

PROFILE OF HEALTH DISPARITIES AMONG COMMUNITIES OF COLOR

COLORADO 2001



COLORADO
TURNING
POINT
INITIATIVE

PROFILE OF HEALTH DISPARITIES AMONG COMMUNITIES OF COLOR Colorado 2001

Written by:

Jill A. Hunsaker, MPH
Director, Colorado Turning Point Initiative, Colorado Department of Public Health and Environment
Board of Directors, Colorado Minority Health Forum

With support from:

Joanne McConville, MBA
Coordinator, Colorado Turning Point Initiative, Colorado Department of Public Health and Environment
Oswaldo Grenardo, MBA, MSHA
Past President, Colorado Minority Health Forum
Jenni Mercado and Joyce Hubbard, Interns, University of Northern Colorado
Heather Freeman, MPH, Consultant
Health Disparities Work Group, Colorado Department of Public Health and Environment
Colorado Turning Point Initiative Steering Committee

A special thanks to the following Colorado Department of Public Health and Environment professionals who provided their expertise for this report:

Patrick Barnett, Cardiovascular Disease Prevention Program
Sara Miller, Cancer Prevention and Control
Mark J. McMillan, MS, CTM, Colorado Air Pollution Control Division, Planning and Policy Program
Nancy Chick, Colorado Air Pollution Control Division, Planning and Policy Program
Robin Bott, CTR, Colorado Central Cancer Registry
Jack L. Finch, MS, Colorado Central Cancer Registry
Kirk Bol, Colorado Central Cancer Registry
Maria E. Crespin, Colorado Women's Cancer Control Initiative
Barbara J. Beiser, Communication Specialist
Barbara Hruska, Consumer Protection Division
Joan Jones, Diabetes Control Program
Laurie Crounse, Diabetes Control Program
Barbara Schwartz, Tuberculosis and Refugee Health Program
Bob Bongiovanni, Coloradans Working Together: Preventing HIV/AIDS
George E. Ware, Colorado Coalition for STD Prevention
Sue Ricketts, Ph.D., Demographer, Division of Prevention and Intervention Services for Children and Youth
Katy Meng, Ph.D., Colorado Trauma Registry
Karen Trierweiler, Women's Health Section
Huiyun Xiang, MD, MPH, Ph.D., Health Statistics Section
Alyson Shupe, Ph.D., Health Statistics Section
Marilyn Leff, Health Statistics Section

For additional copies of this document, call (303) 692-2329. Visit our Web site at <www.cdphe.state.co.us/tpi>.



CONTENTS

PROFILE OF HEALTH DISPARITIES AMONG COMMUNITIES OF COLOR Colorado 2001

EXECUTIVE SUMMARY 1

PROFILE OF COLORADO..... 3

HEALTH INDICATORS BY RACE AND ETHNICITY..... 5

HEALTH DISPARITIES 6

FACTORS THAT CONTRIBUTE TO HEALTH DISPARITIES AMONG
COMMUNITIES OF COLOR 12

CONCLUSION 13

RECOMMENDATIONS FOR THE ELIMINATION OF
HEALTH DISPARITIES IN COLORADO 14

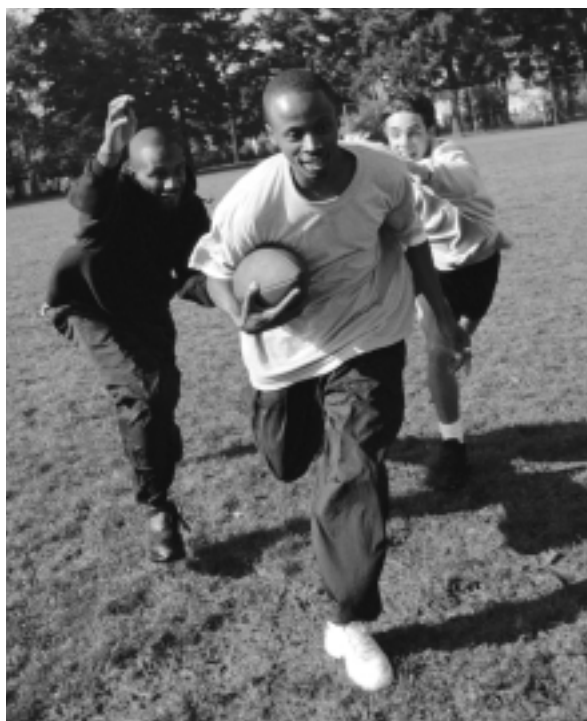




PROFILE OF HEALTH DISPARITIES AMONG COMMUNITIES OF COLOR: Executive Summary

Overview

IN THE LAST 50 YEARS, advances in both medical technology and public health practice have improved the prevention, diagnosis, and treatment of health conditions, and created a better overall living environment. These advancements have increased life expectancy and are assumed to have resulted in positive health outcomes across our nation's communities. However, unfolding evidence reveals that not all individuals are benefiting equally from these successes. Gaps in positive health outcomes, otherwise known as health disparities, occur among our nation's communities of color especially blacks, Hispanics, and American Indians. Recognizing health status discrepancies among certain populations, the *Healthy People 2010* initiative set a national goal to eliminate these health disparities, sparking organizations across the nation to respond. In Colorado, the elimination of health disparities has become the mission of the Colorado Turning Point Initiative and the Colorado Minority Health Forum, in addition to many other public health partners.



Colorado's Health Status

A close look at Colorado's health status indicates that although Colorado as a whole is a healthy state, blacks, Hispanics, and American Indians who represent nearly 25% of the population, are disproportionately impacted by disease, injury, disability, and death. Critical analysis of chronic disease indicators, maternal and child health indicators, communicable disease indicators, and intentional and unintentional injuries reveal health disparities among these populations. Caucasians and Asian/Pacific Islanders have many positive health indicators and are burdened less by injury and disease than the previous populations cited.

Health Disparities by Race and Ethnicity

When comparing health outcomes by race and ethnicity in Colorado, communities of color consistently have higher rates of disease, disability and death than Caucasians. The following illustrates examples of health disparities according to the latest available data:

Blacks

- Blacks have the highest overall death rate and the shortest life expectancy, in fact, five year less than Caucasians.
- Blacks have the highest death rates of cancer overall, and cancers of the lung, breast, and prostate.
- The rate of deaths from diabetes in blacks is more than twice that of Caucasians.
- The highest infant mortality rate by race/ethnicity is among blacks, and is three times higher than the Caucasian rate.
- The highest death rate from AIDS is among blacks and is three times higher than Caucasians.
- Blacks have the highest rate of gonorrhea, which is 35 times higher than the rate among Caucasians.
- The highest rate of homicide is among blacks at nearly 6.5 times the rate of Caucasians.
- The rate of tuberculosis among blacks is nine times higher than among Caucasians.

Hispanics

- The cervical cancer rate is highest among Hispanics, in fact twice as high as Caucasians.
- Hispanics have the highest death rate of diabetes, which is 2.5 times higher than Caucasians.
- The rate of unintentional injury deaths is highest for Hispanics and is nearly 1.7 times higher than Caucasians.
- The gonorrhea rate among Hispanics is 6.5 times higher than Caucasians.
- The HIV rate for Hispanics is nearly twice as high as Caucasians.
- The highest teen fertility rate exists among Hispanics ages 15–17, and is over six times higher than the Caucasian rate.
- Hispanics have the highest death rate from automobile accidents, approximately 1.7 times higher than Caucasians.
- The homicide rate among Hispanics is approximately 3.5 times higher than Caucasians.

American Indians

- The death rate of chronic liver disease is highest among American Indians, in fact, 3.4 times higher than Caucasians.
- The diabetes death rate for American Indians is 1.7 times the rate of Caucasians.
- The gonorrhea rate among American Indians is 2.9 times higher than Caucasians.
- The homicide rate among American Indians is approximately 3.5 times higher than Caucasians.
- American Indians (along with Hispanics) have the highest death rate from automobile accidents, approximately 1.7 times higher than Caucasians.

Factors That Contribute To Health Disparities

Factors that contribute to health disparities among communities of color are complex. There are an array of critical influences that determine the health of an individual and of communities, including income level, education, living environment, discrimination, and access to health care. Health disparities reflect underlying inequalities in the social environment that make some communities more health promoting than others. It is this social environment that provides the context within which individuals are exposed to certain risk factors such as a lack of economic opportunity,



lack of educational opportunities, high crime rates, social isolation, poverty, etc. This type of environment in turn contributes to the adoption of disadvantageous behaviors such as cigarette smoking, drug and alcohol abuse, physical inactivity, and poor diet.

