OREGON HEALTH TRENDS

Center for Health Statistics (503) 731-4354
STATE OF OREGON • **HEALTH DIVISION** • DEPARTMENT OF HUMAN RESOURCES

MINORITY HEALTH:

Mortality Profiles of Oregon's Residents

SERIES NO. 47
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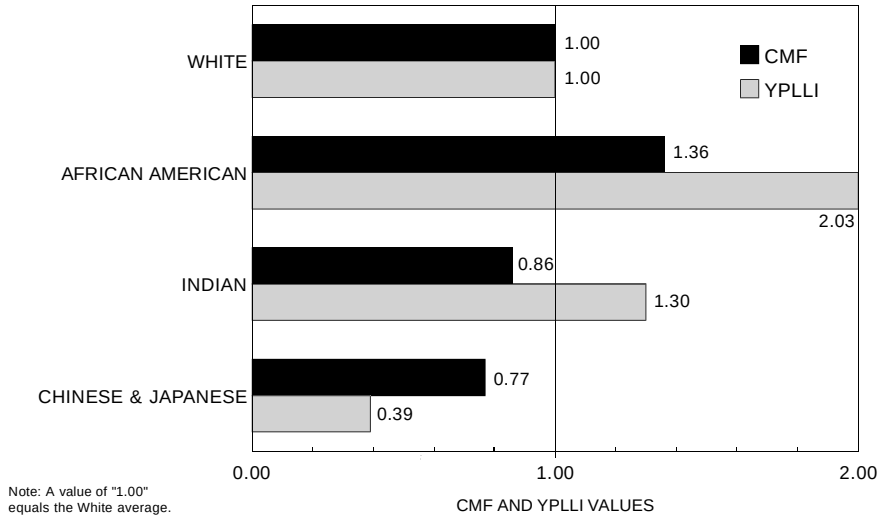
Not all Oregonians enjoy long and healthy lives, but the continuum from good health to poor health is often difficult to define. Death, in contrast, is a clearly defined event and has long been the single most reliable indicator of the health of a population.

Every decade, with the availability of new census information, the Center for Health Statistics, analyzes the mortality experience of Oregon's racial and ethnic minority populations. Our goal is to describe the mortality profile for all groups, but because the populations for some groups are small and the deaths few, this is not possible. Four groups (African Americans, Indians, Chinese and Japanese, and Hispanics) had sufficiently large populations to allow the calculation of meaningful statistics. A full range of statistics are available for the first three groups, but those for Hispanics are limited due to methodological considerations; these are described on pages 2 and 14.

The apparent mortality experience of Oregon's minority populations can be misleading. In all cases, the total crude death rates are lower than for the majority White population. But there is a paradox. While at

COMPARATIVE MORTALITY FIGURES AND YEARS OF POTENTIAL LIFE LOST INDICES BY RACE, OREGON RESIDENTS, 1986-1994



Note: A value of "1.00" equals the White average.

This newsletter is a synopsis of the soon to be released report "Multicultural Health: Mortality Patterns by Race and Ethnicity, Oregon, 1986-1994." For a copy, call (503) 731-4354.

CAUSES OF DEATH FOR WHITES, 1986-1994		
All Causes		220,842
1	Heart Disease	66,304
2	Cancer	53,007
3	Cerebrovascular Disease	18,093
4	COPD	11,629
5	Unintentional Injuries	9,636
6	Pneumonia & Influenza	7,632
7	Diabetes	4,303
8	Suicide	4,019
9	Alzheimer's Disease & Dementia	3,710
10	Arteriosclerosis	3,130
11	Other Artery Diseases	2,895
12	Alcoholism	2,784
13	AIDS	1,545
14	Hypertension	1,259
15	Parkinson's Disease	1,251

DISTRIBUTION OF OREGON DECEDENTS BY RACE	
Race	**%**
White	97.1
African American	1.3
Indian	0.6
Chinese & Japanese	0.4
Other	0.5

METHODOLOGY

Data were compiled from death certificates filed with the Oregon Health Division's Center for Health Statistics. Because the populations of minority groups are small and more youthful than the general Oregon population, an insufficient number of deaths occur in a single year to allow for meaningful analysis. Therefore, data for a nine-year period (1986-1994) were aggregated to provide more reliable rates. Oregon decedents in this study were overwhelmingly White (see sidebar). The U.S. Census Bureau was the source of the population data.[1]

The principal measures of mortality used herein were the age-adjusted death rate and years of potential life lost index. The age-adjusted death rate permits the comparison of populations with disparate age structures *as if* the populations had similar age distributions. The rate is computed by stratifying the populations into subsets by age, calculating an age-specific death rate for each group, then deriving a composite death rate by weighting each age category in proportion to its occurrence in the standard population. Oregon's 1990 age distribution is the standard used in this report. For example, only 6.7 percent of the resident African Americans were 65 or older, compared to 13.7 percent of all state residents. Consequently, the crude death rate is lower for African Americans (724.6) than for all races (889.0). However, when compensation is made for the influence of the young African American population, the age-adjusted death rate is two-thirds again as high (1,209.3) as the crude rate. Age-adjusted rates are meaningful only in comparison to other rates standardized in the same way and to the same population. All rates are per 100,000 population per year.

The comparative mortality figure is the ratio of the age-adjusted death rate for a minority group to the White death rate. A comparative mortality figure of less than one indicates the group under comparison has a lower death rate than Whites, while a figure of greater than one is higher. For example, the Indian comparative mortality figure for all causes was 0.86, indicating that their age-adjusted death rate was only 86 percent of that for Whites (i.e., 14 percent lower).

The years of potential life lost index emphasizes mortality occurring in younger age groups and assumes that each individual has 65 "productive" years, so that a death at age 21 results in 44 years of life lost. The index value for a race is the ratio of observed years of life lost to the expected number of years based on the White experience. For example, the African American years of potential life lost index of 1.34 for cancer means that proportionately 34 percent more years of potential life were lost by African Americans than by Whites. Subsets may be compared to Whites in the same manner as the comparative mortality figure. The statistical methods used herein, including tests for significance, have been described by Kleinman.[2]

Because no specific question regarding Hispanic ethnicity was recorded on death certificates until 1989, mortality information for this group is limited. Rates are not calculated, but actual counts, median age at death and years of potential life lost are included. (See the full report for detailed tables by race and ethnicity). Nineteen in 20 (94.5 percent) of Hispanic decedents were White; the others were Indian (2.2 percent), African American (1.0 percent), or Other (2.2 percent).

In this report, the terms *White*, *African American*, *Indian*, *Chinese and Japanese*, and *Hispanic* were used, chosen from several alternative choices. (The term "Indian" as used here includes only American Indians.) We recognize that within each group different individuals may have different preferences, but decided to use a single consistent term to describe each group to avoid nomenclatural confusion.

first glance Whites appear to have the least favorable mortality profile, this is a reflection of the different age distributions of the racial groups. After controlling for the age distribution differences by calculating age-adjusted death rates, it is clear that African Americans have the least favorable mortality profile and the Chinese and Japanese the most favorable.

