San Francisco Burden of Disease and Injury: Mortality Analysis, 1990–1995

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EXECUTIVE SUMMARY

The San Francisco Department of Public Health's Division of Population Health and Prevention has completed a comprehensive and systematic analysis of the burden of premature mortality from disease and injury experienced by residents of the City and County of San Francisco. This analysis, using methods from the World Health Organization's recent study, *The Global Burden of Disease*[1], revealed the leading causes of death for San Francisco residents by age, sex, ethnicity, and neighborhood, showing those causes which are most important. Furthermore, we estimated how much of the burden of premature death could be prevented, if factors known to contribute to these causes of deaths were removed. Thus, this analysis provides a detailed profile of the mortality burden from disease and injury for the residents of San Francisco, and can serve to guide prevention efforts.

Using death certificates for San Francisco residents, we collected the sex, age, ethnicity, ZIP code and underlying cause of death for the six-year period 1990 through 1995. For each demographic group, we calculated the number of deaths due to each cause, and estimated how much longer people would have been expected to live had they not died of that cause. This measure, the standard expected years of life lost (SEYLL), thus provides a measure of the importance of each cause of death. The model life table standard used for this study, adapted from that used by the World Health Organization (WHO) Global Burden of Disease Study, has a life expectancy at birth of 82.5 years. The same life expectancy standard was applied to male and female deaths. We also calculated, for each demographic group, the age-adjusted mortality rates, which allowed us to compare death rates for different causes between populations composed of different numbers of older and younger people. We finally calculated the life expectancy, at different ages, of members of each demographic group, and also the expected improvement in life expectancy in the absence of a leading cause of death.

To identify and rank the leading causes of death, we used standard expected years of life lost. This measure gives greater weight to more premature deaths, which are usually more preventable. Causes of death that are more common in younger persons (e.g., unintentional injuries) tend to have higher rankings when ordered by SEYLL than by other mortality measures. The total expected years of life lost from any particular cause is then calculated by adding up the expected years of life lost for each individual who died. However, these summed SEYLL estimates cannot be used to compare various demographic groups with each other because each group has a different mix of older and younger people. To compare causes of mortality between ethnic groups, and to identify disparities between ethnic groups and between men and women, we calculated age-adjusted death rates.

Unlike many other analyses of mortality data, we not only used broad groupings of causes, such as cancer or unintentional injury, but also analyzed the data for more specific causes, such as lung cancer or suicide. More specific causes are useful for developing prevention priorities and strategies. To further the focus on prevention, we also linked specific causes of death to determinants or risk factors that are known to contribute to a large share of deaths in the U.S.

Principal findings

Leading causes of death

During the six-year period 1990 through 1995, there were 48 424 deaths to San Francisco residents or occurring in San Francisco to persons of unknown residence (1 066 deaths). These deaths represented a total of 1.07 million standard expected years of life lost. Overall and for males, AIDS was the leading cause of premature mortality, followed by ischemic heart disease, lung cancer, stroke, and drug poisoning (Figure 1, p. 2). For females, ischemic heart disease was the leading cause of death, followed by stroke, lung cancer, breast cancer, and pneumonia.

The key findings were the following:

- AIDS was by far the leading cause of death overall and among men (Figure 1). 6 832 San Francisco residents died from AIDS, representing 300 755 standard expected years of life lost (Table 1). Male mortality from AIDS numbered 6 650 deaths and 292 636 standard expected

[1] Murray CJL and Lopez AD (Editors). *Global Burden of Disease*, Global Burden of Disease and Injury Series, Volume I. Harvard University Press 1996