Recommendations

In order to achieve the goal of eliminating health disparities, new insights are needed in order to understand and further define the determinants of racial and ethnic disparities and to address the underlying causes. Strategies to eliminate health disparities must be developed by considering the social, cultural, political, and historical context in which health disparities continue to exist.

In Colorado, a culturally competent leadership entity is needed to take on long-term, statewide advocacy for the elimination of health disparities. The Colorado Minority Health Forum is beginning to assume this role. The inclusion of many diverse and nontraditional partners should be supported in the effort to eliminate health disparities. Public Health and environmental protection agencies should examine their roles in the elimination of health disparities and consider how to impact the social and environmental determinants of health. Public health and the health care delivery system should examine their work forces and assure diverse professionals in leadership positions.

PROFILE OF HEALTH DISPARITIES AMONG COMMUNITIES OF COLOR

MILLIONS OF AMERICANS are benefiting from advances in the medical and public health fields that have increased life expectancy and resulted in improved diagnostic and therapeutic technologies, in addition to a better overall living environment. However, the benefits of these improvements have been unevenly distributed by race and by social class, resulting in disparities among those who are healthy in America and those who are not. Health disparities in our nation threaten to undermine the unprecedented medical advances of the past 50 years.¹

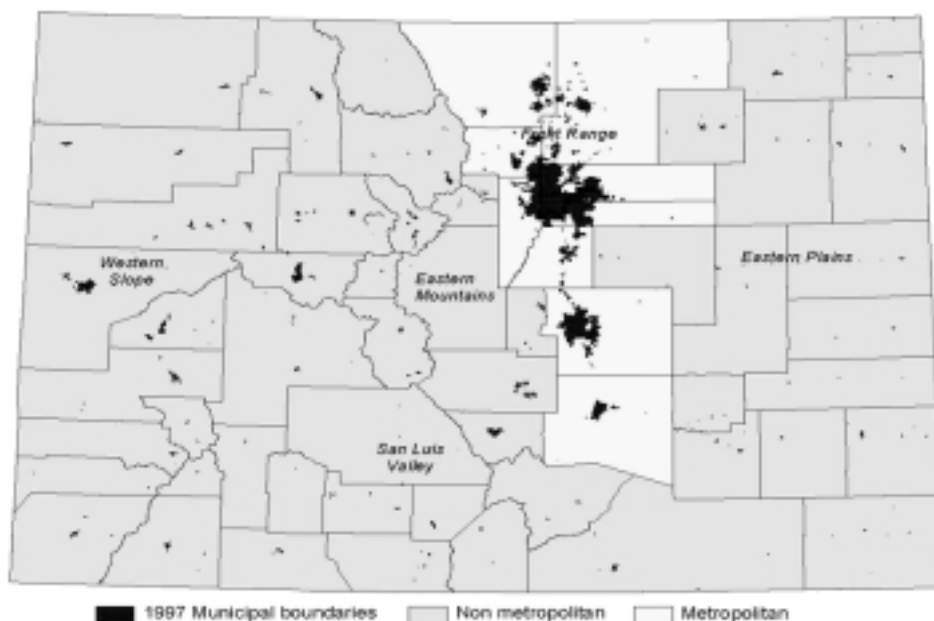
Both nationally and in Colorado, African Americans, Hispanics, and American Indians have higher rates of disease, injury, disability, and death compared with Caucasians.² According to the national *Healthy People 2010* initiative, race and ethnicity are risk markers that correlate with other determinants of health such as poverty, less education, a lack of access to quality health care services, and living in environments with greater risk of exposure to biological and environmental agents of disease.³ In addition, many researchers now hypothesize that race-associated differences in health outcomes are in fact due to the effects of racism, discrimination, and systemic biases that have resulted in multiple barriers to optimal health for communities of color.⁴

The elimination of health disparities between racial and ethnic groups is a goal of the *Healthy People 2010* initiative, which develops health objectives for the nation. It is also the mission of the Colorado Turning Point Initiative, the Colorado Minority Health Forum, and many other public health partners in Colorado.

PROFILE OF COLORADO

Colorado's population is young, healthy, rapidly growing, and increasingly wealthy, relative to national averages. With a population of approximately 4.3 million, Colorado is home to only 1.5 percent of the United States' population. Colorado's population density is 39.2 persons per square mile compared to the rest of the nation at 77.1.⁵ Colorado is a geographically large state with 80 percent of its residents living in 10 metropolitan counties on the east side of the Rocky Mountains. This region is known as the Front Range. The remaining 20 percent of residents are scattered throughout the mountains, eastern plains, and western plains of the state (see Figure 1). Colorado consists of 63 counties, 29 of which are considered rural and 23 are considered frontier (less than 6 people per square mile).^{6,7} In November of 2001, Broomfield will become Colorado's sixty-fourth county.

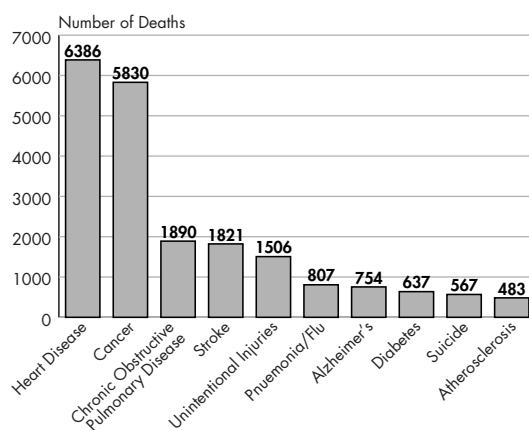
Figure 1: Metropolitan and Rural Regions of the State



Health Status

Colorado by any number of measures, is a healthy state. In 1999, Colorado's age-adjusted death rate for all causes was 801.2 per 100,000 persons, well below the national rate of 881.9.⁸ Colorado's death rate has remained lower than the U.S. rate for the past sixteen years.⁹ The fact that this rate has been adjusted for age indicates that the difference between Colorado and national death rates is not due to Colorado's relatively younger population. Many of Colorado's health indicators are better than national health indicators, including rates of heart disease, cancer, stroke, and diabetes.¹⁰ Colorado's leading causes of death are displayed in Figure 2.

Figure 2: Leading Causes of Death, Colorado 1999



Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics, 1999*. Denver, CO: June 2001.

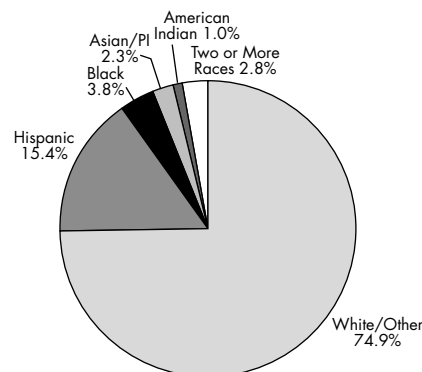
From a public health perspective, Colorado has much in its favor. In 1998, the state was declared the third healthiest in the nation. When considering *Healthy People 2000* national health objectives, Colorado exceeded or was close to meeting objectives on such preventive indicators as mammograms and Pap smears for women over age 50, cholesterol screenings, reducing a number of infectious diseases such as HIV and gonorrhea, reducing births among teens, and reducing infant deaths.^{11,12}

Although Colorado as a whole is a healthy state, this is not true for all of its residents. There are specific population groups in Colorado that are affected disproportionately by disease, injury, disability, and death. The difference in health status between groups is known as health disparities. Health disparities exist among blacks, Hispanics, and American Indians. Caucasians and Asian/Pacific Islanders have many positive health indicators and have less a burden of disease than the previously cited groups.

Colorado's Population By Race/Ethnicity

In terms of racial and ethnic composition, minority groups account for 25.3 percent of Colorado's general population, and the number is increasing. The percentage of minorities in Colorado has increased over the past decade, mostly due to a nearly 33 percent increase in the number of Hispanics between 1990 and 2000. Population figures are provided in Figure 3.¹³

Figure 3: Colorado's Population by Race/Ethnicity, 2000



Source: Colorado Division of Local Government, "Table 3A: Census 2000 Counts of Colorado County Population by Race/Ethnicity and Hispanic Origin," *U.S. Census Bureau: Census 2000 Counts of Colorado Population*, Denver, April 13, 2001.

Note: Percentages do not add to 100 due to rounding.

