New from NCHS

New from NCHS presents and analyzes statistics from the National Center of Health Statistics that are relevant to public health. The department is edited by Mary Grace Kovar, DrPH.

Mortality among Minority Populations in the United States

Reducing health disparities among Americans is a public health goal for this nation. A substantial number of objectives in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* are targeted to the minority racial and ethnic groups that continue to bear the burden of poorer health in this country.[1]

Until recently, national studies of racial differences in health focused primarily on the Black and White populations because data for other minority groups were unavailable. However, *Health, United States, 1990,* the annual report of the Secretary of Health and Human Services prepared by the Centers for Disease Control, National Center for Health Statistics, includes a chartbook on minority health.[2]

This chartbook features national data on the health of the Hispanic, Asian and Pacific Islander, American Indian (including those not residing on reservations), and Alaskan Native populations, as well as the Black and White populations. (Hereafter, Asian and Pacific Islanders are referred to as Asian, and American Indian and Alaskan Natives are referred to as American Indians.) Included in the chartbook are 1988 age- and cause-specific death rates for these populations.

Disparities in Death Rates by Age

The Asian population in the United States had the lowest death rate for each of the five age groups (1 to 14 years, 15 to 24 years, 25 to 44 years, 45 to 64 years, and 65 years and older). Among those younger than 45 years of age, the Black and American Indian populations had the highest death rates; the greatest Black–White and American Indian–White relative differences occurred in the age group 25 to 44 years. With increasing age, these differences narrowed. For the age group 65 years and older, death rates for Whites exceeded those for American Indians, and the relative difference between the death rates for Blacks and Whites was lower than for any of the younger age groups. Death rates for Hispanics exceeded death rates for Whites in the age group 15 to 44 years, although the differentials were less than those between the rates for Whites and those for Blacks and American Indians. Death rates for both the younger (1 to 14 years) and older (45 years and older) Hispanic populations were similar to or lower than death rates for the White population.

Specifically, Black and American Indian children aged 1 to 14 years had much higher death rates (49 and 44 per 100 000, respectively) than did Asian, Hispanic, and White children (24, 30, and 30 per 100 000, respectively) (Figure 1).

The American Indian and Black populations in the age group 15 to 24 years also had much higher death rates (162 and 145 per 100 000, respectively) than did others in this age group. Asian youth had the lowest death rate (57 per 100 000), and death rates for White and Hispanic youth (95 and 113 per 100 000, respectively) fell midway between the highest and lowest rates.

For the age group 25 to 44 years, the death rate was highest for Blacks (367 per 100 000), followed by American Indians, Hispanics, and Whites (271, 185, and 149 per 100 000, respectively). The death rate for Asians (77 per 100 000) was about half the rate for Whites in this age group.

The pattern was similar for those aged 45 to 64 years. The death rate was highest for Blacks (1380 per 100 000), followed by American Indians, Whites, and Hispanics (856, 790, and 609 per 100 000, respectively). Again, the death rate for Asians (402 per 100 000) was about half the rate for Whites.

Among Americans aged 65 years and older, death rates for Blacks were 11% higher than those for Whites (5650 vs 5106 per 100 000). The death rates for Hispanics, American Indians, and Asians were much lower (3482, 3292, and 2430 per 100 000, respectively).[1]

Disparities by Cause of Death

The first step in reducing the differences in mortality among population subgroups is to identify the leading causes of death responsible for these differences. Many of the disparities in mortality for the population younger than 45 years are due to external causes of death; unintentional injuries (ICD-9 codes E800–E949)[3] are the leading cause of death for this age group. Natural causes of death are responsible for most disparities over age 45.

Among children aged 1 to 14 years, injury death rates were considerably higher for American Indian and Black children (24 and 20 per 100 000, respectively) than for White, Hispanic, and Asian children (13, 12, and 10 per 100 000, respectively). Half of the injury deaths among White, Asian, American Indian, and Hispanic children and 40% of such deaths among Black children resulted from motor vehicle injuries. In addition, the homicide (ICD-9 codes E960–E978)

Editor's Note. See related editorial by Davey Smith and Egger (p 1079) and commentary by Wilkinson (p 1082) in this issue.