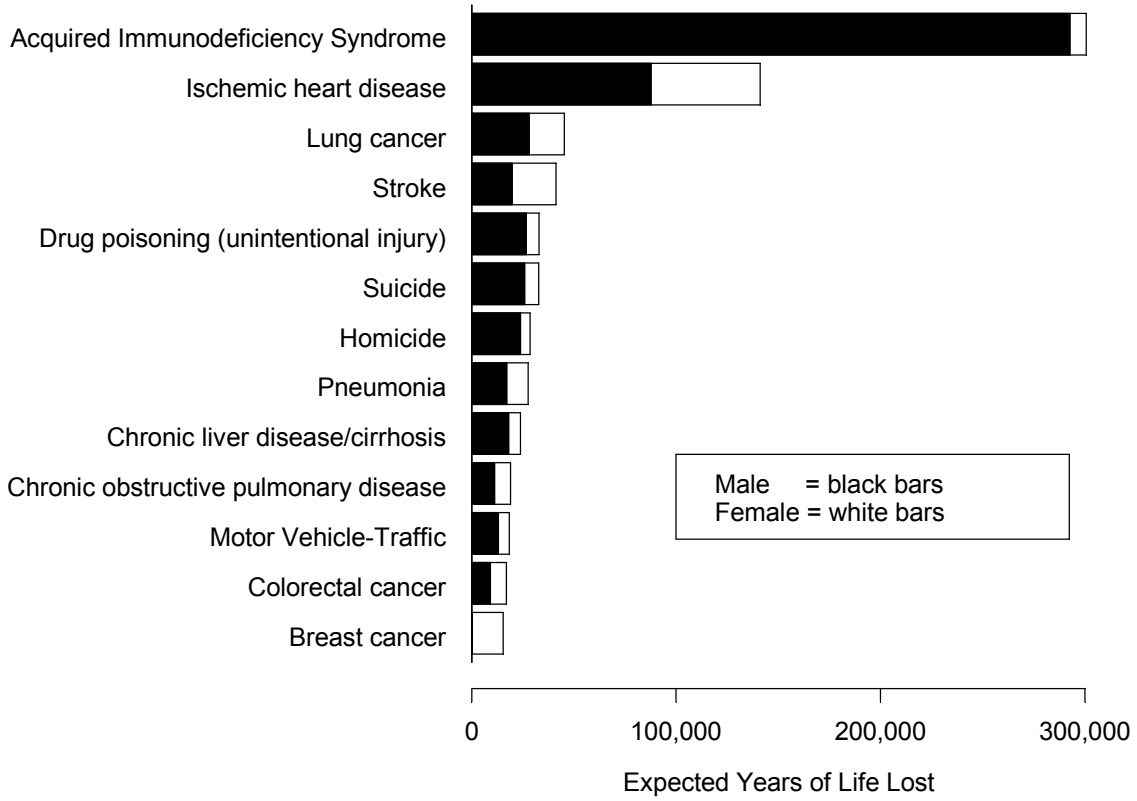

Figure 1: Standard Expected Years of Life Lost (SEYLL) from the 13 Leading Causes of Death, San Francisco 1990-1995

years of life lost; this was more than all the expected years of life lost for females from all causes (Figure 1; Table 16, p. 40). AIDS was the first leading cause of death among White, Latino, African-American, and Native American males and second among Filipino males (Table 45, p. 74). Female deaths from AIDS numbered 182 and represented 8 119 standard expected years of life lost (Table 16, p. 40). AIDS was the sixth leading cause of death for females, and the second leading cause for African-American and Latino females. In every San Francisco neighborhood, AIDS was the first or second leading cause of male deaths (Table 18, p. 42). The transmission category for the majority of AIDS cases in San Francisco has been men having sex with men, with the next largest category being injecting drug users.

- Ischemic heart disease, the leading cause of death in California and the United States, was the second leading cause of death overall (Figure 1): 11 010 San Francisco residents died from ischemic heart disease, representing 141 184 standard expected years of life lost (Table 1). Among males, ischemic heart disease was the second leading cause of death; it was the first or second leading cause in every neighborhood (Table 47, p. 83) and for each ethnic group except Latinos, among whom it ranked third (Table 45, p. 74). Among females, ischemic heart disease was the leading cause of death overall, for every ethnic group (Table 45), and for every neighborhood (Table 48, p. 84). Tobacco smoking, diet and physical inactivity are major determinants of

ischemic heart disease.

- Lung cancer was the third leading cause of death overall and for both males and females: 2 455 San Francisco residents died from lung cancer, representing 45 351 standard expected years of life lost (Table 1). Among males, lung cancer ranked second for Asians, fourth for Filipinos, and fifth for Whites and African-Americans; it was among the top five causes of death in 16 of 22 neighborhoods, and among the top ten causes in every neighborhood (Table 47, p. 83). Among females, lung cancer ranked second for Whites, third for Asian/Pacific Islanders, and fourth for African-Americans; it was among the top five causes of death in 20 neighborhoods, and among the top ten causes in every neighborhood (Table 48, p. 84). More than 85% of lung cancers are attributable to tobacco smoking.