This article focuses on the mortality patterns of African Americans and Indians because of their elevated risks of premature mortality as well as the availability of data for these two groups. Death (and its associated statistical measures) is the ultimate manifestation of the complex set of factors contributing to the health of a population, including income level, cultural practices, educational attainment, lifestyle choices, medical risk factors, geographic distribution, genetic background, and access to quality health care.

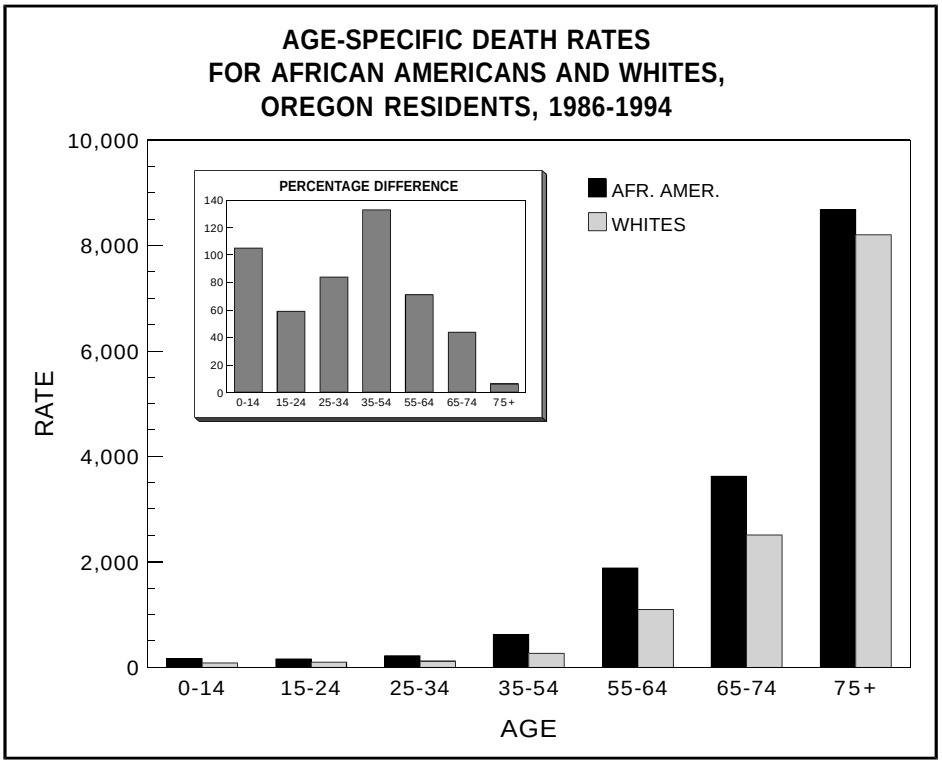
AFRICAN AMERICANS

During 1986-1994, African Americans were apparently at less risk of death than Whites; the crude death rates were 724.6 per 100,000 population and 914.0, respectively. But this is a reflection of the relative youth of the African American population rather than the actual risk of death within each age group. When age-adjusted death rates are calculated, the mortality risk for African Americans can be compared to Whites in a more meaningful fashion. The age-adjusted death rate for African Americans was 1,209.3 per 100,000 population versus 887.8 for Whites, a 36 percent difference. (Unless otherwise noted, age-adjusted or age-specific death rates are used in all subsequent rate comparisons between minority groups and Whites.) Age-adjusted death rates are summarized on page 13.

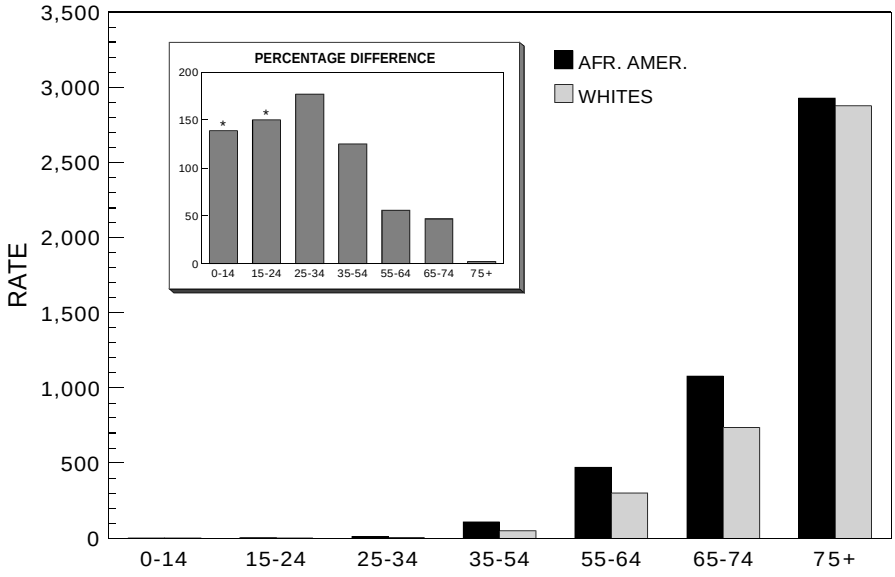
CAUSES OF DEATH FOR AFRICAN AMERICANS, 1986-1994

All Causes		3,066
1	Heart Disease	728
2	Cancer	652
3	Cerebrovascular Disease	241
4	Unintentional Injuries	184
5	Homicide	151
6	Diabetes	106
7	Pneumonia & Influenza	77
8	Perinatal Conditions	75
9	COPD	74
10	Alcoholism	73
11	AIDS	59
12	SIDS	53
13	Suicide	45
14	Hypertension	41
15	Other Artery Disease	37

AGE-SPECIFIC DEATH RATES FOR AFRICAN AMERICANS AND WHITES, OREGON RESIDENTS, 1986-1994



AGE-SPECIFIC HEART DISEASE DEATH RATES FOR AFRICAN AMERICANS AND WHITES, OREGON RESIDENTS, 1986-1994



* The African American rate is based on <6 deaths.

The median age at death was 76 for Whites, but only 65 for African Americans.

Not only were African American residents more apt to die, they were more apt to die prematurely. After adjusting for differences in population age structure, they lost proportionately twice as many years of potential life.

AGE AT DEATH

The total death rate among African Americans was elevated in every age group with the largest disparity occuring among the middle-aged; the death rate for 35- to 54-year-olds was 2.4 times higher than for Whites. The differences were less extreme among older age groups.

