers for Disease Control and Prevention. Deaths Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 3/19/07.

⁶ Ibid.

⁷ Ibid.

Lung Cancer

Lung cancer is the uncontrolled growth of abnormal cells in one or both of the lungs. These abnormal cells reproduce rapidly and never grow into normal lung tissue. Lumps of cancer cells (tumors) then form and disturb the lung, making it difficult to work properly.

Lung cancer is the leading cause of cancer-related deaths for both men and women. In 2007, an estimated 213,380 new cases of lung cancer and an estimated 160,390 deaths from lung cancer occurred in the United States.¹

Smoking is responsible for 90 percent of lung cancer deaths.²

Lung cancer is the second most common cancer among African-American men, third among women, and kills more African Americans than any other cancer.³

African-American men are at least 37 percent more likely to develop lung cancer than White men. Lung cancer incidence rates among African-American women are equal to that of White women, although rates of smoking are much lower.⁴

Between 2000 and 2003, African-American men had an age-adjusted lung cancer death rate that was 12 percent higher than that for White males. The age-adjusted death rate in females was similar between both races.⁵

The lung cancer survival rate is only 13 percent for African Americans and 16 percent for Whites.⁶

Lung cancer death rates are about 2.5 times higher for Hispanic men than women.⁷

Studies have shown that lung cancer death rates are higher among Cuban-American than Puerto Rican and Mexican men.⁸

¹ American Cancer Society. Cancer Facts and Figures 2007. Available at:

<http://www.cancer.org/downloads/STT/CAFF2007PWSecured.pdf>. Accessed on 5/31/07.

² Centers for Disease Control and Prevention. Economics Facts About U.S. Tobacco Use and Tobacco Production Fact Sheet. May 2006. Available at:

http://www.cdc.gov/tobacco/factsheets/EconomicTobaccoProduction_factsheet.htm.

³ American Cancer Society. Cancer Facts and Figures for African Americans, 2007-2008. Available at:

<http://www.cancer.org/downloads/STT/CAFF2007AAacspdf2007.pdf>. Accessed on 3/31/07.

⁴ Ibid.

⁵ American Cancer Society. Cancer Facts and Figures for African Americans, 2007-2008. Available at:

<http://www.cancer.org/downloads/STT/CAFF2007AAacspdf2007.pdf>. Accessed on 3/31/07.

⁶ National Cancer Institute. SEER Cancer Statistics Review 2000-2003. Lung and Bronchus (Invasive) Age-Adjusted SEER Incidence and U.S. Death Rates.

⁷ American Cancer Society. Cancer Facts and Figures for Hispanics/Latinos, 2006-2008. Available at:

<http://www.cancer.org/downloads/STT/CAFF2006HispPWSecured.pdf>. Accessed on 3/31/07.

⁸ Ibid.



Among Asian/Pacific Islander men, lung cancer is the second most common cancer and among women, the third.⁹

Lung cancer is the leading cause of cancer death among American Indians and Alaska Natives age 55 years and older, yet of over 200 native languages spoken today most, if not all, do not include a word for “cancer”.¹⁰

⁹ U.S. Department of Health and Human Services. Tobacco use among U.S. racial/ethnic minority groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics: a report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 1998 and Tsark J. Cancer in Native Hawaiians. *Pacific Health Dialog*. 1998;5(2): 315-327.

¹⁰ Center for Disease Control and Prevention. National Vital Health Statistics. Deaths Leading Causes for 2003. Available at: http://www.cdc.gov/nchs/data/hestat/leadingdeaths03_tables.pdf#3. Accessed on 3/19/07.

Obstructive Sleep Apnea

Obstructive sleep apnea is a disorder in which the throat repeatedly narrows, either partially or totally, blocking the airway during sleep. This blocking of the airways can cause a person to stop breathing or breathe uneasily. The partial blocking leads the person to snore loudly and the apnea causes them to wake up often. As a result, affected persons have unrestful sleep and excessive daytime sleepiness.