- Stroke was the fourth leading cause of death overall (Figure 1), the second leading cause among females, and the seventh leading cause among males: 3 374 San Francisco residents died from stroke, representing 41 182 standard expected years of life lost (Table 1). Stroke was a leading cause among all ethnicities, ranking second or third among females, and among the top nine for males (Table 45, p. 74). Stroke was among the top six causes of death in 13 neighborhoods for males and in all 22 for females (Tables 47-48, pp. 83-84). Tobacco smoking, diet, and physical inactivity are important determinants of stroke.

- Drug poisoning was the fifth leading cause of death overall (Figure 1), the fourth leading cause among males, and the tenth leading cause among females: 735 San Francisco residents died from drug poisoning, representing 33 023 standard expected years of life lost (Table 1). Among African-American, Latino, Native American, and White males, drug poisoning was the third or fourth leading cause of death (Table 45, p. 74). Among African-American and White females, it was the sixth and ninth leading cause of death respectively. Drug poisoning was the third or fourth leading cause of male death in ZIP codes 94102 (Hayes Valley, Tenderloin, North of Market), 94103 (South of Market), 94107 (Potrero Hill), 94110 (Inner Mission, Bernal Heights), 94117 (Haight-Ashbury), and 94124 (Bayview-Hunters Point) (Table 47, p. 83). Drug poisoning was the second or third leading cause of female death in ZIP codes 94102, 94103, and 94107 (Table 48, p. 84). Almost all drug poisoning deaths were illicit drug overdoses.

- Suicide was the sixth leading cause of death overall (Figure 1), the fifth leading cause among males, and the ninth leading cause among females: 845 San Francisco residents died from suicide, representing 32 729 standard expected years of life lost (Table 1). Among males, suicide was the third leading cause of death among Whites, the sixth leading cause among Latinos, and the seventh leading cause among Asian/P.I. (Table 45, p. 74). Among females, suicide was the seventh leading cause of death among Whites and Asian/P.I. Suicide was the third leading cause of male death in ZIP codes 94108 (Chinatown), 94109 (Polk & Russian Hills), 94114 (Castro, Noe Valley), 94117 (Haight-Ashbury), and 94131 (Twin Peaks-Glen Park); it was among the top nine causes in all but one neighborhood (Table 83, p. 83). Suicide among females was ranked fifth or higher in ZIP code 94104/05/11 (Rincon, Telegraph Hill, Embarcadero), 94121 (Outer Richmond), and 94131 (Twin Peaks-Glen Park); it was among the 10 leading causes in 12 of 22 neighborhoods (Table 48, p. 84). Alcohol, firearms and illicit drugs are contributing factors for suicides.

- Homicide was the seventh leading cause of death overall (Figure 1), the sixth leading cause among males, and the 16th leading cause among females: 557 San Francisco residents died from homicide, representing 28 571 standard expected years of life lost (Table 1). Homicide was the second and third leading cause of death among Latino and African-American males, respectively (Table 45, p. 74). Among females, homicide was the seventh and ninth leading cause of death among African-Americans and Latinos, respectively. In Bayview-Hunters Point (ZIP code 94124), homicide was the leading cause of male death; it was the third or fourth leading cause of male death in ZIP codes 94107 (Potrero Hill), 94110 (Inner Mission, Bernal Heights), 94112 (Ingleside-Excelsior, Crocker-Amazon), 94115 (Western Addition, Japantown), and 94134 (Visitación Valley, Sunnydale) (Table 47, p. 83). Homicide was the fifth and sixth leading cause of female death in ZIP codes 94103 (South of Market) and 94124 (Bayview-Hunters

Point), respectively (Table 48, p. 84). Firearms, alcohol and illicit drugs are contributing factors for homicides.

Racial/ethnic disparity

There were marked racial disparities in age-adjusted all-cause and cause-specific mortality rates:

- All-cause mortality rate trends by ethnicity were evaluated for the nine-year period 1987 through 1995 (Figure 5, p. 26). African-American all-cause mortality rates were, by far, the highest for both sexes. Whites had the next worst mortality, with Latinos and Asians/others having the lowest all-cause mortality rates in San Francisco. The trends showed a moderate mortality rate decline over the period for African-American and White males and for females. In spite of the moderate improvements for each group over this nine-year period, the racial/ethnic disparity mortality rates did not appear to narrow.