Colorado's racial and ethnic composition differs from the national composition as follows: The number of Hispanics in Colorado is higher; the number of Asian/Pacific Islanders is lower; and the number of blacks is significantly lower than national numbers. The number of American Indians in Colorado proportionally is similar to the nation.¹⁴

Colorado has two other notable population characteristics, Indian reservations and a migrant workforce. The Ute Mountain and Southern Ute Indian reservations are located in the southwest corner of the state in the counties of Montezuma, La Plata, and Archuleta.¹⁵ Colorado's migrant workforce is mostly of Hispanic origin, working mainly in mountain resort and agricultural areas of the state.¹⁶

DATA ISSUES

This report explores health disparities using Colorado data, by comparing health outcomes of different racial and ethnic groups. In addition, when available, *Healthy People 2010* objectives will be provided. These objectives are targets for the entire population and therefore, should be compared the “all races” category in the graphs, as opposed to specific racial/ethnic or gender categories.

Data availability varies by year depending on the data source. In most cases, 1999 is the latest data available. Unless otherwise noted, all data have been age-adjusted to the year 2000 population standard.

In order to analyze small groups by race and ethnicity or to examine less common diseases, multiple years of data have been combined for a five-year annual average. In some cases, data for American Indians or Asian/Pacific Islanders are not available due to a small population size.

Labels of racial and ethnic groups are used throughout this report. The terms *Caucasian* and *white* refer to the standard data collection category of white/non-Hispanic. The term *Hispanic* refers to the standard data collection category of white/Hispanic. Colorado Turning Point recognizes the complex issue of using labels with regard to racial and ethnic groups. It is hard to gain a consensus on the preference of categories such as “people of color/minority community,” “American Indian /Native American,” “African American/black,” “Hispanic/Latino(a),” and “Caucasian/white.” We acknowledge that not everyone identifies himself or herself with these categories, and we very much respect the importance of cultural differences in how communities prefer to be defined.

In this report, many health indicators will be categorized by race and ethnicity. In accordance with the Centers for Disease Control and Prevention, Colorado Turning Point also recognizes that race and ethnicity are social constructs representing distinct histories and cultures of groups within the United States, and that they are not valid biological or genetic categories.¹⁷

HEALTH INDICATORS BY RACE AND ETHNICITY

Blacks

When comparing health outcomes by race and ethnicity in Colorado, blacks have the highest overall death rate and the shortest life expectancy.¹⁸ Blacks also consistently experience higher morbidity and mortality rates of disease and disability than Caucasians and other racial and ethnic groups. According to Colorado data, blacks have the highest rates of death from heart disease, stroke, Alzheimer’s disease, HIV, infant mortality, homicide, nephritis (inflammation of the kidneys), septicemia (infection of the blood), and cancer (overall), plus cancers of the lung, breast, and prostate.¹⁹ Though asthma rates are not available for Colorado, nationwide, blacks have disproportionately high rates of asthma, which has been linked to living in urban settings.²⁰ In terms of positive health indicators, black Coloradans do have the lowest rate of death from automobile accidents, and there has been a substantial decline in the teen fertility rate since the early 1990s.^{21,22}

American Indians

In Colorado, American Indians have the highest death rates from motor vehicle accidents and chronic liver disease. They also have statistically higher rates of HIV, sexually transmitted diseases, homicide, and diabetes than Caucasians. American Indians do have the lowest death rate of stroke, compared to other racial and ethnic groups; and comparatively low rates of other chronic diseases such as heart disease and cancer.²³ National data show that violent crime against American Indians is high and increasing, while crime against other groups has decreased.²⁴

Hispanics

Hispanics, when compared to other racial and ethnic groups in Colorado, have the highest rates of diabetes, teen pregnancy, cervical cancer, and unintentional injuries. They also have statistically higher death rates of motor vehicle accidents, chronic liver disease, nephritis, septicemia, homicide, and HIV than Caucasians. However, Hispanics tend to have comparatively low death rates from many chronic diseases including cerebral vascular disease (which leads to

Figure 4: Life Expectancy in Years by Race/Ethnicity and Gender for Babies Born during 1999 in Colorado

ALL RACES			BLACK			HISPANIC			WHITE		
Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
77.8	75.6	80.0	73.1	71.2	75.1	77.4	74.4	80.5	78.1	75.9	80.2

Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics 1999*, Table D40, May 2001.

stroke), heart disease, and cancer.²⁵ This is especially true for recent immigrants of Hispanic origin before they become acculturated to the American diet and sedentary lifestyle.²⁶

Asian/Pacific Islanders

Asian/Pacific Islanders in Colorado have many positive health indicators and generally lower death rates than other racial and ethnic groups, including Caucasians. For example, they have the lowest death rates of heart disease, chronic obstructive pulmonary disease, suicide, chronic liver disease, pneumonia, and influenza.²⁷ However, some communicable disease rates are higher for this population than other racial and ethnic groups, including hepatitis B and tuberculosis. This is especially true for recent immigrants.²⁸ Also, social factors exist that can prevent optimal health for Asian/Pacific Islanders such as the increasing number of non-English-speaking immigrants who have a difficult time accessing health care; the cultural fear of Western medicine institutions and procedures, resulting in the avoidance of prevention and screening services; and the increase in chronic disease for Asian immigrants as they become acculturated to the American diet and a more inactive lifestyle.^{29,30}

Caucasians

Caucasians most often die from chronic diseases that are associated with aging, more so than other racial and ethnic groups. Death rates of cancer, heart disease, and cerebrovascular disease are statistically higher than among Hispanics, American Indians, and Asian/Pacific Islanders. However, Caucasians have comparatively low rates of death from unintentional injuries including automobile accidents, HIV, tuberculosis, homicide, chronic liver disease, and septicemia. They also have the lowest rates of teen pregnancy and sexually transmitted diseases, compared with other racial and ethnic groups. Caucasians have the longest life expectancy when compared to Hispanics and blacks (data for other groups is not available). However, it should be noted that there is a disparity for Caucasians in the rate of suicide, which is statistically higher than any other racial or ethnic group.³¹

HEALTH DISPARITIES

Life Expectancy

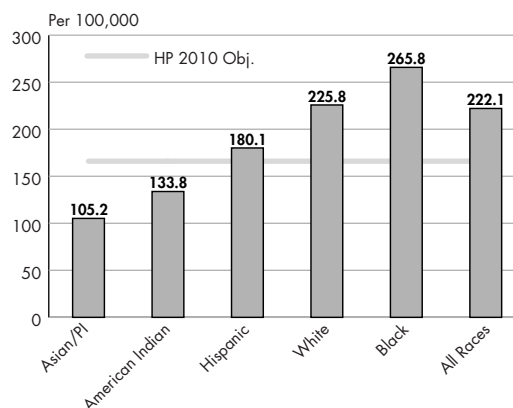
The average life expectancy in Colorado is 77.8 years—75.6 years for males and 80.0 years for females—for a baby born in 1999. When considering life expectancy by race and ethnicity, blacks have the shortest life expectancy. For example, a black baby born in 1999 has an average life expectancy of 73.1 years. This is a difference of almost five years from the Colorado average life expectancy. A black female born in 1999 has a life expectancy of 75.1 years and a black male born in 1999 has a life expectancy of 71.2 years. The average life expectancy for Caucasians and Hispanics is 78.1 years and 77.4 years respectively, based on the year 1999 (see Figure 4).³²

CHRONIC DISEASE

Heart Disease

Both nationally and in Colorado, heart disease is the leading cause of death among all racial and ethnic groups. In Colorado, the death rate from heart disease is statistically highest for blacks, at 2.5 times the rate of Asian/Pacific Islanders, the population with the lowest rate. Caucasians have the second highest rate. The

Figure 5: HEART DISEASE: Age-Adjusted Death Rate by Race/Ethnicity, Colorado Annual Average, 1995–1999



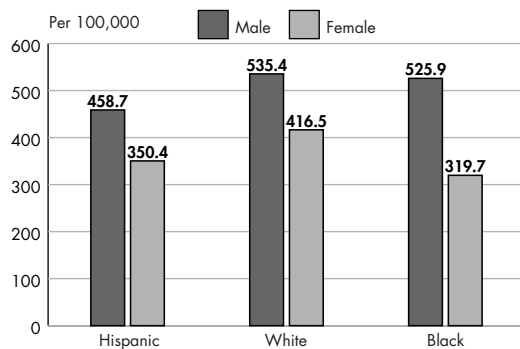
Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

average age-adjusted death rate of heart disease in Colorado is 222.1 deaths per 100,000 persons (see Figure 5).³³ The *Healthy People 2010* target for heart disease is 166 deaths per 100,000 persons.