- Sleep apnea occurs in all age groups and both sexes, but it is more common in males and in those over the age of 40.¹
- Estimates suggest that as many as 12 million Americans have sleep apnea.²
- Risk factors for sleep-disordered breathing include being overweight and having heart failure, underactive thyroid or some physical abnormality in the nose, throat or other parts of the upper airway. Sleep apnea also seems to run in some families, suggesting a possible genetic basis.
- African-American children were more than three times as likely as children of other races to develop sleep-disordered breathing.³
- Elderly African Americans are more than twice as likely as elderly Whites to suffer from sleep-disordered breathing.⁴
- Data on Hispanics are limited, but Mexican Americans may have a higher prevalence of sleep apnea than other Hispanic subgroups.

¹ U.S. Department of Health and Human Services. National Institutes of Health. National Heart, Lung, and Blood Institute. Sleep Apnea. What is Sleep Apnea? February 2006. Available at: http://www.nih.gov/health/dci/Diseases/SleepApnea_WholsAtRisk.html. Accessed on 2/14/07.

² Ibid.

³ Redline S, Tishler PV, Schluchter M, Aylor J, Clark K, Graham G. Risk factors for sleep-disordered breathing in children. *American Journal of Respiratory and Critical Care Medicine*. 1999 May; 159(5): 1527-1532.

⁴ Ancoli-Israel S, Klauber MR, Stepnowsky C, Estline E, Chinn A, Fell R. Sleep-disordered breathing in African-American elderly. *American Journal of Respiratory and Critical Care Medicine*. 1995; 152(6, 12): 1946-1949.

Occupational Lung Disease

Occupational lung disease is the number-one cause of work-related illness in the United States in terms of frequency, severity and preventability. It is mainly caused by long-term exposure to irritating or toxic agents in the workplace (mineral and/or organic dusts, smoke, fumes, gases, mists, sprays and vapors).

- Worldwide, about 20 to 30 percent of the male and 5 percent to 20 percent of the female working-age population may have been exposed to agents that cause cancer in the lungs during their working lives.¹
- Occupational asthma is the most prevalent occupational lung disease in the United States. Approximately 15 to 23 percent of asthma cases in the United States are due to occupational exposures.²
- The direct costs of occupational injuries and illnesses in the U.S. are estimated at \$45.8 billion and indirect costs range up to \$229 billion.³ In 2005, more than 4.2 million new nonfatal injuries and illnesses were reported in the private industry. Also, 5,702 work related injury deaths or approximately 16 per day occurred in the U.S. that year.⁴
- In 2005, African Americans made up 29.3 percent of the 70,000 textile workers. Exposure to dusts generated while processing cotton can cause byssinosis, a chronic condition that results in blocked airways and impaired lung function. Between 1990 and 1999, African-American males had an age-adjusted mortality rate due to byssinosis that was 80 percent greater than White males.⁵
- It is estimated that African Americans accounted for 27.3 percent of the 2.1 million of the building cleaning jobs, which involve exposure to noxious chemicals and

¹ World Health Organization, World Health Report 2002. Available at: <http://www.who.int/whr/2002/en/> Accessed 4/09/07.

² Centers for Disease Control and Prevention. Worker Health Chartbook. Available at <http://www.cdc.gov/niosh/docs/chartbook/>. Accessed on 3/14/07.

³ United States Department of Health and Human Services. Progress Review: Occupational Safety and Health. Healthy People 2010. Available at: <http://www.healthypeople.gov/data/2010prog/focus20/>. Accessed on 3/30/07.

⁴ United States Department of Labor. Fatal occupation injuries by event or exposure, 2000-2005. Available at <http://www.bls.gov/news.release/cfoi.t01.htm>. Accessed on 3/14/07.