One measure of longevity is the median age at death. African Americans in Oregon had a median age at death of 65; that is, one-half of all deaths among African Americans occurred by age 65. This was fully 11 years less than the age for Whites. The difference was greatest for African American males, whose median age at death was 61 compared to 73 for White males; for females the ages were 69 for African Americans versus 79 for Whites. Life expectancy for African Americans nationally is only now at the level achieved for Whites three to four decades ago.[3] In 1993 (the year of the most current national data), African American life expectancy declined and the gap between African Americans and Whites widened.[4]

CAUSES OF DEATH

African Americans had *significantly* elevated age-adjusted death rates compared to Whites for all but two of their 10 leading causes of death: pneumonia and influenza, and chronic obstructive pulmonary disease. They also had the highest death rates of any race for all but three of their 10 leading causes; Whites had the highest death rates for chronic obstructive pulmonary disease, while Indians had the highest rates for unintentional injuries and alcoholism. The years of potential life lost indices for African

Americans were higher than for Whites for nine of their 10 leading causes of death.

Heart Disease

The preeminent cause of death among African Americans and Whites was heart disease, although it accounted for proportionately fewer African American deaths. Nonetheless, African Americans were 24 percent more likely to die in a given year from heart disease than were Whites. The age-adjusted death rates were 328.2 and 265.5, respectively. Not only was the death rate significantly higher, so was the years of potential life lost index (2.17). This means that not only were proportionately more African Americans dying from heart disease, they were dying at younger ages (based on White mortality patterns).

Cancer

African American Oregonians were 30 percent more likely to die from malignant neoplasms, the second leading cause of death; the age-adjusted death rate was 276.8 compared to 213.2 for Whites. As with heart disease, African Americans were more likely to die prematurely, losing proportionately 34 percent more years of potential life than Whites. Both of these differences were statistically significant. The greatest risk of premature death from malignant neoplasms occurred in adults aged 25 to 64 where the risk was half again as high as it was for Whites in those age groups.

Lung cancer (including cancer of the bronchus) was the most common fatal cancer and African Americans were one-third more likely to die from this largely preventable cancer than were Whites. The age-adjusted death rates were 83.8 and 63.4, respectively. The years of potential life lost index, too, was elevated, 1.40. Both of these differences were statistically significant.

Cerebrovascular Disease

The third leading cause of death for African Americans and Whites was cerebrovascular disease (e.g., stroke, cerebral embolism). However, an African American Oregonian was 53 percent more likely to die as a consequence of these conditions. The age-adjusted death rates were 110.9 and 72.3, respectively. Risk of premature death from this cause was very high among African Americans. The largest disparity occurred among 25- to 54-year-olds with the difference between African Americans and Whites trending downward in the older age groups. The years of potential life lost index was 3.98.

The risk of death from most chronic diseases was significantly higher for African Americans that for Whites.

Unintentional Injuries

The age-adjusted death rate for unintentional injuries was 27 percent higher for African Americans than for Whites, 50.4 compared to 39.6. The difference was significant. African Americans aged 35 to 64 were about twice as likely to die from unintentional injuries than Whites. However, the years of potential life lost index was only insignificantly higher (1.17).

Homicide

No cause of death so greatly differentiated African American Oregonians from all other Oregonians as homicide: African Americans were 7.5 times more likely than Whites to be murdered. The age-adjusted death rate for African Americans was 34.8 versus 4.6 for Whites. Homicide resulted in more years of potential life lost than any

African Americans were over seven times more likely to be murdered than Whites.

LEADING CAUSES OF DEATH BY AGE AND RACE, OREGON RESIDENTS, 1986-1994

WHITE				AFRICAN AMERICAN			
0-14 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	4,093	100.0	79.6	TOTAL	215	100.0	168.3
Perinatal Conditions	967	23.6	18.8	Perinatal Conditions	75	34.9	58.7
SIDS	763	18.6	14.8	SIDS	53	24.7	41.5
Congenital Anomalies	751	18.3	14.6	Unintentional Injuries	28	13.0	21.9
Unintentional Injuries	696	17.0	13.5	Congenital Anomalies	24	11.2	18.8
Cancer	177	4.3	3.4	Homicide	8	3.7	6.3
15-24 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	3,040	100.0	96.4	TOTAL	116	100.0	155.7
Unintentional Injuries	1,677	55.2	53.2	Homicide	54	46.6	72.5
Suicide	557	18.3	17.7	Unintentional Injuries	27	23.3	36.2
Homicide	196	6.4	6.2	Suicide	15	12.9	20.1
Cancer	156	5.1	4.9	Heart Disease	3	2.6	4.0
Undetermined Injuries*	62	2.0	2.0	Cerebrovascular Dis.	3	2.6	4.0
25-34 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	4,438	100	116.7	TOTAL	168	100.0	219.7
Unintentional Injuries	1,494	33.7	39.3	Homicide	44	26.6	57.5
Suicide	720	16.2	18.9	Unintentional Injuries	29	17.3	37.9
AIDS	484	10.9	12.7	AIDS	18	10.7	23.5
Cancer	439	9.9	11.5	Cancer	13	7.7	17.0
Homicide	291	6.6	7.7	Heart Disease	11	6.5	14.4
35-54 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	17,224	100.0	261.6	TOTAL	582	100.0	621.0
Cancer	5,082	29.5	77.2	Cancer	105	18.0	112.0
Heart Disease	3,210	18.6	48.8	Heart Disease	103	17.7	109.9
Unintentional Injuries	2,139	12.4	32.5	Unintentional Injuries	65	11.2	69.4
Suicide	1,285	7.5	19.5	Alcoholism	37	6.4	39.5
AIDS	904	5.2	13.7	AIDS	36	6.2	38.4
55-64 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	22,520	100.0	1,099.9	TOTAL	419	100.0	1,881.0
Cancer	8,787	39.4	429.2	Cancer	150	35.8	673.4
Heart Disease	6,181	27.4	301.9	Heart Disease	105	25.1	471.4
COPD**	1,274	5.7	62.20	Cerebrovascular Dis.	22	5.3	98.8
Cerebrovascular Dis.	846	3.8	41.3	Alcoholism	18	4.3	80.8
Alcoholism	791	3.5	38.6	Diabetes	15	3.6	67.3
65-74 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	49,270	100.0	2,510.0	TOTAL	649	100.0	3,623.7
Cancer	16,982	34.5	865.1	Cancer	200	30.8	1,116.7
Heart Disease	14,419	29.3	734.6	Heart Disease	193	29.7	1,077.6
COPD**	3,911	7.9	199.2	Cerebrovascular Dis.	67	10.3	374.1
Cerebrovascular Dis.	2,827	5.7	144.0	Diabetes	32	4.9	178.7
Diabetes	1,141	2.3	58.1	COPD**	19	2.9	106.1
75+ YEARS							
	#	%	RATE		#	%	RATE
TOTAL	120,257	100.0	8,204.4	TOTAL	917	100.0	8,686.2
Heart Disease	42,176	35.1	2,877.4	Heart Disease	309	33.7	2,927.0
Cancer	21,384	17.8	1,458.9	Cancer	179	19.5	1,695.6
Cerebrovascular Dis.	13,854	11.5	945.2	Cerebrovascular Dis.	113	12.3	1,070.4
Pneumonia & Influenza	6,184	5.1	421.9	Diabetes	42	4.9	397.8
COPD**	6,135	5.1	418.6	Pneumonia & Influenza	32	3.5	303.1

Rates Per 100,000 Population.