- Life expectancy is another, more intuitive, measure of today's mortality burden from all causes. Calculated from mortality data from the study period 1990 through 1995 (Table 11, p. 30), African-Americans had the lowest life expectancy, with the disparity between ethnic groups greater among males than females. San Francisco African American male life expectancy at birth was 60.0 years, which was lower than the 1993 U.S. African American male life expectancy at birth of 64.6 years. This is the lowest life expectancy for African American males in 25 years (1970 U.S. African American male life expectancy was 60.0 years). In contrast, U.S. White males have not had a life expectancy this low since 1940 (62.1 years). San Francisco White males had the next lowest life expectancy of 64.9 years; this is much lower than the 1993 U.S. White male life expectancy of 73.1 years. The highest life expectancies were for Latino females (87.9 years) and Asian/other females (84.6 years).

- For the period 1990 through 1995, age-adjusted mortality rates were calculated for the 13 overall leading causes of death, which included the top ten causes for males and females (Figures 6-7 and Tables 9-10, pp. 28-29). For males and females, African American age-adjusted mortality rates were the highest for almost every leading cause of death. With the exception of AIDS and suicide (where White males had the highest rates), African-American males had the highest mortality rates among the four ethnic groups for 10 of the 12 leading causes of death in San Francisco. Their mortality rates were significantly higher than the other groups for six of the top eight causes (ischemic heart disease, lung cancer, stroke, drug poisoning, homicide, and pneumonia). African-American females had the highest mortality rates among females for 10 of the 13 leading causes of death, all except for suicide, chronic obstructive pulmonary disease, and motor vehicle-traffic deaths. Their mortality rates were significantly higher for five of the seven leading causes (AIDS, ischemic heart disease, stroke, drug poisoning, and homicide) and breast cancer.

Sex differences

- Mortality was much greater for males than females overall, within each ethnic group and for all the leading causes of death except stroke and breast cancer (Figures 1; 5, p. 26). Males had 2.7 times as many expected years of life lost as females, and, even without the enormous burden of premature mortality among males due to AIDS, males had 1.7 times as many expected years of life lost as females.

Age differences

From 1990 through 1995, leading causes of deaths varied significantly by age group (Tables 13-15, pp. 34-36):

- 362 infants less than one year died (average of 60 per year), representing 29 865 expected years of life lost. Sudden Infant Death Syndrome (SIDS) was the leading cause of infant death: 85 deaths and 7 012 expected years of life lost. SIDS was followed by congenital anomalies (70 deaths, 5 775

expected years of life lost), and birth asphyxia & trauma (43 deaths, 1 155 expected years of life lost). Four infants died from homicide and three died from AIDS.

- 72 infants/toddlers, ages one to four, died (average of 12 per year), representing 5 892 expected years of life lost. In this age group congenital anomalies was the leading cause of death (16 deaths, 1 309 expected years of life lost), followed by homicide (7 deaths, 573 expected years of life lost), motor vehicle-traffic accidents (5 deaths, 409 expected years of life lost), and fires (4 deaths, 327 expected years of life lost).

- 76 children, ages 5 to 14 years, died (average of 13 per year), representing 5 726 expected years of life lost. In this age group motor vehicle-traffic accidents were the leading cause of death (15 deaths, 1 130 expected years of life lost), followed by congenital anomalies (8 deaths, 594 expected years of life lost), homicide (7 deaths, 521 expected years of life lost), and leukemia (5 deaths, 385 expected years of life lost).

- 517 young adults, ages 15 to 24 years, died (average of 86 per year), representing 33 329 expected years of life lost. In this age group homicide was the leading cause of death (157 deaths, 10 180 expected years of life lost), followed by suicide (79 deaths, 5 067 expected years of life lost), motor vehicle-traffic accidents (78 deaths, 5 024 expected years of life lost), AIDS (30 deaths, 1 892 expected years of life lost), and drug poisoning (22 deaths, 1 398 expected years of life lost).

- 8 110 adults, ages 25 to 44 years, died (average of 1 352 per year), representing 394 595 expected years of life lost. In this age group AIDS was the leading cause of death (4 640 deaths, 224 627 expected years of life lost), followed by drug poisoning (506 deaths, 25 035 expected years of life lost), suicide (350 deaths, 17 534 expected years of life lost), homicide (264 deaths, 13 821 expected years of life lost), and chronic liver disease (189 deaths, 8 952 expected years of life lost).