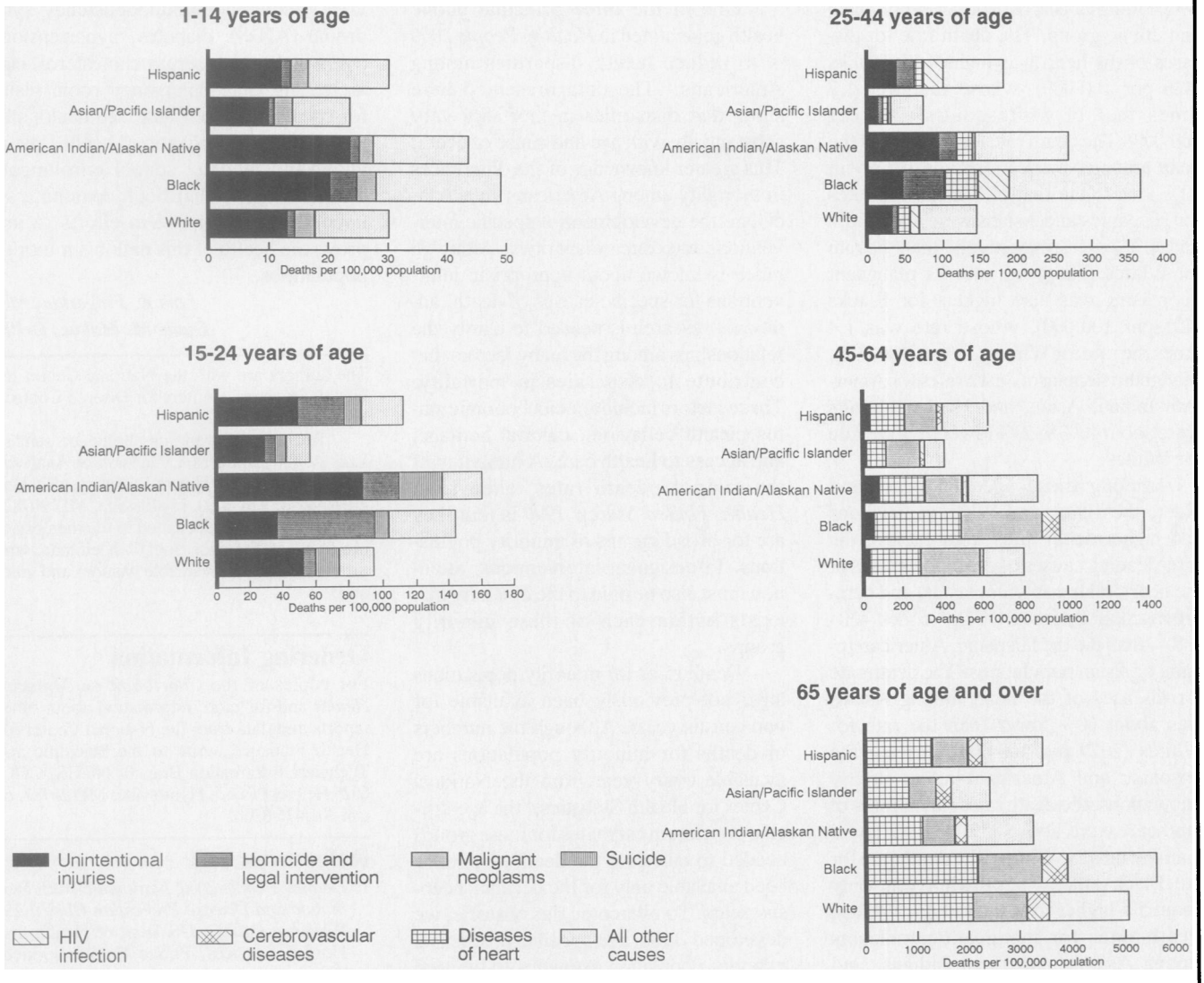

FIGURE 1—Death rates for selected causes of death, according to age and race/ethnicity: United States, 1988.

rate for Black children (5 per 100 000) was three to four times the homicide rate for any other group. Black children also had the highest death rate for natural causes of death (24 per 100 000, compared with 13 to 17 per 100 000 in other groups).

Among youth aged 15 to 24 years, the injury death rate for American Indians (89 per 100 000) was two to three times the injury death rate for any other group. About three fourths of injury deaths for each racial/ethnic group were the result of motor vehicle injuries. Disparities in deaths caused by violence among youth were even larger. Black youth were seven times as likely and American Indian and Hispanic youth were about three to four times as likely to be homicide victims as were Asian and White youth, for which homicide rates were 7 to 8 per 100 000. Suicide (ICD-9 codes E950–E959) rates for American Indian youth were about two to four times the rates for any other group. Death rates for natural causes of death were higher for Black youth (41 per 100 000) than for any other group (15 to 25 per 100 000).

Among adults aged 25 to 44 years, significant disparities were found in mortality from unintentional injuries and violence. The injury death rate for American Indians (97 per 100 000) was nearly three times the rate for Whites in this age group; the rate for Asians was less than half the rate for Whites. The motor vehicle death rate among American Indians was 2.5 to 5 times the rate for any other group. The large racial and ethnic differences in homicide rates for this age group were nearly identical to those for the age group 15 to 24 years.