* Injuries undetermined whether purposely or unintentionally inflicted.
** Chronic obstructive pulmonary disease.

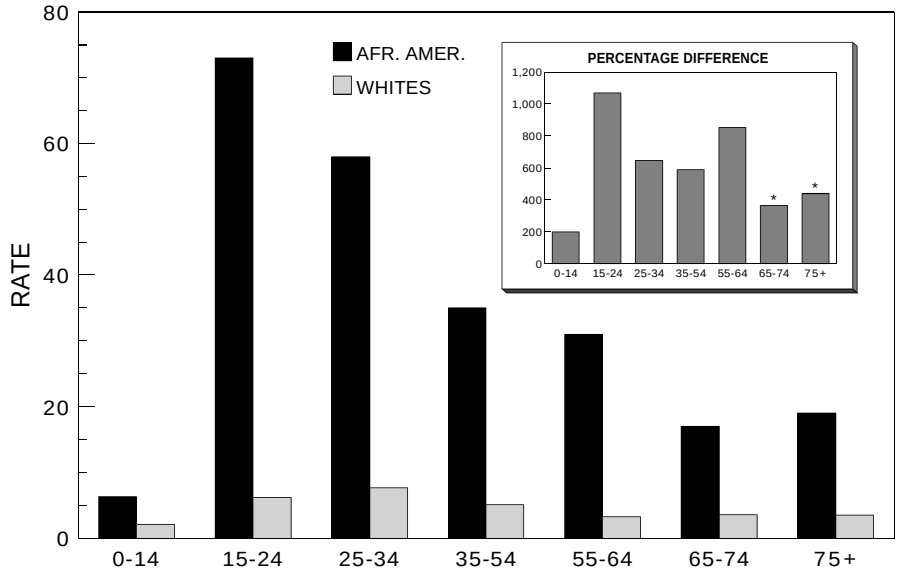
LEADING CAUSES OF DEATH BY AGE AND RACE, OREGON RESIDENTS, 1986-1994

INDIAN				CHINESE AND JAPANESE			
0-14 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	98	100.0	91.6	TOTAL	18	100.0	43.5
Unintentional Injuries	25	25.5	23.4	SIDS	3	16.7	7.3
SIDS	24	24.5	22.4	Homicide	3	16.7	7.3
Perinatal Conditions	15	15.3	14.0	Congenital Anomalies	2	11.1	4.8
Congenital Anomalies	11	11.2	10.3	Perinatal Conditions	2	11.1	4.8
Homicide	4	4.1	3.7	Suicide	1	5.6	2.4
15-24 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	77	100.0	118.8	TOTAL	13	100.0	27.7
Unintentional Injuries	42	54.5	64.8	Unintentional Injuries	7	53.8	14.9
Suicide	18	23.4	27.8	Suicide	4	30.8	8.5
Homicide	9	11.7	13.9	Homicide	1	7.7	2.1
Cancer	2	2.6	3.1	Other	1	7.7	2.1
Pneumonia & Influenza	2	2.6	3.1				
25-34 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	129	100.0	198.7	TOTAL	11	100.0	21.6
Unintentional Injuries	56	43.4	86.3	Homicide	3	27.3	5.9
Homicide	19	14.7	29.3	Suicide	2	18.2	3.9
Suicide	16	12.4	24.6	Unintentional Injuries	2	18.2	3.9
Alcoholism	10	7.8	15.4	Heart Disease	1	9.1	2.0
AIDS	7	5.4	10.8	Cancer	1	9.1	2.0
35-54 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	320	100.0	356.2	TOTAL	59	100.0	102.2
Heart Disease	62	19.4	69.0	Cancer	30	50.8	52.0
Unintentional Injuries	58	18.1	64.6	Heart Disease	6	10.2	10.4
Alcoholism	55	17.2	61.2	Cerebrovascular Dis.	5	8.5	8.7
Cancer	43	13.4	47.9	Suicide	3	5.1	5.2
Homicide	18	5.6	20.0	Unintentional Injuries[1]	2	1.4	3.5
55-64 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	218	100.0	1,103.5	TOTAL	142	100.0	743.2
Heart Disease	66	30.3	334.1	Cancer	67	47.2	350.7
Cancer	65	29.8	329.0	Heart Disease	28	19.7	146.5
Alcoholism	18	8.3	91.1	Cerebrovascular Dis.	14	9.9	73.3
Diabetes	14	6.4	70.9	Diabetes	5	3.5	26.2
Unintentional Injuries	8	3.7	40.5	COPD**	3	2.1	15.7
65-74 YEARS							
	#	%	RATE		#	%	RATE
TOTAL	271	100.0	2,188.3	TOTAL	213	100.0	1,510.3
Cancer	79	29.2	637.9	Cancer	78	36.6	553.1
Heart Diease	76	28.0	613.7	Heart Disease	54	25.4	382.9
COPD**	19	7.0	153.4	Cerebrovascular Dis.	14	6.6	99.3
Diabetes	17	6.3	137.3	Diabetes	10	4.7	70.9
Alcoholism	12	4.4	96.9	Unintentional Injuries	9	4.2	63.8
75+ YEARS							
	#	%	RATE		#	%	RATE
TOTAL	346	100.0	5,720.9	TOTAL	419	100.0	7,798.2
Heart Disease	120	34.7	1,984.1	Heart Disease	145	34.6	2,698.7
Cancer	68	19.7	1,124.3	Cancer	69	16.5	1,284.2
Cerebrovascular Dis.	26	7.5	429.9	Cerebrovascular Dis.	41	9.8	763.1
Pneumonia & Influenza	21	6.1	347.2	Pneumonia & Influenza	23	5.5	428.1
Diabetes	15	4.3	248.0	Diabetes	17	4.1	316.4

* Injuries undetermined whether purposely or unintentionally inflicted.
** Chronic obstructive pulmonary disease.

1. Also tied for fifth were deaths due to pneumonia and influenza and AIDS.

AGE-SPECIFIC HOMICIDE DEATH RATES FOR AFRICAN AMERICANS AND WHITES, OREGON RESIDENTS, 1986-1994



* The African American rate is based on < 6 deaths.

The largest disparity in age-adjusted death rates between African Americans and Whites was recorded for homicides. The second largest disparity was seen in diabetes deaths.

other cause except unintentional injuries. African Americans ages 15 to 24 were at the greatest risk; the death rate (72.5) for this group was *twelve* times higher than the rate for all similarly aged Whites (6.2). Even African American children under 15 years old were at a greater risk; they were three times more likely to be murdered than White children. The years of potential life lost index was 7.60; it and the age-adjusted death rate were both statistically significantly higher for African Americans compared to Whites.