- 8 845 adults, ages 45 to 64 years, died (average of 1 474 per year), representing 279 156 expected years of life lost. In this age group AIDS was the leading cause of death (2 031 deaths, 71 666 expected years of life lost), followed by chronic conditions for which mortality increases greatly with aging: ischemic heart disease, lung cancer, chronic liver disease, and stroke.

- 30 339 older adults, aged 65 years or older, died (average of 5 057 per year), representing 319 646 expected years of life lost. The leading cause of death was ischemic heart disease, followed by stroke, lung cancer, pneumonia, and COPD.

Homicide was between the first and seventh leading cause of death in each age group from birth through 44 years. AIDS was between the first and eighth leading cause of death in every age group from birth through 64 years. Motor vehicle-traffic accidents were between the first and sixth leading cause of death in every age group from 1 through 44 years.

Breast cancer was between the second and sixth leading cause of death for females in all age groups from 25 years or older (Table 15, p. 36). In contrast, prostate cancer, an exclusively male cancer, was as high as the sixth leading cause of death only for males 65 years or older (Table 14, p. 35).

Linking causes of deaths to underlying determinants

Identification and ranking of the leading causes of premature deaths is insufficient data for prevention planning; true underlying causes or determinants must be identified and measured. Based on this approach, more than half of the deaths in the United States in 1990 were attributed to nine well-known determinants (*also called contributing factors or causal risk factors*)[2]: tobacco use, diet and physical inactivity, alcohol consumption, infectious agents, environmental toxins, firearms, unsafe sex, motor vehicles, and illicit drugs. People to whom a given causal risk factor applies (who may be said to be *exposed* to that causal risk factor) have an increased risk of disease or death. To quantitatively link these nine determinants to the leading causes of premature death in San Francisco, we created *prevention attribution matrices* based on an extensive review of the biomedical and public health

[2] McGinnis JM, Foege WH. Actual Causes of Death in the United States. *JAMA* 1993; 270(18):2207

Table 1: Leading Causes of Death and Prevention Attribution Matrix, All Residents 1990-1995

Specific Cause of Death	SEYLL	%	Count	%	TOBACCO	DIET-EXERC	ALCOHOL	INFECTIOUS	ENVIRONMEN	FIREARMS	SEXUAL EXP	MOTOR VEHI	DRUGS
1. HIV infection/AIDS	300 755	28.2	6 832	14.1			?	●●			●●		●
2. Ischemic heart disease	141 184	13.2	11 010	22.7	●	●	∗						
3. Lung cancer	45 351	4.2	2 455	5.1	●●	?			○				
4. Stroke	41 182	3.9	3 374	7.0	●	●	○∗						○
5. Drug poisoning (UI)	33 023	3.1	735	1.5			●						●●
6. Suicide	32 729	3.1	845	1.7			●			●			○
7. Homicide	28 571	2.7	557	1.2			●			●●			●
8. Pneumonia	27 634	2.6	2 303	4.8	●		○	●●	○				
9. Chronic liver disease	23 871	2.2	771	1.6			●●	●					○
10. COPD	18 894	1.8	1 391	2.9	●●				○				
11. Motor Vehicle-Traffic	18 444	1.7	438	0.9			●					●●	○
12. Colorectal cancer	16 967	1.6	1 058	2.2	○	●	○						
13. Breast cancer	15 326	1.4	727	1.5	?	○	○						
14. Alcohol use (psychiatric)	13 106	1.2	384	0.8			●●						
15. Lymphomas/m. myeloma	12 644	1.2	595	1.2				○					
16. Inflam/Infect/cardiomyop.	11 756	1.1	584	1.2		○	○	○					○
17. Diabetes mellitus	10 910	1.0	633	1.3		●●							
18. Congenital anomalies	9 895	0.9	155	0.3				○	○				
19. Liver cancer	8 468	0.8	410	0.8			●	●					
20. Falls (unintentional)	7 445	0.7	323	0.7		○	●						○
1-20. TOTAL	818 155	76.6	35 580	73.5									

Underlying determinant: Tobacco consumption, Diet and/or Exercise, Alcohol consumption, Infectious agent, Environmental toxin, Firearms, Sexual exposure , Motor vehicle-traffic, Drugs (illicit).