⁵ U.S. Census Bureau. *Statistical Abstract of the United States: 2006*: Employed Civilians, by Occupation, Sex, Race, and Hispanic Origin, 2005, Table. 602 Available at: <http://www.bls.gov/cps/home.htm>>. Accessed on 4/02/07.

biological contaminants.⁶

- African-American males were twice as likely to die of silicosis – a lung disease caused by inhaling silicon dioxide or crystalline silica dust without adequate protection – as White males between 1990 and 1999.⁷
- Between 1969 and 1993, Navajo uranium miners were 28 times more likely to develop lung cancer than Navajos not exposed to uranium.⁸

⁶ Ibid.

⁷ Work-Related Lung Disease Surveillance Report 2002. Division of Respiratory Disease Studies, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention. May 2003.

⁸ United States Census Bureau. *Statistical Abstract of the United States: 2006*. Labor Force, Employment, and Earnings. Table No. 608 Occupations of the Employed by Selected Characteristics: 2004. Available at: <http://www.bls.gov/cps//home.htm>>. Accessed on 4/2/07.

Respiratory Syncytial Virus (RSV)

Respiratory syncytial virus (RSV) is the most common cause of severe respiratory infections in children. RSV may cause bronchiolitis, an inflammation of the small airways, or cold-like illnesses. Widespread outbreaks typically occur during the winter months, peaking in January and February. RSV is spread through close contact with infected persons or contact with contaminated surfaces or objects. RSV spreads easily among children during outbreaks, and most children will have evidence of RSV infection in their blood by the time they reach two years of age.

- RSV begins most frequently with fever, runny nose, cough and sometimes wheezing. During their first RSV infection, between 25 and 40 percent of infants and young children have signs or symptoms of bronchiolitis or pneumonia, and 0.5 to 2 percent require hospitalization. Most children recover from the illness in 8 to 15 days, but RSV can be more serious in infants and children born prematurely (35 weeks gestation or less).¹
- High-risk children who are infected with RSV disease often need to be hospitalized. In the United States, more than 51,000-82,000 young children (the majority of them under 6 months old) are hospitalized due to RSV and approximately 2 percent die each year.²
- More than 78 percent of RSV-associated underlying respiratory and circulatory deaths occurred among people aged 65 or older.³
- A recent study found that a child's age at the time of infection and whether that child lives with a smoker could mean the difference between the sniffles and the intensive care unit. The study also reported that African-American children tended to have less serious infections than Caucasian children. The researchers found the results surprising because RSV infection is linked to childhood asthma. African-Americans are more likely to suffer from asthma and to be hospitalized because of

¹ Centers for Disease Control and Prevention, Brief Report: Respiratory Syncytial Virus Activity in the United States, 2004-2005. *Morbidity and Mortality Weekly Report*. 2005 Dec;54(49):1259-1260. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5549a3.htm. Accessed on 2/17/07.

² Ibid.

³ Thompson WW, Shay DK, Weintraub E, Brammer L, Cox N, Anderson LJ, Fukuda K. Mortality associated with influenza and respiratory syncytial virus in the United States. *Journal of the American Medical Association*. 8 Jan 2003; 289(2): 179-186.

it. It was hypothesized that African-American children would be at increased risk for serious RSV infection. However, the study proved just the opposite.⁴