Cancer

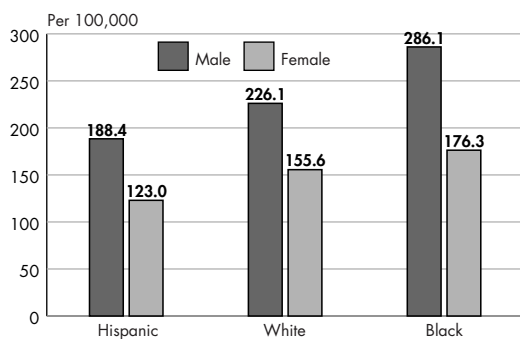
Both nationally and in Colorado, cancer is the second leading cause of death among all racial and ethnic groups. Minority populations have lower survival rates than Caucasians for most cancers, and although incidence rates of cancer are statistically highest for Caucasians, death rates are statistically highest for blacks (see Figures 6 & 7).^{34,35} In examining a five-year average during the late 1990s, blacks had the lowest percentage of early detection for cancer, at 48.8 percent compared to Hispanics at 50.8 percent and Caucasians at 57.6 percent.³⁶

Figure 6: CANCER: Age-Adjusted Incidence Rates by Race/Ethnicity and Gender, Colorado Annual Average, 1995–1999



Source: Colorado Department of Public Health and Environment, Colorado Central Cancer Registry, Denver, June 2001.

Figure 7: CANCER: Age-Adjusted Death Rates by Race/Ethnicity and Gender, Colorado Annual Average, 1995–1999

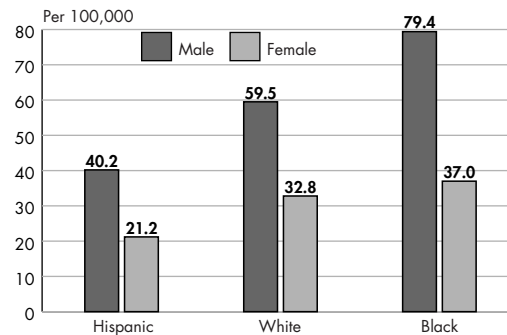


Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, June 2001.

Other Cancer Sites

■ **Lung cancer:** Black males have the highest death rate of lung cancer, which is twice as high as Hispanic males and 1.3 times higher than Caucasian males (see Figure 8).³⁷

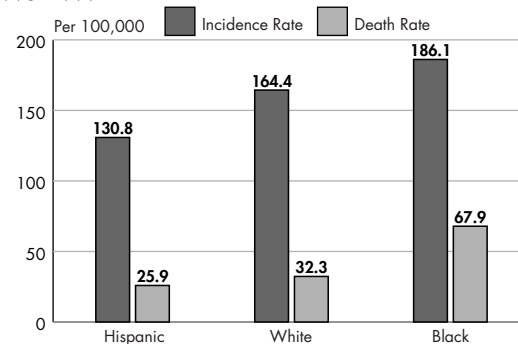
Figure 8: LUNG CANCER: Age-Adjusted Death Rates by Race/Ethnicity and Gender, Colorado Annual Average, 1995–1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, June 2001.

■ **Prostate cancer:** Black males have the highest incidence rate of prostate cancer. They also have the highest death rate of prostate cancer, which is 2.6 times higher than Hispanics and 2.0 times higher than Caucasians (see Figure 9).^{38,39}

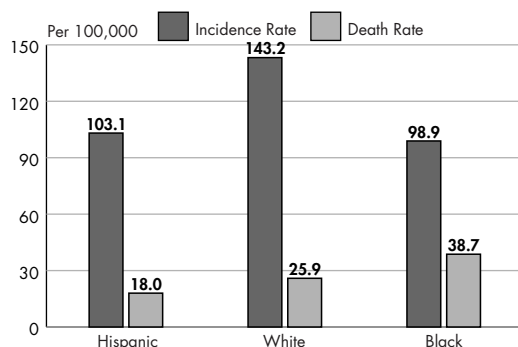
Figure 9: PROSTATE CANCER: Age-Adjusted Incidence and Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999



Sources: Colorado Department of Public Health and Environment: Colorado Central Cancer Registry (incidence data), Denver, June 2001; Health Statistics Section (mortality data), Denver, June 2001.

■ **Breast cancer:** Caucasian women have the highest incidence rate of breast cancer, which is nearly 1.5 times higher than black women. Black women have the highest death rate of breast cancer, approximately 1.5 times higher than Caucasian women and 2.0 times higher than Hispanic women. (see Figure 10).^{40,41} Often, breast cancer is diagnosed

Figure 10: BREAST CANCER (Females): Age-Adjusted Incidence and Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999

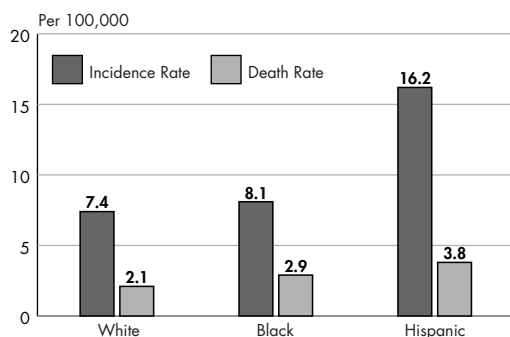


Sources: Colorado Department of Public Health and Environment: Colorado Central Cancer Registry (incidence data), Denver, June 2001; Health Statistics Section (mortality data), Denver, June 2001.

at later stages in black women than Caucasian women.⁴²

- **Cervical cancer:** Hispanic women in Colorado have the highest incidence rate of cervical cancer, 2.2 times higher than Caucasians and 2.0 times higher than blacks. They also have the highest death rate, at 1.8 times higher than Caucasians and 1.3 times higher than blacks.^{43,44} Considerable evidence suggests that screening can significantly reduce the number of cervical cancer deaths. According to *Healthy People 2010*, minority women traditionally have been less likely to seek or receive screening for cervical cancer (see Figure 11).

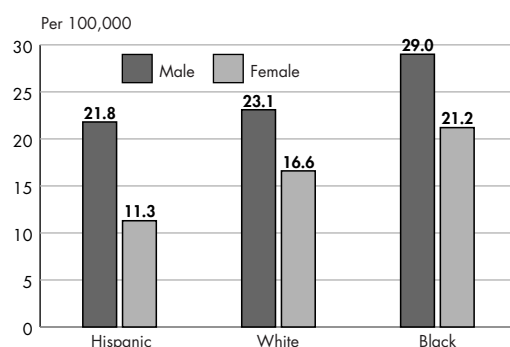
Figure 11: CERVICAL CANCER: Age-Adjusted Incidence and Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999



Sources: Colorado Department of Public Health and Environment: Colorado Central Cancer Registry (incidence data), Denver, June 2001; Health Statistics Section (mortality data), Denver, June 2001.

- **Colorectal cancer:** Blacks have the highest rate of deaths from colon cancer, which is 30 percent higher than Hispanics and 20 percent higher than Caucasians. Access to health care is critical in order

Figure 12: COLORECTAL CANCER: Age-Adjusted Death Rates by Race/Ethnicity and Gender, Colorado Annual Average, 1995–1999



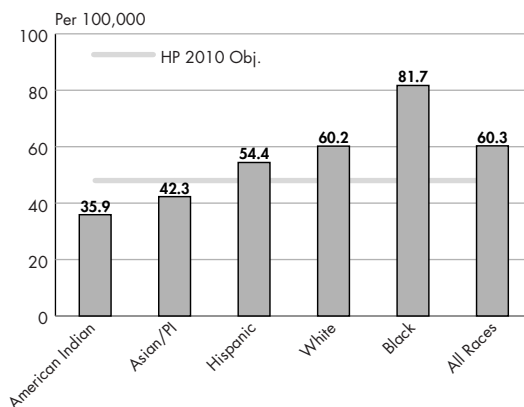
Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, June 2001.

to detect and treat this disease in its earliest stage (see Figure 12).^{45,46}

Cerebrovascular Disease

Cerebrovascular disease, which causes stroke, is the fourth-leading cause of death in Colorado. The death rate of stroke statistically is highest in black Coloradans, at 2.3 times the rate of American Indians (the population with the lowest rate), and approximately 1.4 times higher than Caucasians. The average age-adjusted death rate for stroke in Colorado is 60.3 per 100,000 persons (see Figure 13).⁴⁷ The *Healthy People 2010* target is 48 stroke deaths per 100,000 persons.