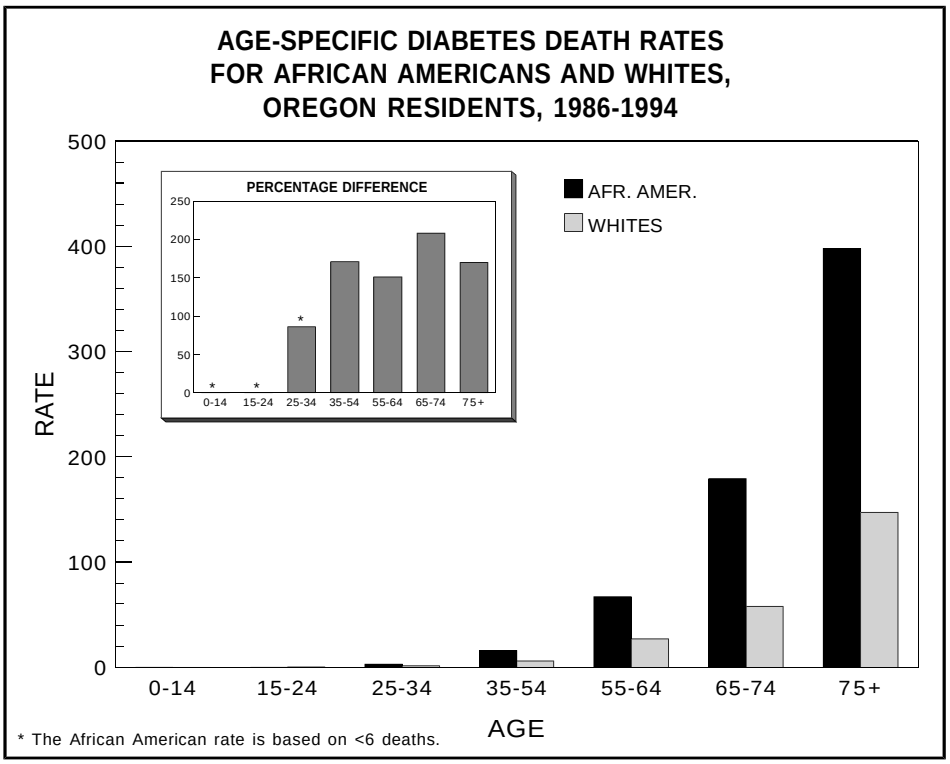
About one-tenth of all homicide victims in Oregon were African American, yet this minority comprises less than one-sixtieth of the state's population. Furthermore, while one in 20 African American deaths resulted from homicide, only one in 198 White deaths were from this cause. Nationally, 92 percent of African American victims were slain by African American assailants.[5]

Diabetes Mellitus

Diabetes, the sixth leading cause of death among African Americans, occurred proportionately 2.8 times more often in this group than among Whites. The age-adjusted death rates were 47.7 and 17.3, respectively. Both the age-adjusted death rate and the years of potential life lost index (2.34) were statistically significantly higher for African Americans compared to Whites. Statewide, the diabetes death rate has increased substantially in recent years.

Pneumonia and Influenza

Although African Americans were not significantly more likely to die from pneumonia and influenza, they lost significantly more years of potential life. African Americans ages 25 to 54 were almost seven times more likely to die from this cause than Whites the same age. Consequently, the years of potential life lost index was very high, 3.63.



Chronic Obstructive Pulmonary Disease

The cause-specific age-adjusted death rates for African Americans were higher than for Whites for all but one of their ten leading causes of death: chronic obstructive pulmonary disease (COPD) was the exception. But while the age-adjusted death rate for this cause was significantly low (just 29.7 compared to 46.6 for Whites), the years of potential life lost index (3.73) was significantly high, indicating that while African Americans were less likely to die from COPD, when they did die, it was at a younger age.

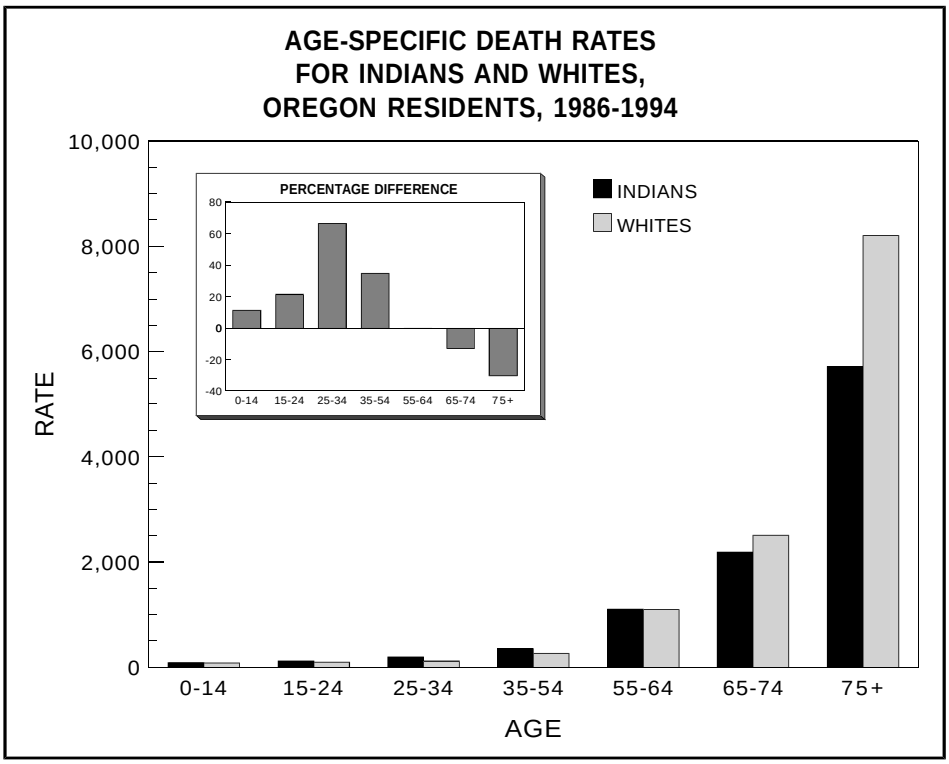
Alcoholism

African American Oregonians were 2.2 times more likely to die from alcoholism and its related disorders than were Whites. The age-adjusted death rates were 24.8 for the former and 11.3 for the latter. (If injury deaths that involved alcohol were included here, the death rates would be substantially higher.) The largest disparity in death rates between African Americans and the majority population occurred among 25- to 34-year-olds; the death rate for African Americans (6.5) was over three times higher than the White rate (1.9). This was reflected in the high years of potential life lost index, 2.98. Both the years of potential life lost index and age-adjusted death rates were statistically significantly higher for African Americans than for Whites.

African Americans were significantly less likely to die from chronic obstructive pulmonary disease.