- A study in California measured the rate of infant hospitalizations related to respiratory syncytial virus, and investigated risk factors of RSV hospitalizations by race/ethnicity and payer source. The study reported that between 1999 and 2002, an average of 12.3% of all infant hospitalizations had an RSV-associated illness, making RSV the leading cause of infant hospitalizations. The crude odds ratios for RSV associated hospitalizations by ethnicity were: non-Hispanic African-Americans 2.8 (2.7-3.0), Hispanics 2.7 (2.6-2.8), non-Hispanic Whites 2.3 (2.2-2.4) and American Indians 1.6 (1.3-2.0). RSV hospitalization rates were highest among African American and MediCal insured infants. Charges totaled approximately \$500 million over the study period.⁵
- American Indians and Alaskan Natives have been documented to have high rates of RSV. One study found that the age-adjusted RSV-specific hospitalization rates among Navajo and White Mountain Apache children younger than 1 year to be three times higher than the rates reported for similarly aged children in the general U.S. population and more than twice the rate of inner-city Medicaid children.⁶
- A recent study found that American Indian and Alaska Native infants living in the Southwest and Alaska regions are at especially high risks for hospitalization due to RSV infection. In 2000–2001, RSV disease was listed as a diagnosis for 14.4% of all American Indian/ Alaska Native infant hospitalizations, with bronchiolitis attributable to RSV infection (12.2%) being among the top 5 listed diagnoses. The RSV-specific hospitalization rate was 34.4 per 1,000 infants for American Indian and Alaska Native infants and 27.4 per 1,000 births for the general US infant population. The hospitalization rates for American Indian and Alaska Native infants living in the Alaska and Southwest regions (70.9 and 48.2 per 1,000 infants, respectively) were much higher than the overall rate for US infants.⁷

⁴ Bradley JP, Bacharier LB, Bonfiglio J, Schechtman KB, Strunk R, Storch G, Castro M. Severity of Respiratory Syncytial Virus Bronchiolitis is Affected by Cigarette Smoke Exposure and Atopy. *Pediatrics*, vol. 115; pp. 7-14, Jan. 2005.

⁵ Laura R. Sangaré, MPH, Shabbir Ahmad, DVM MS PhD, Eugene R. Takahashi, PhD, and Michael Curtis, PhD. Maternal, Child and Adolescent Health Branch, California Department of Health Services, Risk factors, length of stay, and charges associated with respiratory syncytial virus (RSV) infant hospitalizations in California: 1999-2002.

⁶ Bockova J, O'Brien KL, Oski J, Croll J, Reid R, Weatherholtz RC, Santosham M, Karron RA. Respiratory syncytial virus infection in Navajo and white mountain Apache children. *Pediatrics*. 2002 Aug; 110(2).

⁷ Respiratory Syncytial Virus Hospitalizations Among American Indian and Alaska Native Infants and the General United States Infant Population: *Pediatrics* Vol. 114 No. 4 October 2004, pp. e437-e444 (doi:10.1542/peds.2004-0049).

Sarcoidosis

Sarcoidosis is a disease that causes inflammation of the body's tissues. This inflammation produces small lumps, called granulomas, that can be either inside the body or on its exterior, as sores on the face or shins. Sarcoidosis can occur in almost any organ and always affects more than one of the body's systems, but it is most frequently found in the lungs. Pulmonary sarcoidosis can decrease lung volume, which is the amount of air the lungs can hold, and it can cause abnormal lung stiffness.

- Sarcoidosis is known to be the most common fibrotic lung disorder in the United States. That is, it is the most common lung disease that involves scarring of the lung.
- Sarcoidosis affects people between 20-40 years of age. Even though, it primarily occurs in adults under 40, it can occur in a person of any age. Historically, the peak incidence is in the third decade of life.¹ New research suggests that a second peak incidence occurs in patients over 50 years of age. Additionally, sarcoidosis appears to be more common in nonsmokers and women than in smokers or men.²
- African Americans, Swedes, and Danes have the highest prevalence rates of sarcoidosis in the world. In the U. S., the lifetime risk of sarcoidosis is approximately three times higher among African Americans than Whites.³
- Because sarcoidosis can escape diagnosis or be mistaken for several other diseases, the prevalence of disease can only be estimated. Today approximately 5 per 100,000 Whites and 40 per 100,000 African Americans have the disease in the U.S. However, both gender and ethnicity may impact disease risk as African American women are twice as likely to develop sarcoidosis than African American men.⁴
- Sarcoidosis is rarely reported in Central and South America. In Spain, only 1.2 per 100,000 persons is infected.⁵
- Puerto Ricans and Mexicans are more much more likely than other Hispanic subgroups to report sarcoidosis. Like Whites, Puerto Ricans and Mexicans, particularly women of childbearing age, have a greater likelihood of developing a skin condition with lesions known as *Erythema nodosum*. The lesion consists of raised,

¹ American Thoracic Society Statement on Sarcoidosis. *American Journal of Respiratory Critical Care Medicine*. 1999 Aug. 160(2).