Figure 13: STROKE: Age-Adjusted Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999



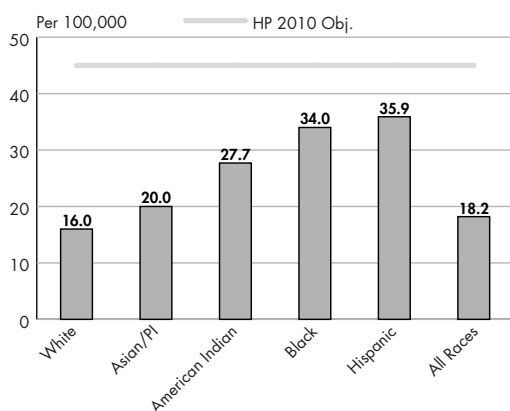
Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

Diabetes Mellitus

Hispanics, blacks, and American Indians have a genetic predisposition to diabetes. These groups are also less likely than Caucasians to have access to health care, including diabetes management services. Thus, they are more at risk for complications due to diabetes, including visual impairment, lower extremity amputations, and kidney failure.^{48,49}

The Colorado death rate for diabetes is highest in Hispanics, at 2.5 times the rate of Caucasians. The rate of diabetes deaths in blacks is more than twice as high as the rate of Caucasians, and the rate for American Indians is 1.7 times the rate of Caucasians. The *Healthy People 2010* objective is to reduce the diabetes death rate to 45 deaths per 100,000 persons. Colorado has already met this objective with an average rate of 18.2 per 100,000 (see Figure 14).⁵⁰

Figure 14: DIABETES: Age-Adjusted Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

According to *Healthy People 2010*, the reasons for disparities in diabetes rates are complex. Genetic susceptibility, a greater prevalence of risk factors, lower socioeconomic status, and less access to health care services may potentially explain some of these differences.⁵¹

MATERNAL AND CHILD HEALTH

Infant Mortality

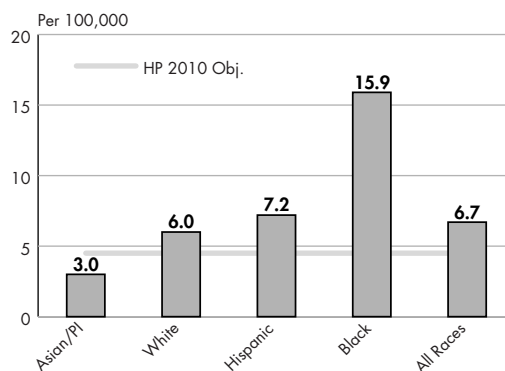
Infant mortality is defined as death before age one. The leading causes of infant mortality are congenital anomalies (birth defects), short gestation (premature birth),



and sudden infant death syndrome (SIDS).⁵² Colorado ranks below the national average, with a 1999 rate of 6.7 infant deaths per 1,000 live births, compared to the national rate of 7.2.⁵³

In both Colorado and the United States, the greatest disparity in infant mortality exists for black infants. In Colorado, the black infant death rate is 5.3 times higher than the Asian/Pacific Islander rate and 2.7 times higher than the Caucasian rate. The rate for Hispanics is almost 2.5 times higher than the Asian/Pacific Islander rate. (Data are not available for American Indians.) The average rate of infant deaths in Colorado is 6.7 per 1,000 live births (see Figure 15).⁵⁴ The *Healthy People 2010* target for infant deaths is 4.5 per 1,000 live births.

Figure 15: INFANT MORTALITY RATES: by Race/Ethnicity, Colorado Annual Average, 1995–1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

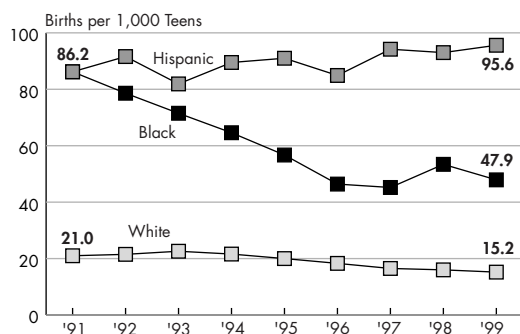
It is difficult to determine exact causes of racial and ethnic disparities in infant mortality. Some research suggests that the high rate of infant mortality among blacks is not attributable to poverty because black women have problematic birth outcomes regardless of their socioeconomic position, faring worse than Caucasian women at every economic level. This disparity persists even among the most highly educated black women. In addition, Hispanic women at comparable socioeconomic levels have better pregnancy outcomes than black women, including lower rates of both infant mortality and low birth-weight babies.⁵⁵

Teen Fertility

A fertility rate is defined as the number of live births per 1,000 females in a specific age group. The overall

teen fertility rate in Colorado has been declining since 1992. The decline has been most dramatic among black adolescents. For black teens, ages 15–17, the rate decreased 45 percent between 1991 and 1999. The fertility rate for Hispanic teens, ages 15–17, increased by 11 percent during the same time period. In 1999, the fertility rate for Hispanic teens was more than six times higher than Caucasian teens and twice the rate of black teens, ages 15–17 (see Figure 16).^{56,57,58,59}

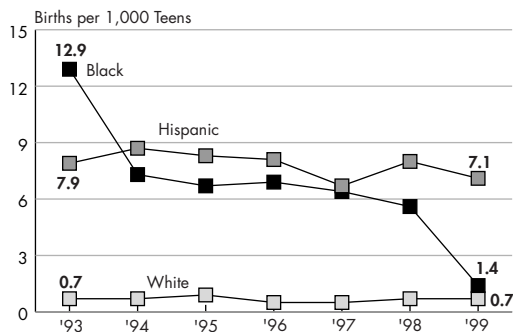
Figure 16: TEEN FERTILITY RATES: Ages 15–17, Colorado, 1991–1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*, 1993, 1995, 1998, 1999, Denver, published in 1994, 1997, 2000, and 2001.

Colorado's very young teens, ages 13 to 14, experienced similar trends during the 1990s. The birth rate of 13- to 14-year-old black teens decreased eightfold between 1993 and 1999. The rate for very young Hispanic and Caucasian teens remained stable.^{60,61,62} The 1999 fertility rate of 13- to 14-year-old Hispanic teens was 10 times higher than the rate of Caucasian teens, and five times higher than the rate of black teens (see Figure 17).

Figure 17: TEEN FERTILITY RATES: Ages 13–14, Colorado, 1993–1999



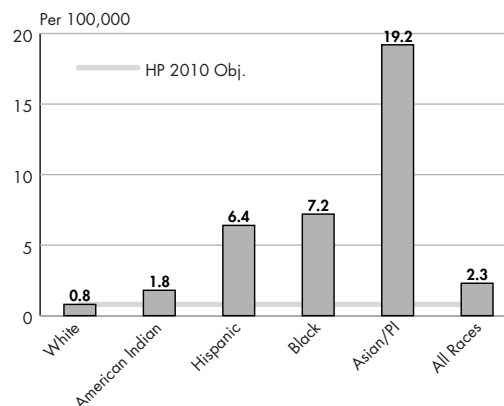
Source: Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*, 1995, 1998, 1999, Denver, published in 1997, 2000, and 2001.

COMMUNICABLE DISEASE

Tuberculosis

Tuberculosis (TB) is the leading cause of death from contagious disease in the world and therefore is subject to intense surveillance. Although not a very common disease in Colorado, TB incidence is monitored for indications of outbreaks among various populations in the state. Many TB cases are seen in recent immigrants, especially those from Mexico and Vietnam.⁶³ The Asian/Pacific Islander population has the highest rate, which is 24 times higher than Caucasians. Blacks have the second highest rate, which is nine times higher than Caucasians, and Hispanics have the third highest rate, which is eight times higher than Caucasians (see Figure 18).⁶⁴

Figure 18: TUBERCULOSIS: Incidence Rates by Race/Ethnicity, Colorado Annual Average, 1996–2000



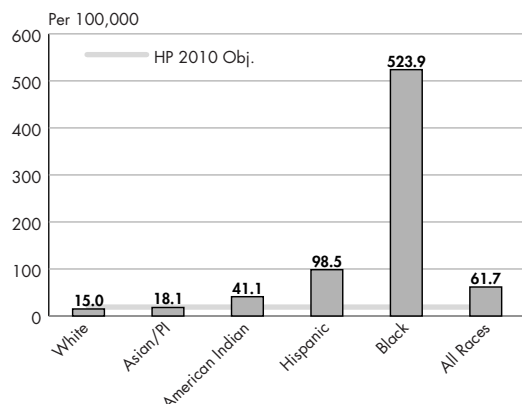
Source: Colorado Department of Public Health and Environment, Division of Disease Control and Epidemiology; Tuberculosis, and Refugee Health Programs, Denver, June 2001.