Acquired Immune Deficiency Syndrome

The epidemic of AIDS has shown no sign of abating and especially hard hit are African American Oregonians. At 15.8, their age-adjusted death rate was 2.5 times higher than the White rate of 6.4. The years of potential life lost index was similarly elevated (2.18). At greatest risk were African American 35- to 54-year olds.



CAUSES OF DEATH FOR AMERICAN INDIANS, 1986-1994		
All Causes		1,459
1	Heart disease	330
2	Cancer	261
3	Unintentional Injuries	201
4	Alcoholism	99
5	Cerebrovascular Disease	60
6	Homicide	54
7	Suicide	50
8	Diabetes	49
9	COPD	42
10	Pneumonia & Influenza	41
11	SIDS	24
12	Perinatal Conditions	15
13	AIDS	14
14	Arteriosclerosis	13
14	Congenital Anomalies	13

INDIANS

Like African Americans, the mortality experience of Indians was worse than the crude death rate (400.1 per 100,00 population) would indicate. However, although substantially higher than the crude death rate, the age-adjusted death rate for Indians was 14 percent lower than the rate for Whites, 761.9 per 100,000 population compared to 887.8. At the same time, however, the years of potential life lost index was significantly higher (30 percent). This apparent paradox, in fact, illustrates the hazard faced by young Indians; relative to Whites they were much more apt to die prematurely.

AGE AT DEATH

Compared to Whites, the greatest risk of premature death for an Indian was between ages 25 and 34. However, for those Indians who reached their sixty-fifth birthday the risk of death was less than for Whites. One-half of all Indians died by age 60. By comparison, the median age for Whites was 76. The difference was greatest for Indian males whose median age at death was 55, far short of the 73 for White males. For females the ages were 66 and 79, respectively.

CAUSES OF DEATH

Of the six leading causes of death among Indians, three were directly due to external causes: unintentional injuries, alcoholic diseases, and homicide. Unlike African Americans, however, these were the only three causes with age-adjusted death rates higher than the rates for Whites. In fact, an Indian's risk of death from heart disease, cancer, or cerebrovascular disease was significantly less than that of Whites. (Age-adjusted death rates are summarized on page 13.)

Heart Disease

As with Whites, more Indians died from heart disease than any other cause. Although the age-adjusted death rate for Indians was 20 percent lower than for Whites, 212.0 compared to 265.5, the years of potential life lost index was significantly higher, 1.31. So, although Indians were less likely to die from heart disease, they were more likely to die prematurely, losing proportionately 30 percent more years of life than Whites. Most of these lost years resulted from the elevated risk of death among 35- to 54-year-olds; the death rate was 41 percent higher for Indians in this age group than for Whites.

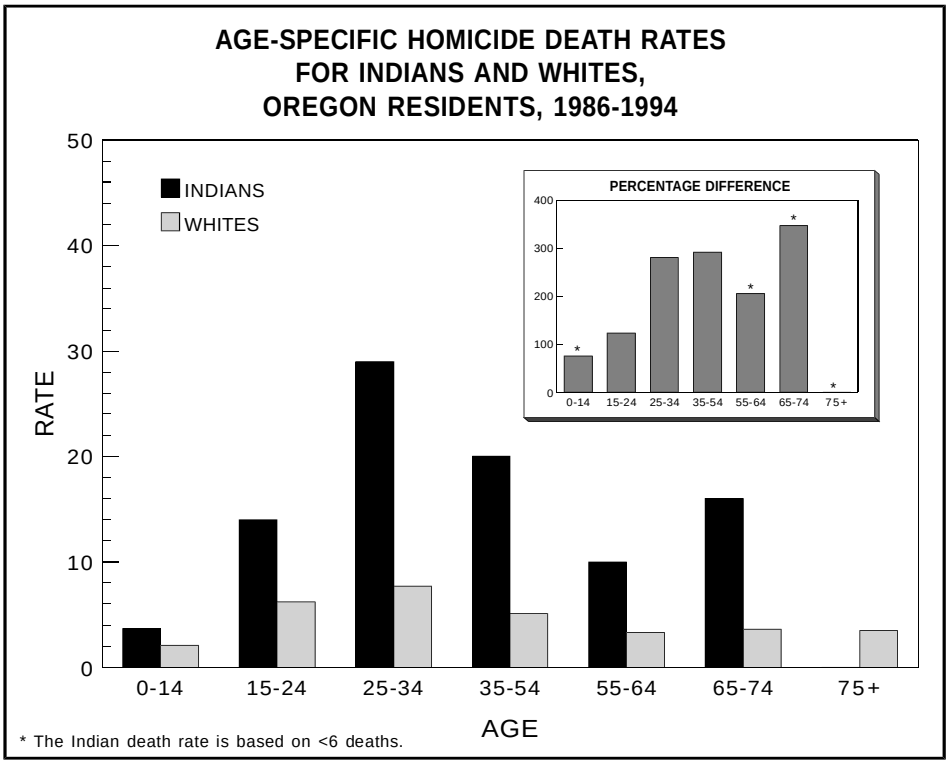
Cancer

Indians were 26 percent less likely to die from malignant neoplasms than Whites, a significant difference. The age-adjusted death rates were 157.6 and 213.2. In fact, the age-specific death rates were lower in every age category for Indians. Consequently, the years of potential life lost index was significantly low (0.58), nearly as low as for the Chinese and Japanese (0.56). The death rate was the lowest for any racial group.

Indians were significantly less likely to die prematurely from cancer.

Unintentional Injuries

No other racial group was more likely to die from unintentional injuries than were Indians. Their age-adjusted death rate (57.9) was 46 percent higher than the White rate (39.6), a significant difference. Not only were they more apt to die from this cause, they were far more likely to die prematurely, losing proportionately 67 percent more years of potential life than Whites. The greatest disparity in age-specific death rates was among 25- to 34-year-olds; Indians were more than twice as likely to die from unintentional injuries. Almost half (48 percent) of



Alcoholism, homicide and unintentional injuries pose particular risks to Indians.

all deaths by Indians in that age group resulted from such injuries.

Alcoholism

One in fifteen Indians died from the natural effects of alcohol, compared to one in 79 Whites. Alcoholism was the fourth leading cause of death among Indians, with an age-adjusted death rate of 38.1. This was 3.4 times higher than the White rate of 11.3. By age, the greatest disparity was recorded among 25- to 34-year-olds; Indians were 8.1 times more likely to die from alcohol use. In older age groups, the Indian death rates were 2.4 to 4.8 times higher than those for Whites. Clearly, alcoholism posed the greatest risk differential by cause in terms of premature mortality; the years of potential life lost index was 4.92. As with unintentional injuries, both this measure of mortality and the age-adjusted death rate were statistically significantly higher than for the majority population.