² Baughman RP, Teirstein AS, Judson MA et al. Clinical Characteristics of Patients in a Case Control Study of Sarcoidosis. *American Journal of Respiratory Critical Care Medicine*. 2001. v164.

³ Rybicki BA, Major M, Popovich J, Maliarik MJ and Iannuzzi, MC. Racial Differences in Sarcoidosis Incidence: a 5-Year Study in a Health Maintenance Organization. *American Journal of Epidemiology*. 1997. 145: 234-241.

⁴ National Health Lung, Blood Institute. What is Sarcoidosis? Fact Sheet. Available at: http://www.nhlbi.nih.gov/health/dci/Diseases/sarc/sar_what.html. Accessed on 3/23/07.

⁵ Mana JF, Badrinas F, Morera J, Fite E, Manresa F, Fernandez-Nogues F. Sarcoidosis in Spain. *Sarcoidosis*. 1992. 9:118-122.

red, tender bumps or nodules on the front side of the legs, and nearby joints are usually sore and swollen. Erythema nodosum usually goes away within 6 to 8 weeks.⁶

- Studies have shown that sarcoidosis of the heart and eyes appear to be more common in Japan, where the most frequent cause of death for sarcoid patients is related to heart problems. In other countries, mortality is due most commonly to lung failure.⁷
- The disease rarely occurs in American Indians and Alaska Natives.

⁶ American Thoracic Society Statement on Sarcoidosis. *American Journal of Respiratory Critical Care Medicine*. 1999 Aug. 160(2).

⁷ Ibid.



Tobacco Use

Tobacco use remains the number-one cause of preventable disease and death in the United States. Cigarette smoke contains more than 4,800 chemicals, 69 of which are known to cause cancer. About 8.6 million people in the United States have at least one serious illness caused by smoking, and exposure to tobacco smoke is projected to contribute to some 438,000 deaths each year.¹

Among current smokers, chronic lung disease accounts for 73 percent of smoking-related conditions and, among former smokers, 50 percent of smoking-related conditions.²

As smoking rates decline among the non-Hispanic White population, the tobacco industry has been specifically targeting cultural and ethnic minorities through product development, packaging, pricing, advertising and promotional activities. From 2002-2003, total advertising and promotion by cigarette companies was \$15.15 billion dollars, the most ever reported by the major cigarette manufacturers.³

Overall, 21.5 percent of non-Hispanic Blacks smoke compared to 21.9 percent of non-Hispanic Whites. Since 1950, African American men have had considerably higher rates of cigarette smoking than White males. In recent years, smoking prevalence among African American men has been similar to that among White men. In 2005, 26.7 percent of non-Hispanic Black men smoked compared to 24.0 percent of non-Hispanic White men.⁴ In 2005, 16.8 percent of African American high school students smoked any form of tobacco.⁵

In 2005, 16.2 percent of Hispanics smoked compared to 21.9 percent of non-Hispanic Whites. Hispanics smoke less than all racial/ethnic groups except for Asians. This is mainly due to the very small proportion of Hispanic women who reported smoking. Only 11.1 percent of Hispanic females reported smoking, compared to 21.1 percent of Hispanic men.⁶

Studies suggest that among Hispanic subgroups, Puerto Ricans have higher smoking prevalence rates than Mexican Americans, Cuban Americans, Central-South Americans and other Latinos. One recent study found that Puerto Rican and Cuban smokers were much

¹ Center for Disease Control and Prevention. Morbidity and Mortality Weekly Report. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses---United States, 1997-2001. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5425a1.htm>. Accessed on 4/18/07.

² Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report Cigarette Smoking – Attributable Morbidity – United States, 2000.. 2003 Sept; 52(35): 842-844.