Gonorrhea

The gonorrhea rate has been declining in all racial and ethnic groups, both nationally and in Colorado; however, great disparities still exist.⁶⁵ In 1999, the gonorrhea rate among blacks was 35 times higher than the rate among Caucasians. The rate among Hispanics was 6.5 times higher than Caucasians, and the rate among American Indians was 2.9 times higher than Caucasians (see Figure 19).⁶⁶ Of particular interest is the magnitude of the disparity for the black community. Blacks have a higher number of cases than Caucasians, even though they account for less than five percent of Colorado's population.⁶⁷

In 1999, the Colorado average rate of gonorrhea was 61.7 per 100,000 persons. The *Healthy People 2000* objective for gonorrhea was to reduce the incidence

Figure 19: GONORRHEA: Case Rates by Race/Ethnicity, Colorado, 1999



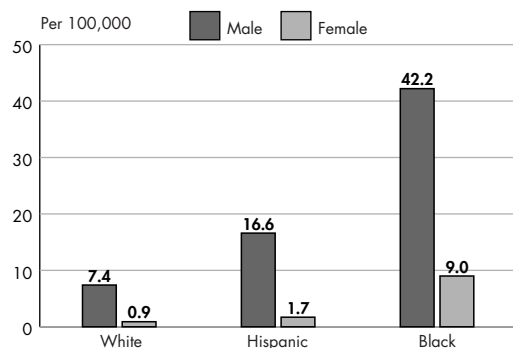
Source: Colorado Department of Public Health and Environment, Division of Disease Control and Environmental Epidemiology, *Sexually Transmitted Diseases in Colorado, Surveillance Report: 1999*, Denver, 2000.

to 225 new cases per 100,000 persons. Nationally, there has been such a dramatic decrease in the incidence of gonorrhea that the *Healthy People 2010* target has been set at 19 new cases per 100,000 persons.

HIV/AIDS

Of the HIV cases *diagnosed* in Colorado during 1998–1999, black males had the highest rate of HIV, in fact six times higher than Caucasian males. The HIV rate for Hispanic males was twice as high as Caucasian males. The same disparity exists among females. The rate for black females was eight times higher than Caucasian females, and the rate for Hispanic females was almost twice as high (see Figure 20).⁶⁸ Because HIV may not produce symptoms for many years, these HIV case data only represent people who have tested positive for HIV as opposed to the actual number infected.

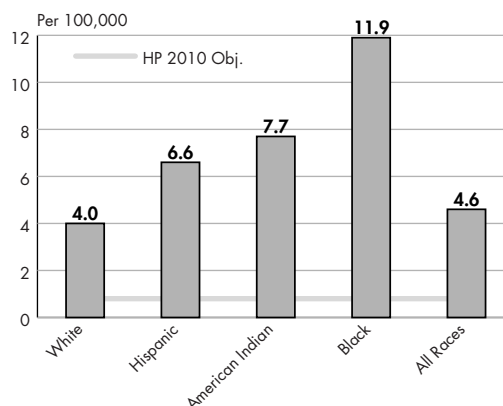
Figure 20: HIV: Average Annual Case Rates by Gender and Race/Ethnicity, Colorado, 1998–1999



Source: Colorado Department of Public Health and Environment, Division of Disease Control and Environmental Epidemiology, *HIV and AIDS in Colorado, Monitoring the Epidemic (through December 31, 1999)*, Denver, 2000.

Disparities exist in the rates of death due to HIV infection. The AIDS death rate among blacks is three times higher than Caucasians; the AIDS death rate among American Indians is nearly twice the rate of Caucasians; and the AIDS death rate among Hispanics is more than 1.5 times higher than Caucasians. The average rate of AIDS deaths in Colorado is 4.6 per 100,000 persons (see Figure 21).⁶⁹ The *Healthy People 2010* target for AIDS deaths is 0.8 deaths per 100,000 persons.

Figure 21: AIDS: Age-Adjusted Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

Healthy People 2010 explains the disparity in sexually transmitted disease (STD) rates by stating that, “While certain sexual behaviors may increase a person’s risk for an STD, it is important to remember that for STDs, race and ethnicity in the United States are risk markers that correlate with poverty, a lack of access to quality health care services, illicit drug use, and living in communities with a high number of STD cases.”⁷⁰ Also, according to the Institute of Medicine, access to high-quality health care is essential to preventing the spread of STDs, but often the groups with the highest STD rates are the same groups in which access to services is most limited, including minority populations.⁷¹

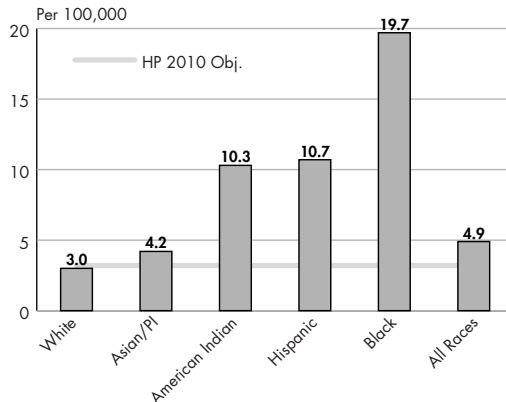
INTENTIONAL AND UNINTENTIONAL INJURIES

Homicide

Disparities in homicide rates vary greatly by race/ethnicity. The rates for blacks, American Indians, and Hispanics are significantly higher than the rate for Caucasians. According to Colorado data, the homicide rate among blacks is more than 6.5 times higher than Caucasians; the rate among Hispanics and

American Indians is approximately 3.5 times higher than Caucasians. The average rate in Colorado is 4.9 homicides per 100,000 persons (see Figure 22).⁷² The *Healthy People 2010* target for homicide is 3.2 deaths per 100,000 persons.

Figure 22: HOMICIDE: Age-Adjusted Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999

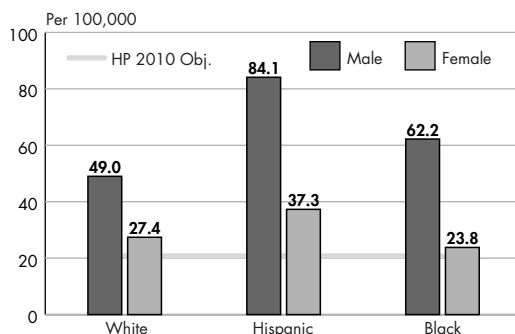


Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

Unintentional Injuries

The unintentional injury category includes the following: transportation injuries (motor vehicle, motorcyclist, bicyclist, pedestrian), drowning, poisoning, falls, fires and burns, and other unintentional injuries. Hispanics consistently have the highest death rate of unintentional injuries. In 1999, the death rate for Hispanic males was 1.7 times higher than Caucasian males, and 1.3 times higher than black males. In 1999 the rate for Hispanic females was 1.6 times higher than black females and approximately 1.4 times higher than Caucasian females (see Figure 23).⁷³

Figure 23: UNINTENTIONAL INJURIES: Age-Adjusted Death Rates by Race/Ethnicity and Gender, Colorado, 1999

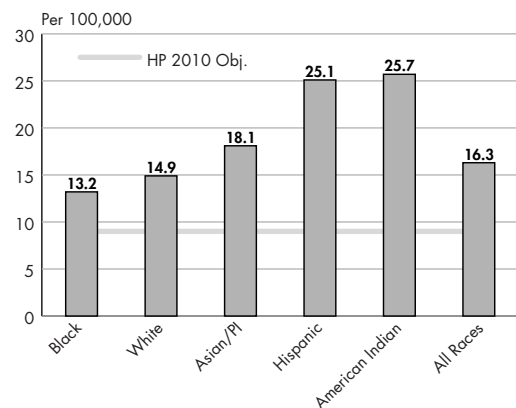


Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics 1999*, May 2001.

Automobile Accidents

Automobile accidents account for the greatest number of unintentional injuries. Statistically, American Indians and Hispanics have the highest death rates from automobile accidents, nearly twice the rate of blacks and approximately 1.7 times higher than Caucasians. Asian/Pacific Islanders also have a statistically higher rate than blacks and Caucasians. The average Colorado motor vehicle death rate is 16.3 per 100,000 persons (see Figure 24).⁷⁴ The *Healthy People 2010* target for motor vehicle deaths is 9.0 deaths per 100,000 persons.

Figure 24: MOTOR VEHICLE DEATHS: Age-Adjusted Death Rates by Race/Ethnicity, Colorado Annual Average, 1995–1999



Source: Colorado Department of Public Health and Environment, Health Statistics Section, Denver, May 2001.

FACTORS THAT CONTRIBUTE TO HEALTH DISPARITIES AMONG COMMUNITIES OF COLOR

Income and Education

Inequalities in income and education underlie many health disparities in the United States. According to *Healthy People 2010*, income and education are related intrinsically and often serve as proxy measures for each other. In general, populations that suffer the worst health status are also those that have the highest poverty rates and the least education.