●● Attributable fraction greater than 40%

● Attributable fraction 10% to 40%

○ Attributable fraction 2% to 10%

∗ Protective effect of alcohol consumption

? More than two studies but no consensus

literature (Table 1). Many of these causal risk factors contribute to more than one cause of death, and many causes of death have more than one of these determining factors contributing to them.

The more preventable deaths are attributable to a particular causal risk factor, the more important it is to reduce exposure to that risk factor among the population. For important causal risk factors, we want to know how much of the burden of premature mortality could be prevented if this causal risk factor were somehow eliminated from the population, which is called the *population attributable fraction* of that determinant. To compute the population attributable fraction for a determinant, we must first calculate how much of the population is exposed to that determinant, and then what increased risk of death results from exposure to that determinant. For example, if lung cancer death rates are ten times higher in tobacco smokers compared to non-smokers (relative risk = 10) and 40%

of the population smokes, then the proportion of lung cancer deaths attributable to smoking is about 80%, using a widely-employed calculation method[3].

The results, showing the approximate share of mortality in San Francisco attributable to the nine well-known causal risk factors listed at the beginning of this section, are shown for all residents (Table 1) and by sex (Tables 6-7, pp. 24-25). For some of the cause of death/determinant intersections shown in the prevention attribution matrices (e.g., AIDS & unsafe sex, tobacco & lung cancer, tobacco & heart disease, or alcohol & homicide) fairly precise estimates of attribution can be made. For others, we use the published literature to estimate ranges of attribution: over 40%, 10% to 40%, 2% to 10%.

In San Francisco, for the six-year period 1990 through 1995, the following results were apparent from this analysis:

- Unsafe sexual practices were among the leading contributing factors to preventable mortality, due to the enormous impact of AIDS deaths on premature mortality.
- Tobacco and alcohol were major contributors to premature mortality; they were responsible for about one-fifth of all deaths and all expected years of life lost (Table 19, p. 43; and Table 28, p. 53).
- Tobacco was associated with five of the ten leading causes of premature death: ischemic heart disease, lung cancer, stroke, pneumonia, and chronic obstructive pulmonary disease (Table 1).
- Alcohol was associated with six of the ten leading causes of premature death: stroke, drug poisoning, suicide, homicide pneumonia, and chronic liver disease; it is also associated with 13 of the leading 20 causes (Table 1).
- Illicit drug use was associated with six of the ten leading causes of premature death; it was a major contributor directly through drug poisoning and indirectly by contributing to other causes including AIDS, stroke, suicide, homicide, and chronic liver disease (Table 1). Drug poisoning itself was the fourth leading cause of premature mortality among males, tenth among females and fifth overall (Tables 5-7, pp. 23-25).
- Diet and physical inactivity were important contributors to premature mortality, through their role in causing a share of fatal heart disease, stroke, and colorectal and breast cancer. Diet and inactivity are associated with 2 of the 10 leading causes of premature mortality, and 7 of the top 20 (Table 1).

Comments

The mission of the San Francisco Department of Public Health is to protect and promote the health of all San Franciscans. This report is a comprehensive, systematic, and population-based approach to the analysis of existing mortality data; it provides essential information to inform, guide, and monitor actions undertaken to improve population health. The primary measure, standard expected years of life lost, gives greater weight to deaths that occur at younger ages and allows ranking by objective criteria; it is, therefore, our preferred indicator of preventable, premature deaths. We conducted analyses not only by sex, race/ethnicity, and age, but also by neighborhood. This report allows different demographic groups, neighborhoods, and the Department of Public Health to determine what are the leading specific causes of preventable, premature deaths in diverse communities, and should help to guide community health priority setting and targeted interventions. These analyses will be repeated on a periodic basis in order to monitor changes in the mortality burden from disease and injury in all San Francisco communities.