³ Federal Trade Commission: Cigarette Report to Congress, 2003. Issued August 2005.

⁴ Center for Disease Control and Prevention. Morbidity and Mortality Weekly Report. Tobacco Use Among Adults---U.S., 2005. Vol. 42(42); 1145-1145, Oct. 2006. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5542a1.htm>. Accessed on 4/19/07

⁵ Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report. Youth Risk Behavior Surveillance, U.S. 2005. Vol 55(SS05); 1-108, June, 2006.

⁶ Center for Disease Control and Prevention. Morbidity and Mortality Weekly Report. Tobacco Use Among Adults---U.S., 2005. Vol. 42(42); 1145-1145, Oct. 2006. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5542a1.htm>. Accessed on 4/19/07.



more likely to be heavy smokers. The study also reported that Puerto Rican women were nearly twice as likely to smoke as women of other Hispanic groups.⁷

In 2005, 13.3 percent of Asian Americans smoked compared to 21.9 percent of non-Hispanic Whites, 21.5 percent of non-Hispanic Blacks, 32 percent of American Indians/Alaska Natives and 16.2 percent of Hispanics. Only 6.1 percent of Asian American females smoke. This rate is almost half of the smoking rate in Hispanic women and approximately one third of the rate in non-Hispanic Black and White women. Asian American males have smoking rates similar to men of other racial and ethnic groups.⁸

Although, Asian Americans have the lowest smoking prevalence rates among adults of all racial and ethnic groups, studies show they suffer from involuntary secondhand smoke exposure. A recent study explored differences in knowledge, attitude and tolerance of exposure to secondhand smoke among Asian American subgroups in the Delaware Valley region of Pennsylvania and New Jersey. Exposure to secondhand smoke remains a common public health hazard among Asian Americans, with 38% reporting exposure at home and 40% at their workplace. Both knowledge and tolerance levels differed significantly by ethnic groups, gender, education and smoking status.⁹

American Indians and Alaska Natives continue to maintain high rates of non-traditional tobacco use, especially cigarette smoking, despite continuous warnings about the addictive nature of nicotine and its' association with smoking-related diseases. The population in the Northern Plains overall have higher rates of current smoking while the Southwest tribes overall have lower smoking prevalence compared to the general U.S. population. The reason for the differences is unclear, but the fact that smoking-related diseases are leading causes of death in these specific American Indian populations, makes understanding each tribe's differences necessary when developing culturally appropriate prevention and treatment programs.¹⁰

Research documenting tobacco use prevalence among Lesbian, Gay, Bisexual and Transgender (LGBT) populations indicate that gay men and lesbians tend to smoke more than their heterosexual counterparts.¹¹

⁷ Perez-Stable EJ, Ramirez A, Villareal R, Talavera GA, Trapido E, Suarez L, Marti J, McAlister A. Cigarette smoking behavior among U.S. Latino men and women from different countries of origins. *American Journal of Public Health*. 2001 Sept; 91(9): 1424-1430.

⁸ Center for Disease Control and Prevention. Morbidity and Mortality Weekly Report. Tobacco Use Among Adults---U.S., 2005. Vol. 42(42); 1145-1145, Oct. 2006. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5542a1.htm>. Accessed on 4/19/07.

⁹ GX, M.; Tan, Y.; Fang, C.Y.; Toubbeh, JI., Shive, S.E.: Knowledge, attitudes and behavior regarding secondhand smoke among Asian Americans. Department of Public Health, Temple University, Philadelphia, PA. *Preventive Medicine*. Vol. 41(2):446-453, August 2005.

¹⁰ Henderson, P.N.; Jacobsen, C.; Beals, J.; and the AI-SUPERPPF Team., Correlates of Cigarette Smoking Among Selected Southwest and Northern Plains Tribal Groups: The AI-SUPERPPF Study. *American Journal of Public Health*, Vol. 95(5), May 2005.

