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Appendix II: Definition and Methods

Race—In 1977, the Office of Management and Budget (OMB) issued Race and Ethnic Standards for Federal Statistics and Administrative Reporting to promote comparability of data among federal data systems. The 1977 Standards called for the federal government's data systems to classify individuals into the following four racial groups: American Indian or Alaska Native, Asian or Pacific Islander, black, and white. Depending on the data source, the classification by race was based on self-classification or on observation by an interviewer or other person filling out the questionnaire.

In 1997, revisions were announced for classification of individuals by race within the federal government's data systems (Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Fed Regist 1997 October 30;62:58781-90). The 1997 Standards have five racial groups: American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or Other Pacific Islander, and white. These five categories are the minimum set for data on race in federal statistics. The 1997 Standards also offer an opportunity for respondents to select more than one of the five groups, leading to many possible multiple-race categories. As with the single-race groups, data for the multiple-race groups are to be reported when estimates meet agency requirements for reliability and confidentiality. The 1997 Standards allow for observer or proxy identification of race but clearly state a preference for self-classification. The federal government considers race and Hispanic origin to be two separate and distinct concepts. Thus, Hispanics may be of any race. Federal data systems were required to comply with the 1997 Standards by 2003.

National Vital Statistics System—Most of the states in the Vital Statistics Cooperative Program are still revising their birth and death records to conform to the 1997 standards on race and ethnicity. During the transition to full implementation of the 1997 Standards, vital statistics data will continue to be presented for the four major race groups—white, black or African American, American Indian or Alaska Native, and Asian or Pacific Islander—in accordance with 1977 Standards.

Mortality File—Information about the race and Hispanic ethnicity of the decedent is reported by the funeral director as

provided by an informant, often the surviving next of kin, or, in the absence of an informant, on the basis of observation. Death rates by race and Hispanic origin are based on information from death certificates (numerators of the rates) and on population estimates from the Census Bureau (denominators). Race and ethnicity information from the census is by self-report. To the extent that race and Hispanic origin are inconsistent between these two data sources, death rates will be biased. Studies have shown that persons self-reported as American Indian, Asian, or Hispanic on census and survey records may sometimes be reported as white or non-Hispanic on the death certificate, resulting in an underestimation of deaths and death rates for the American Indian, Asian, and Hispanic groups. Bias also results from undercounts of some population groups in the census, particularly young black males, young white males, and elderly persons, resulting in an overestimation of death rates. The net effects of misclassification and undercoverage result in overstated death rates for the white population and black population are estimated to be 1% and 5%, respectively: understated death rates for other population groups are estimated as follows: American Indians, 21%; Asian or Pacific Islanders, 11%; and Hispanics, 2%.

For more information, see Rosenberg HM, Maurer JD, Sorlie PD, et al. Quality of death rates by race and Hispanic origin: A summary of current research, 1999. National Center for Health Statistics. Vital Health Stat 2(128). 1999.

Denominators for infant and maternal mortality rates are based on number of live births rather than population estimates. Race information for the denominator is supplied from the birth certificate. Before 1980, race of child for the denominator took into account the races of both parents. Starting in 1980, race information for the denominator was based solely on race of mother. Race information for the numerator is supplied from the death certificate. For the infant mortality rate, race information for the numerator is race of the deceased child; for the maternal mortality rate, it is race of the mother.

Vital event rates for the American Indian or Alaska Native population shown in this book are based on the total U.S. resident population of American Indians and Alaska Natives, as enumerated by the U.S. Census Bureau. In contrast, the Indian Health Service calculates vital event rates for this population based on U.S. Census Bureau county data for American Indians and Alaska Natives who reside on or near reservations. Interpretation of trends for the American Indian

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and Alaska Native population should take into account that population estimates for these groups increased by 45% between 1980 and 1990, partly because of better enumeration techniques in the 1990 decennial census and the increased tendency for people to identify themselves as American Indian or Alaska Native in 1990.

Interpretation of trends for the Asian population in the United States should take into account that this population more than doubled between 1980 and 1990, primarily because of immigration. Between 1990 and 2000, the increase in the Asian population was 48% for persons reporting that they were Asian alone, and 72% for persons who reported they were either Asian alone or in combination with another race.

Starting with 2003 data, some states began using the 2003 revision of the U.S. Standard Certificate of Death, which allows the reporting of more than one race (multiple races). This change was implemented to reflect the increasing diversity of the U.S. population and to be consistent with the decennial census. Most states, however, are still using the 1989 revision of the U.S. Standard Certificate of Death which allows only a single race to be reported.

In order to provide uniformity and comparability of the data until all states are reporting multiple-race data, it was necessary to "bridge" the responses of those for whom more than one race was reported (multiple race) to one, single race. In 2003, seven states reported multiple-race data. In 2004, 15 states reported multiple-race data, and in 2005, 21 states reported multiple-race data. The states using the new death certificate and reporting multiple-race data from 2003 onwards were California, Idaho, Montana, and New York; in addition, Hawaii, Maine, and Wisconsin reported multiple-race data using the 1989 revision of the death certificate. Starting with 2004, multiple-race data were reported for those seven states and Michigan, Minnesota, New Hampshire, New Jersey, Oklahoma, South Dakota, Washington, and Wyoming. Starting with 2005, the seven additional reporting areas providing multiple-race data were Connecticut, District of Columbia, Florida, Kansas, Nebraska, South Carolina, and Utah.

For more information on coding race using vital statistics, see: Kung H-C, Hoyert DL, Xu JQ, Murphy SL. Deaths: Final data for 2005. National vital statistics reports. Vol 56 no 10. Hyattsville, MD: National Center for Health Statistics. 2008. Available from: www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf.

National Center for Health Statistics. NCHS Procedures for Multiple-Race and Hispanic Origin Data: Collection, Coding, Editing, and Transmitting. 2004. Available from: www.cdc.gov/nchs/data/dvs/Multiple_race_documentation_5-10-04.pdf.

National Center for Health Statistics. Technical Appendix. Vital Statistics of the United States, Vol. I, Natality, and Vol. II, Mortality, Part A. Available from: www.cdc.gov/nchs/nvss.htm.

Updated for 2005 mortality data.

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