Cerebrovascular Disease

This, the fifth leading cause of death among Indians, posed less of a risk overall but disproportionately claimed 25- to 54-year-olds. The age-adjusted death rate was only about half the White rate, 40.6 compared to 72.3. But at the same time the years of potential life lost index was 1.57. The former was statistically significantly different while the latter was not.

Homicide

An Indian was over three times more apt to be murdered than a White Oregonian. Homicide was the sixth leading cause of death among Indians, but seventeenth for Whites. The age-adjusted death rate for Indians was 14.9 compared to 4.6 for Whites, a significant difference. Unlike African Americans where the homicide rate was highest among 15- to 24-year-olds, among Indians, 25- to 34-year-olds were most apt to

AGE-ADJUSTED DEATH RATES AND PROPORTIONAL MORTALITY BY RACE, OREGON RESIDENTS, 1986-1994

CAUSE	ALL RACES		WHITE		AFRICAN AMERICAN		INDIAN		CHINESE & JAPANESE	
	RATE	%	RATE	%	RATE	%	RATE	%	RATE	%
All Causes	889.0	100.0	887.0	100.0	1,209.0	100.0	761.9	100.0	680.4	100.0
Heart Disease	265.1	29.8	265.5	30.0	328.2	23.7	212.0	22.6	203.1	26.7
Cancer	212.6	23.9	213.2	24.0	276.8	21.3	157.6	17.9	162.1	28.0
Lung Cancer	*63.0*	*7.1*	*63.4*	*7.1*	*83.8*	*6.4*	*55.0*	*6.2*	-	*5.1*
Cerebrovascular Disease	72.5	8.2	72.3	8.2	110.9	7.9	40.6	4.1	60.8	8.5
COPD*	46.1	5.2	46.6	5.3	29.7	2.4	-	2.9	-	2.5
Unintentional Injuries	40.0	4.5	39.6	4.4	50.4	6.0	57.9	13.9	-	4.3
Motor Vehicle	*19.8*	*2.2*	*19.7*	*2.1*	*17.7*	*2.2*	*30.4*	*7.4*	-	*2.5*
Pneumonia & Influenza	30.5	3.4	30.5	3.5	33.0	2.5	-	2.8	-	3.2
Diabetes	17.6	2.0	17.3	1.9	47.7	3.5	-	3.4	-	3.7
Suicide	16.3	1.8	16.5	1.8	-	1.5	13.3	3.4	-	1.5
Alcoholism	11.6	1.3	11.3	1.3	24.8	2.4	38.1	6.8	-	0.2
AIDS	6.4	0.7	6.4	0.7	15.8	1.9	-	1.0	-	0.3
Homicide	5.4	0.6	4.6	0.5	34.8	4.9	14.9	3.7	-	0.9

RATES PER 100,000 POPULATION.

AGE-ADJUSTED RATES WERE NOT CALCULATED FOR RACE-CAUSE COMBINATIONS TOTALING FEWER THAN 50 EVENTS.

*CHRONIC OBSTRUCTIVE PULMONARY DISEASE.

be murdered. Indians lost proportionately more years of potential life from this cause than Whites; at 2.86, the index was significantly higher. Homicide and suicide were tied as the third leading cause of years of potential life lost following unintentional injuries and heart disease.

Suicide

Overall, Indians were 20 percent less likely to commit suicide than were Whites. The age-adjusted death rates were 13.3 and 16.5, respectively. But this masks the risk among young Indians, and in particular to 15- to 24-year-olds. Their death rate (27.8) was 57 percent higher than the White rate (17.7). The years of potential life lost index was 1.23, but neither this nor any of the other measures of suicide were statistically significantly different compared to those of the majority population.

CHINESE AND JAPANESE

Oregonians of Chinese and Japanese ancestry possessed the most favorable mortality profile. Their age-adjusted death rate (680.4 per 100,000 population) was 23 percent lower than for Whites (887.8) while their years of potential life lost index was 0.39. Both were significantly low and the lowest in the state. The crude death rate for this group was 371.5.

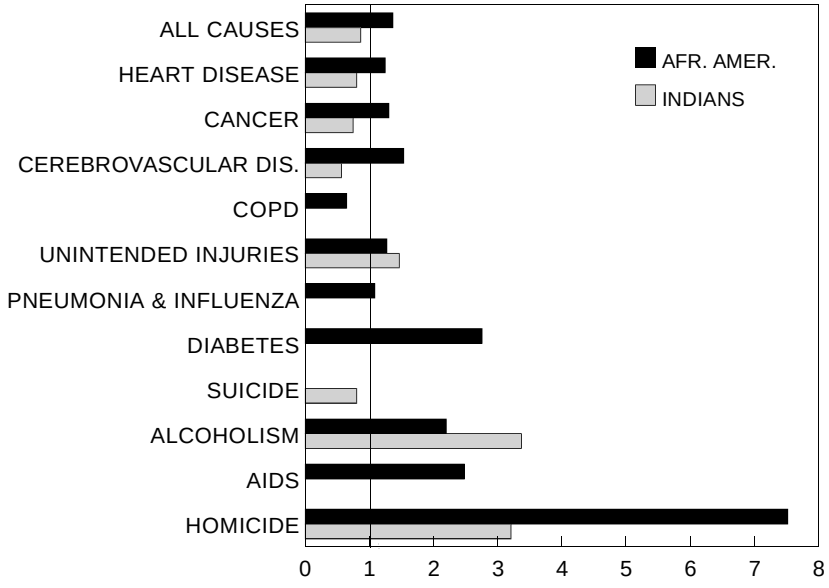
AGE AT DEATH

At no age was the death rate for Chinese and Japanese higher than the rate for Whites. And with one exception, their age-specific rates were the lowest for any race. This mortality differential was greatest among younger residents; in fact, Chinese and Japanese aged 25 to 34 were only about one-fifth

CAUSES OF DEATH FOR CHINESE AND JAPANESE, 1986-1994

All Causes		875
1	Cancer	245
2	Heart Disease	234
3	Cerebrovascular Disease	74
4	Unintentional Injuries	38
5	Diabetes	32
6	Pneumonia & Influenza	28
7	COPD	22
8	Suicide	13
9	Arteriosclerosis	12
9	Other Artery Disease	12
11	Hypertension	10
12	Homicide	8
13	Alzheimer's Disease & Dementia	7
14	Parkinson's Disease	6
14	Nephritis & Nephrosis	6

COMPARATIVE MORTALITY FIGURES BY RACE AND CAUSE, OREGON RESIDENTS, 1986-1994



Note: A comparative mortality figure of "1" equals the White average.

CAUSES OF DEATH FOR HISPANICS, 1988-1994

All Causes		1,794
1	Unintentional Injuries	372
2	Heart Disease	262
2	Cancer	262
4	Cerebrovascular Disease	95
5	Homicide	88
6	Perinatal Conditions	84
7	Diabetes	68
8	Suicide	59
9	Alcoholism	56
10	Congenital Anomalies	55
11	AIDS	47
12	SIDS	40
13	Pneumonia & Influenza	31
14	COPD	24
15	Injuries Undetermined Whether Intentionally or Unintentionally Inflicted	19

as likely to die as were Whites. Only one group had a median age at death equal to Whites, Chinese and Japanese males. One-half died by age 73. For females the figures were 75 for the Chinese and Japanese and 79 for Whites. For both sexes combined, the ages were 74 and 76, respectively.