The majority of deaths among adults aged 25 to 44 years, however, were due to natural causes for every racial and ethnic group except American Indians. Mortality from diseases of the heart (ICD-9 codes 390–398, 402, and 404–429) was highest among Blacks (44 per 100 000), whose rate was 2.6 times the rate for Whites in this age group (17 per 100 000). The death rate for diseases of the heart among American Indians was similar to that for Whites; the death rates for Hispanics and Asians were about 30% and 60% lower, respectively, than the rate for Whites. The human immunodeficiency virus (HIV) infection (ICD-9 codes *042–*044) death rates for Blacks and Hispanics were 3.6 and 2.3 times the rate for Whites (12 per 100 000), whereas HIV death rates among American Indians and Asians were about 70% lower than the rate for Whites.

In the age group 45 to 64 years, dis-

eases of the heart and malignant neoplasms (ICD-9 codes 140–208) were the two leading causes of death in every racial and ethnic group. The death rate for diseases of the heart was highest for Blacks (426 per 100 000), whose rate was 1.7 times that of white adults (244 per 100 000). The death rate for diseases of the heart among American Indians was about 10% lower than that of Whites; the rates for Hispanics and Asians were about 30% and 60% lower, respectively, than the rate for Whites. The death rate for malignant neoplasms was also highest for Blacks (401 per 100 000), whose rate was 1.4 times the rate for Whites (289 per 100 000). Malignant neoplasm death rates for American Indian, Asian, and Hispanic adults were about 40% to 50% lower than the rate for Whites.

Among those aged 65 years and older, the Black and White populations had higher death rates from each of the three leading causes of death—diseases of the heart, malignant neoplasms, and cerebrovascular diseases (ICD-9 codes 430–438)—than did the Hispanic, American Indian, or Asian populations. The death rate for diseases of the heart among Asians was about 60% lower than the rate for Whites (2079 per 100 000). Among the Hispanic and American Indian elderly populations, the death rates for diseases of the heart were about 35% to 45% lower than the rate for Whites; the death rate for the Black elderly population was only about 5% higher than the rate for Whites. Death rates for malignant neoplasms among Asians, American Indians, and Hispanics were about 40% to 50% lower than the rate for Whites (1062 per 100 000), but mortality for Blacks was almost 20% higher than that for Whites. Mortality from cerebrovascular diseases was about 40% lower for the Hispanic, Asian, and American Indian elderly populations than for the White population (425 per 100 000), but the rate was 24% higher for Blacks than for Whites.

Discussion

One of the three principal public health goals stated in *Healthy People 2000* is to reduce health disparities among Americans.[1] The data presented here show that disparities in mortality vary substantially with age and cause of death. This greater knowledge of the differences in mortality among Americans should facilitate the development of specific interventions to reduce disparities. Although much is known about appropriate interventions for specific causes of death, additional research is needed to clarify the relationships among the many factors that contribute to disparities in mortality. These factors include socioeconomic status, health behaviors, cultural heritage, and access to health care. A limitation of the minority death rates taken from *Health, United States, 1990* is that they are for broad groups of minority populations. In designing interventions, attention must also be paid to the diversity that exists within each of these minority groups.

Death rates for minority populations have not previously been available for non-census years. Although the numbers of deaths for minority populations are available every year from the National Center for Health Statistics,[4] the age-specific population estimates for these groups needed to calculate the death rates have been available only for the decennial census years. To overcome this obstacle, we developed 1988 age-specific postcensal minority population estimates to be used as the denominators of the death rates. Hispanic population estimates were made for those states (26 states plus the District of Columbia in 1988) that had Hispanic identifiers on their death certificates. The chartbook's Technical Appendix includes the methodology used to calculate the population estimates.[2]

In addition to data on mortality, the chartbook includes data for detailed racial and ethnic groups on maternal and infant health, cancer incidence and survival, acquired immunodeficiency syndrome (AIDS), diabetes, hypertension, overweight, high serum cholesterol, cigarette smoking, emergency room visits for cocaine use, self-assessed health status, physician utilization, health insurance, and medical school enrollment. The data in the chartbook constitute an important tool for use in efforts to improve the health of this nation's minority populations. □

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This article is dedicated to the memory of our friend and mentor, Joel C. Kleinman, who provided us with invaluable wisdom and guidance.

Ordering Information

For copies of the *Chartbook on Minority Health* and for more information about other reports and data from the National Center for Health Statistics, write to the Scientific and Technical Information Branch, NCHS, CDC, 6525 Belcrest Road, Hyattsville, MD 20782, or call 301/436-8500.

References

1. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives.* Washington, DC: US Dept of Health and Human Services, Public Health Service; 1990.
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