Living Environment

The quality of residential living is a factor in a person's health. Inner cities and reservations may lack basic neighborhood amenities and services, and many have deteriorating physical environments. The

concentration of poverty is higher, the crime rate is higher, and well-paying, skilled jobs are scarce. Minorities are more likely than Caucasians to live in these types of environments.⁷⁵ According to the U.S. Environmental Protection Agency, health disparities may also result from increased exposure to environmental hazards such as landfills, increased auto traffic, industrial facilities, toxics, and other organic pollutants that are in close proximity to many low-income and minority neighborhoods.⁷⁶

Access to Health Care

Minorities also face disadvantages in gaining access to health care. The rates of health insurance coverage are lower among minorities; minorities are more likely than Caucasians to perceive discrimination in the delivery of their health services; and research demonstrates that people receive differential treatment based on race.^{77,78,79} For example, two studies showed that Hispanics and blacks were under treated substantially for pain from bone fractures, and that postoperative pain was managed poorly. According to other studies, blacks with chronic renal failure were less likely to be evaluated for a renal transplant, and less likely to be evaluated thoroughly for coronary artery disease. These outcomes were true even when controlling for income as a variable.^{80,81}

Racial Discrimination

Racial discrimination is a social factor that influences personal health on many levels, and appears to be a leading cause in the development of health conditions that can lead to illness. Stress experienced by minorities related to a lifetime of discrimination can adversely affect physical and mental health. Also, historical injustices such as the U.S. Public Health Service's Tuskegee Syphilis Experiment (1932–1972) have created distrust of government systems and may discourage some minority populations from seeking health care or taking part in government health programs. (In this experiment, black men were unknowingly withheld treatment for syphilis so the disease's progression could be studied. The men eventually died from the disease.)⁸² According to the Grant Makers in Health report *Strategies for Reducing Racial and Ethnic Disparities in Health*, the history of slavery and segregation are at the very root of the substandard neighborhoods, housing, lack of employment and educational opportunities, and a lack of access to health care services that many minorities face and that influence health.

“Violations of dignity are painful events fostered by disparities in perception of human worth, which in turn result in differences in social status, wealth, power, prestige, and influence. These experiences have such significant, pervasive, and long-lasting effects that injuries to individual and collective dignity may represent an unrecognized pathogenic force of destructive capacity toward human well-being at least equal to that of viruses or bacteria. In 50 years, public health may look back and wonder how we could have failed to recognize this pathogenic force ... If the public health mission is to assure conditions in which people can achieve the highest attainable state of physical, mental, and social well-being, and if those essential conditions predominately are societal, then public health must work for societal transformation.”

— The late Dr. Jonathon Mann,
International Public Health Leader

CONCLUSION

The factors that contribute to health disparities among minority communities are complex. There are an array of critical influences that determine the health of an individual and of communities, including income and educational level, access to health care, discrimination, and living environment. Strategies to eliminate health disparities must be developed by considering the social, cultural, political, and historical context in which health disparities continue to exist.

As explained by the Centers for Disease Control and Prevention, health disparities reflect underlying inequalities in local social environments that make some communities more health promoting than others. It is this social environment that provides the context within which individuals (especially minority groups) are continuously exposed to certain structural risk factors such as a lack of economic opportunity, a lack of educational opportunity, high crime, social isolation, poverty, etc. This in turn contributes to the adoption of disadvantageous behaviors such as cigarette smoking, drug and alcohol abuse, physical inactivity, and a poor diet. Understanding the structural risk factors within a community, and assessing the health promoting characteristics and the barriers to change is a critical first step in designing effective programs and policies. Once populations with the greatest burden of disease are identified, appropriate resources need to be targeted in order to improve the local social environment in those communities.⁸³

RECOMMENDATIONS FOR THE ELIMINATION OF HEALTH DISPARITIES IN COLORADO

The following recommendations were derived from the literature, the Colorado Turning Point Steering Committee, the Colorado Department of Public Health and Environment Health Disparities Work Group, the Colorado Association of Local Public Health Leaders, and the Colorado Minority Health Forum.



Public Health

- Assess its role in the elimination of health disparities. Consider a broad, comprehensive approach by implementing policies and strategies that support community development and social justice.
- Support the Colorado Minority Health Forum as a culturally competent leadership entity, in taking on long-term, statewide advocacy for the elimination of health disparities.
- Investigate root social causes of health disparities and take a comprehensive, systemic approach to the elimination of health disparities.
- Convene many diverse and nontraditional partners to address the elimination of health disparities, including not only affected communities but also foundations, businesses, and civic planning agencies.
- Increase the racial/ethnic diversity and cultural competence of the public health workforce through recruitment, training, and the development of policies that support cultural competency.
- Create and implement standards of translation and interpretation services for limited-English-speaking clients.
- Develop and use innovative outreach and service delivery models to reach the medically under-served and disenfranchised communities, such as mobile health care vans, school-based health centers, and storefront service locations.
- Consider health disparities and access to care issues with regard to mental health and oral health services.
- Advocate for physician incentives to practice in health professional shortage areas.

Environmental Health

Health Care

- Work toward increasing access and use of health care services by under-served populations including minority communities. Efforts should focus on culturally competent care, increasing health insurance coverage, and reducing health professional shortage areas.
- Focus on and target services to populations with health disparities, assuring that services are provided in a culturally competent manner.
- Increase the diversity and cultural competence of the health care workforce through recruitment, training, and the development of policies that support cultural competency.
- Work with public health agencies as partners toward the elimination of health disparities.
- Investigate cumulative impacts of pollution on air, water, and land quality, even where no standards, laws, or regulations are being broken, to identify communities that may be experiencing a disproportionate impact of pollutants.
- Involve affected communities in all stages of environmental protection.
- Work toward improving the interface between environmental health and public health, especially with regard to data linkage of environmental indicators to health outcomes, such as asthma incidence in urban settings, which is exacerbated by air pollution.
- Enhance community outreach, especially to gain input into local environmental projects, such as supplemental environmental projects that result from environmental penalties.
- Reach out to disenfranchised communities—those not engaged in political or governmental

processes—to educate about government systems and how to contact departments with environmental concerns.

- Continue to take a leadership role in bringing together communities and industry to negotiate solutions outside of regulation.

Research

- Enhance data collection and health assessment with a focus on groups most affected by health disparities.
- Investigate the basis of observed race-associated differences in health outcomes.
- Improve data collection by race and ethnicity so that quality can be ensured: report health indicators in as many racial and ethnic groups as possible; combine multiple years of data for small populations such as blacks, American Indians, and Asian/Pacific Islanders.
- Interpret race-related findings instead of controlling for race or trying to explain it as a confounding variable; conduct follow-up research if findings from initial research are unclear.
- Acknowledge diversity within racial and ethnic groups and measure culture when possible.

Funding

- Engage foundations in examining their role in funding initiatives that are working toward the elimination of health disparities, particularly with regard to community development.

Involving Affected Communities

- Develop strategies to increase workforce diversity within the fields of public health, health care, and environmental health. This may include partnering with universities, developing mentoring programs or internships and implementing recruitment and retention strategies.
- Assure diverse participation on boards and commissions by inviting and accommodating the needs of these communities to meet after-hours or be compensated for travel.
- Collaborate with affected communities and support leadership development within those communities by offering opportunities and compensation for participation; facilitate involvement in leadership development programs.



NOTES

1. The Association of American Colleges and Universities, the National Association of City and County Health Officials, Georgetown University, *Race, Class and Health in America* (PBS Adult Learning Series, Satellite Downlink and Video Taped Forum) January 2000.
2. U.S. Department of Health and Human Services. *Healthy People 2010: Conference Edition, in Two Volumes*, (Washington, DC: U.S. Government Printing Office), January 2000.
3. Ibid.
4. C.P. Jones, "Levels of Racism: A Theoretic Framework and A Gardener's Tale," *American Journal of Public Health*, Vol. 90, No. 8, (August 2000): 1212–1215.
5. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Colorado 2001, State Health Profile* (Atlanta, Ga.).
6. Colorado Rural Health Center, *Colorado Rural Health Plan: Submitted for Colorado's Participation in the Medicare Rural Hospital Flexibility Program* (Denver, Co.: January 1999).
7. Colorado Rural Health Center, *Colorado Rural, Frontier, and Urban Counties, 2000 Census* (Denver, Co.: 2001).
8. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics, 1999* (Denver, Co.: June 2001).
9. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics, 1998* (Denver, Co.: March 1999).
10. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics, 1998* (Denver, Co.: March 2000).