CAUSES OF DEATH

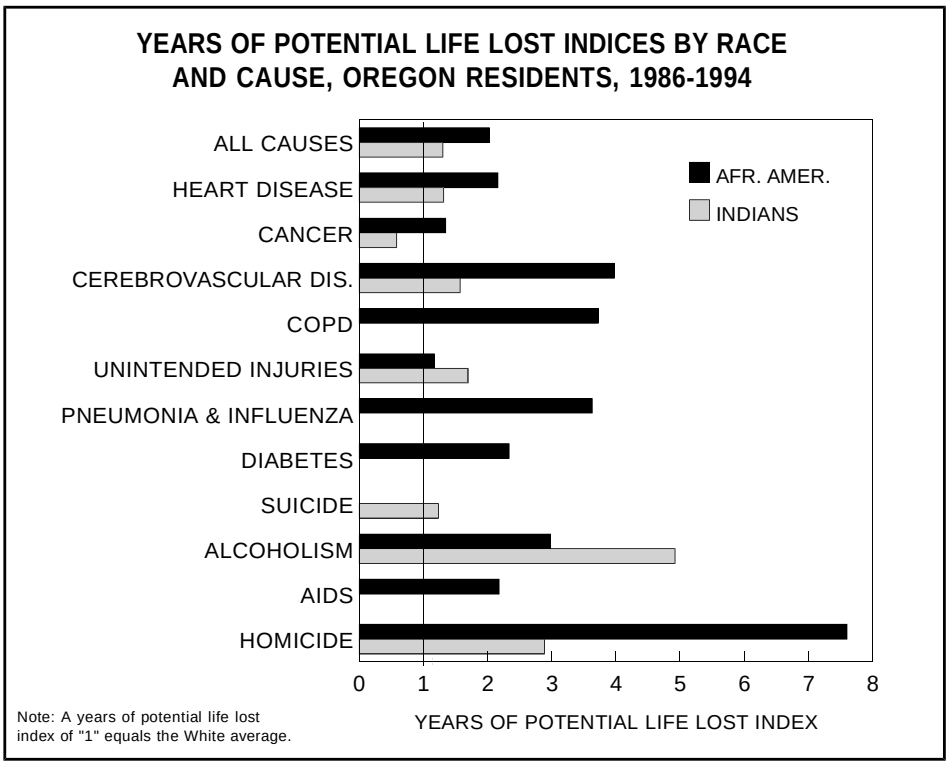
Only heart disease, cancer, and cerebrovascular disease accounted for more than 50 deaths among the Chinese and Japanese. For each of these causes, the measures of mortality were lower than for those of Whites; the age-adjusted death rates and years of potential life lost indices were significantly lower for heart disease and cancer.

HISPANICS

Because of changes in the method of collecting information regarding Hispanic decedents during the study period, reliable death rates could not be calculated for this group. At the same time, the 1990 census undercounted Hispanics; the undercount is believed to be especially pronounced for younger males. Moreover, the number of Hispanics in Oregon is believed to be growing rapidly, as well, making rate calculations problematic. However, the number of deaths, median age at death, and years of potential life lost could be computed for the period 1988-1994.

AGE AT DEATH

The median age at death for Hispanic Oregonians was far lower than for all others. There was a strong gender dichotomy within the minority itself; the median age for males was 39 but 64 for females. For both sexes combined it was 47. By cause, the Hispanic median ages at death most closely resembled those for African Americans and Indians. These disparate measures likely re-



flect, at least in part, the younger age distribution of Oregon Hispanics relative to non-Hispanics, particularly among males.

Injuries

Thirty percent of all Hispanic deaths resulted from injuries. Two-thirds of these were from unintentional injuries, making them the leading cause of death. Hispanics were proportionately several times more likely to die from unintentional injuries (based on the percentage distribution). In Oregon, unintentional injuries accounted for a larger fraction of the total Hispanic deaths in all age groups except for children under 15 and persons 75 or older. Like African Americans and Indians, Hispanics were more likely to die from a homicide than a suicide. Homicide accounted for proportionately more than twice as many deaths among Hispanics ages 15 to 64 than it did for all residents of those ages.

Natural Causes

Hispanics were as likely to die from heart disease as from cancer. However, these causes accounted for proportionately fewer deaths in nearly all age groups among Hispanics. Although certain causes of death are apparently more common among Hispanics, the overall health status of this group is better than expected on the basis of socioeconomic status alone.[6]

As with African Americans and Indians, unintentional injuries and homicide accounted for a far greater proportion of Hispanic deaths.

CONCLUSIONS

African Americans and Indians, the two groups with poorest mortality profiles, share certain historical experiences: generations have been subjected to violence and discrimination by the majority population. They have lived in poverty, received inadequate education, and been forced to abandon their traditional ways of life and language. The consequences are mirrored in

their health.

The measures of mortality clearly show that African American Oregonians had the least favorable health profile. Their age-adjusted death rates and years of potential life lost indices were significantly higher for nearly all chronic diseases as well as for unintentional injuries and homicides. The homicide rate is particularly striking: it was 7.5 times higher than for Whites.

Indians, too, were at a greater risk of premature death, although their overall age-adjusted death rate was lower than for Whites. Unlike African Americans, their age-adjusted death rates were significantly elevated for only three causes: alcoholism, homicide and unintentional injuries. However, when death occurred it was significantly more likely to occur prematurely for nearly every cause.

Data limitations make definitive conclusions about Hispanics difficult, but they may be facing special risks from unintentional injuries, homicides, alcoholism and diabetes.

Oregonians of Chinese and Japanese ancestry had the most favorable mortality profile; both the age-adjusted death rate and years of potential life lost index were the lowest recorded for any race.

Race and ethnicity *per se* are rarely determinants of the health of a population. Rather, they should be seen as a surrogate indicator of a complex interplay of cultural, biological, and socioeconomic factors. Differences in socioeconomic status, culture, and lifestyle are thought to account for the lower mortality experienced by the Chinese and Japanese. The low death rates for causes associated with risky behaviors, such as smoking and excess alcohol consumption have been cited in support of this hypothesis.[7]

Every cause of death for Oregon's minorities has preventable risk factors. Among the most salient are smoking, poor dietary habits, lack of exercise, alcohol use, and stress. It is believed that the number of excess deaths among minority groups can be substantially reduced through culturally appropriate community health education about these lifestyle issues, adherence to medical regimens, and increased availability and use of preventive services.[7] Plainly more challenging, however, is improving the level of household income, an often important predictor of morbidity and mortality.

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