¹¹ American Legacy Foundation. *Final Report for the Gay, Lesbian, Bisexual and Transgender Forum*. August 2000. Available at: <http://www.lgbtcenters.org/documents/alfinalreport.pdf>. Accessed on 4/24/07.

Tuberculosis

Tuberculosis is a long-term bacterial infection that usually affects the lungs, although other organs are sometimes involved. The disease is spread from person to person through the air. Infection usually requires close contact with someone with active TB over a long period of time.

Since 1993, the number of TB cases has decreased by approximately 44 percent. During 2005, 14,097 TB cases were reported in the United States (a case rate of 4.8 per 100,000), a record low.

Despite the decline in TB nationwide, rates among communities of color and foreign-born persons have increased. These groups account for over 80 percent of all TB cases. The TB incidence rate was 20 times greater in Asians (25.8 per 100,000), 12.5 times greater in Native Hawaiians or Other Pacific Islanders (16.8 per 100,000), over 8 times greater in non-Hispanic Blacks (10.9 per 100,000), 7 times greater in Hispanics (9.5 per 100,000), and over 5 times greater in American Indians/Alaska Natives (6.9 per 100,000) than in non-Hispanic Whites (1.3 per 100,000). Several factors likely contribute to the uneven burden on minority groups. Unequal distribution of TB risk factors such as HIV infection, and low socioeconomic status, particularly crowding, contribute to increased risk for TB.¹

Tuberculosis cases reported among persons born outside the United States and its territories (i.e., foreign-born persons) account for 55.0 percent of total reported cases in 2005. The TB case rate among foreign-born persons was almost 9 times greater than that for U.S.-born persons. Most cases of active TB disease among foreign-born persons residing in the United States result from infection with the tuberculosis germ in the person's country of birth. Of the foreign-born cases reported in 2005, five countries (Mexico, Philippines, Vietnam, India and China) accounted for approximately 55.0 percent of these cases.²

Non-Hispanic Blacks accounted for 28.0 percent of TB cases in 2005. They accounted for 45 percent of U.S.-born cases and 14 percent of cases among foreign-born persons. Also, non-Hispanic Blacks accounted for the highest percentage of TB cases in the U.S.-born population.³

In 2005, 15 states and the District of Columbia reported that the most TB cases occurred in non-Hispanic Blacks. Nebraska reported 17 cases of TB in both non-Hispanic Blacks and Hispanics, while Rhode Island reported 22 TB cases in both non-Hispanic Blacks and Whites.⁴

¹ Centers for Disease Control and Prevention. Reported Tuberculosis in the United States, 2005. Atlanta, GA:U.S. Department of Health and Human Services, CDC, September 2006.

² Ibid.

³ Ibid.

⁴ Ibid.



In 2005, there were 4,043 TB cases diagnosed among Hispanics. The TB case rate in Hispanics (9.5 per 100,000) was about 7 times higher than in non-Hispanic Whites (1.3 per 100,000).⁵

In 2005, 91 percent of TB cases in Asians occurred in cities with populations greater than 500,000 persons. It was also observed that 79 percent of cases occurring in Hispanics and in non-Hispanic Blacks, 73 percent of cases in Native Hawaiian/Pacific Islanders, 64 percent of cases in non-Hispanic Whites and 29 percent of cases in American Indian/Alaska Natives were also in large metropolitan areas.⁶

TB is a disease that affects Asian and Native Hawaiian/Pacific Islander communities disproportionately. The highest TB case rates in the US population occur in persons of Asian and Native Hawaiians/Other Pacific Islander descent (25.8 and 13.8 per 100,000 respectively).⁷

Native Americans/Alaska Natives accounted for 1 percent of TB cases in 2005. Since 1993, the TB case rate in American Indians has decreased by 50.4 percent. However the TB case rate is over 5 times greater in American Indians/Alaska Natives (6.9 per 100,000) than in non-Hispanic Whites (1.3 per 100,000).⁸

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.