11. U.S. Department of Health and Human Services, *Colorado 2000 State Health Profile*.
12. U.S. Department of Health and Human Services, Public Health Service, *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (Washington, D.C.: U.S. Government Printing Office, 1991), No. PHS 91-50212.
13. Colorado Division of Local Government, "Table 3A, Census 2000 Counts of Colorado County Population by Race/Ethnicity and Hispanic Origin."
14. U.S. Department of Health and Human Services, *Colorado 2000 State Health Profile*.
15. Health Care Financing Administration, Region VIII, *The Denver Regional Profile*, Denver, (September 1999): 7.
16. Colorado Department of Health and Environment, Division of Disease Control and Environmental Epidemiology, *Epidemiologic Profile of HIV and AIDS in Colorado through June 2000*, Denver, August 2000.
17. Centers for Disease Control and Prevention, Office for Social Environment and Health Research, West Virginia University, National Center for Chronic Disease Prevention and Health Promotion, "The Social Construction of Race," *Men and Heart Disease: An Atlas of Racial and Ethnic Disparities in Mortality*, Morgantown WV: June 2001, ISBN 0-9665085-2-1, 20.
18. Colorado Department of Health and Environment, Health Statistics Section, *Colorado Vital Statistics 1998*, Denver, March 1999.
19. Colorado Department of Health and Environment, Health Statistics Section, Colorado Vital Statistics, Data Set, *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*, prepared for the Colorado Turning Point Initiative, Denver, May 2001.
20. Asthma and Allergy Foundation of American, *Trends in the Cost of Illness for Asthma in the United States, 1984–1994*, Washington, D.C., September 2000. Online at www.aafa.org/highcosts.
21. Colorado Department of Public Health and Environment, Data set: *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
22. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics 1991–1999*, Denver, CO.
23. Colorado Department of Public Health and Environment, Data Set: *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
24. K. Gullo, "Violent Crime Against American Indians Rises," *Rocky Mountain News*, Denver, March 19, 2001: 24A.
25. Colorado Department of Public Health and Environment, Data Set: *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
26. U.S. Department of Health and Human Services, *Healthy People 2010*.
27. Colorado Department of Health and Environment, Data set: *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
28. Colorado Department of Health and Environment, Disease Control and Environmental Epidemiology Division, "Hepatitis and Tuberculosis in the Asian/Pacific Islander Community" (presentation at the Asian Leader and Asian Physician Summit, Westminster, Co., May 19, 2001).
29. U.S. Department of Health and Human Services, *Healthy People 2010*.
30. Katy Meng, data base analyst, Injury Prevention Program, Colorado Department of Health and Environment, personal communication, Denver, May 2001.
31. Colorado Department of Public Health and Environment, Data set, *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
32. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics 1999*, Table D40, Denver, May 2001.
33. Ibid.
34. U.S. Department of Health and Human Services, *Healthy People 2010*.
35. Colorado Department of Public Health and Environment, Health Statistics Section, Data Set, *Deaths, Crude Death Rates and Age-Adjusted Death Rate for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Colorado Residents, 1995–1999 Combined*, prepared for the Colorado Turning Point Initiative Denver, June 2001.
36. Colorado Department of Public Health and Environment, Colorado Central Cancer Registry, Data Set, *Age-Adjusted Incidence and Mortality Rates for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Annual Average 1995–1999, by Race and Ethnicity*, prepared for the Colorado Turning Point Initiative, Denver, June 14, 2001.
37. Colorado Department of Public Health and Environment, *Deaths, Crude Death Rates, and Age-Adjusted Death Rate for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Colorado Residents, 1995–1999 Combined*.
38. Ibid.
39. Colorado Department of Public Health and Environment, *Age-Adjusted Incidence and Mortality Rates for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Annual Average 1995–1999, by Race and Ethnicity*.
40. Ibid.
41. Colorado Department of Public Health and Environment *Deaths, Crude Death Rates, and Age-Adjusted Death Rate for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Colorado Residents, 1995–1999 Combined*.
42. U.S. Department of Health and Human Services. *Healthy People 2010*.
43. Colorado Department of Public Health and Environment, *Age-Adjusted Incidence and Mortality Rates for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Annual Average 1995–1999, by Race and Ethnicity*.
44. Colorado Department of Public Health and Environment, *Deaths, Crude Death Rates, and Age-Adjusted Death Rate for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Colorado Residents, 1995–1999*.
45. Colorado Department of Public Health and Environment, *Age-Adjusted Incidence and Mortality Rates for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Annual Average 1995–1999, by Race and Ethnicity*.
46. Colorado Department of Public Health and Environment, *Deaths, Crude Death Rates, and Age-Adjusted Death Rate for Selected Causes of Cancer Death by Gender and Race/Ethnicity, Colorado Residents, 1995–1999*.
47. Ibid.
48. National Institutes of Health, U.S. Department of Health and Human Services, "Diabetes in Blacks," NIH Publication No. 97-3266, March 1997. Available online: www.niddk.nih.gov.

49. National Institutes of Health, U.S. Department of Health and Human Services, "Diabetes in Hispanic Americans," NIH Publication No. 97-3266, April 1997. Available online: www.niddk.nih.gov.
50. Colorado Department of Public Health and Environment, *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
51. U.S. Department of Health and Human Services, *Healthy People 2010*.
52. Ibid.
53. Colorado Department of Public Health and Environment, *Colorado Vital Statistics 1999*.
54. Colorado Department of Public Health and Environment, *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
55. N. Krieger et al., *Racism, Sexism, and Social Class: Implications for Studies of Health, Disease, and Well-Being* (Atlanta, Ga.: Centers for Disease Control, 2000).
56. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*. 1992, Denver, July 1994.
57. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*. 1995, Denver, April 1997.
58. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*, 1998.
59. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*, 1999.
60. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*, 1995.
61. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*, 1998.
62. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics*. 1999.
63. Colorado Department of Public Health and Environment, Division of Disease Control and Epidemiology, Tuberculosis and Refugee Health Programs. Online at www.CDPHE.state.co.us/dc/TB/Tbhome.asp.
64. Colorado Department of Public Health and Environment, Division of Disease Control and Epidemiology, Tuberculosis and Refugee Health Programs, Data Set, *Average Annual TB Case Rates, 1996–2000, per 100,000*, prepared for the Colorado Turning Point Initiative, Denver, June 2001.
65. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Division of STD Prevention, *Sexually Transmitted Disease Surveillance 1998*, Atlanta, Ga., September 2000.
66. Colorado Department of Public Health and Environment, Division of Disease Control and Environmental Epidemiology, *Sexually Transmitted Diseases in Colorado, Surveillance Report: 1999*. Denver, 2000.
67. Ibid.
68. Colorado Department of Public Health and Environment, Division of Disease Control and Environmental Epidemiology, *HIV and AIDS in Colorado, Monitoring the Epidemic (through December 31, 1999)*, Denver, 2000.
69. Colorado Department of Public Health and Environment, Health Statistics Section, *Colorado Vital Statistics, Data Set, Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
70. U.S. Department of Health and Human Services, *Healthy People 2010*.
71. Institute of Medicine, Committee on Prevention and Control of Sexually Transmitted Diseases, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases* (Washington D.C.: National Academy Press, 1997), 18.
72. Ibid.
73. Ibid.
74. Colorado Department of Public Health and Environment, Data set: *Leading Causes of Death and Death Rates by Race/Ethnicity: Colorado Residents, Annual Average, 1995–1999*.
75. C. Easley Allen, "Elimination of Health Disparities: Possibilities for Turning Point" (Turning Point State Grantees and Collaborative Meeting, Portland, Ore., April 12, 2000).
76. U.S. Environmental Protection Agency Newsletter, *Open Doors*, Washington, D.C.: 2000.
77. C. Easley Allen, "Elimination of Health Disparities: Possibilities for Turning Point."
78. Grant Makers in Health, *Strategies for Reducing Racial and Ethnic Disparities in Health*, Issue Brief No. 5., Washington, DC, 2000.
79. J.E. South-Paul, "Racism in the Examination Room: Myths, Realities, and Consequences," *Journal of Family Medicine*, Vol. 33, No.6, (2001): 473–475.
80. Morrison R.S., et. al. We don't Carry That—Failure of Pharmacies in Predominantly Nonwhite Neighborhoods Stock Opioid Analgesics, *New England Journal of Medicine*, (2000): 342.
81. K. A. Schulmann, J. A. Berlin, and W. Harless, "The Effect of Race and Sex on Physicians' Recommendations for Cardiac Catheterization," *New England Journal of Medicine*, Vol. 340 (February 25, 1999): 618–626.
82. The Association of American Colleges and Universities, the National Association of City and County Health Officials, Georgetown University, *Race, Class, and Health in America*.
83. Centers for Disease Control and Prevention, *Men and Heart Disease: An Atlas of Racial and Ethnic Disparities in Mortality*.



The production of this document was
sponsored by the Colorado Department of
Public Health and Environment and a grant
from the Robert Wood Johnson Foundation.