Knowledge of the leading causes of premature deaths is, by itself, not sufficient to prevent the occurrence of disease and injury. Nevertheless, if we are to design cost-effective strategies to prevent and control disease and injury, we must first measure and rank the leading *causes* of disease and injury, identify the underlying *determinants* of these causes of disease and injury (Table 1), calculate the *contribution* of these determinants to the leading causes of death, and finally assess the *distribution*

[3]Haddix AC, Teutsch SM, Shaffer PA, Duñet DO. *Prevention Effectiveness: A Guide to Decision Analysis and Economic Evaluation.* Oxford University Press 1996

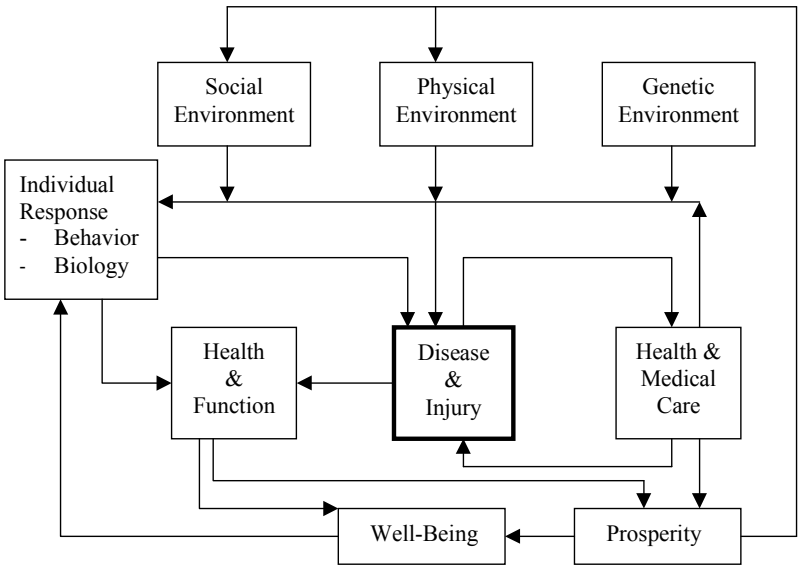

Figure 2: Multiple determinants of health model. (Adapted from Evans, R.G., et al. [eds.] *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations* [New York: Aldine de Gruyter] Copyright © 1994, Walter de Gruyter Inc., New York)

of these determinants in our population. With these facts, the health model shown in Figure 2 can be used to guide, plan, and monitor improvements in population health, making the best use of this disease and injury mortality data. Disease and injury are shown in the middle of the diagram, along with health and medical care; well-being and prosperity are shown at the bottom, and environmental influences at the top. The more we can understand how the experience of our residents in the dimensions shown in the middle and bottom of the model are influenced by the factors at the middle and top of the model, the better we will be able to develop policies that protect, preserve, and promote population health and well-being.

Thus, the model in Figure 2 illustrates the fact that exposures to many determinants of disease and injury are influenced, in particular, by the social environment; in many cases, changes in social conditions may have many beneficial effects on community health. For example, laws to reduce exposures to second-hand tobacco smoke, to limit cigarette advertising, or to permit the provision of clean needles and syringes to injection drug users, not only saves lives, they improve health and quality of life. Further, social conditions affect individuals' access to educational, social, and health resources. Increasing access to such resources could provide substantial benefits to the health of many individuals, especially to those who have the least access due to socioeconomic disadvantage.

Indeed, socioeconomic conditions, especially poverty, adversely influence many health outcomes, including almost all of the leading causes of death. Other aspects of the social environment also have wide-ranging influences on many health outcomes, such as the availability of social support. Furthermore, individuals who experience substantial stress in their social environment are also at increased risk of poor health. Improving these social conditions, especially for the most vulnerable segment of the population, could be expected to provide the most widespread improvement in health and well-being. Thus, efforts to improve community health should not to be limited to clinical or behavioral interventions, but should also aim for long-term change in the social and physical environments in which we live. We hope that the results presented in this report will help diverse communities, separately and together, to set priorities and advocate for changes that improve their health.

This report links causes of death responsible for the greatest burden of premature mortality in San Francisco to nine well-established determinants that contribute to mortality from multiple specific causes of death. The prevention attribution matrix (Table 1) is our evidenced-based attempt to make these critical linkages, to guide new prevention efforts, and to target monitoring of expected outcomes.

The prevention attribution matrix for the City's overall leading causes of premature mortality can indicate the extent to which prevention efforts directed at reducing exposure to the determinants covered in this report could affect the burden of mortality from the leading causes for the City as a whole or for communities where prevention might be targeted. Primary prevention strategies—aimed at preventing the occurrence of disease or injury in the first place—that accomplish long-lasting change in the distribution of risk factors (e.g., smoking prevalence) can continue to improve population health generations into the future. The analysis provided by this report helps provide a basis to effectively protect, preserve, and promote community health—to invest in targeted strategies that improve population health today and into the future.

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1 INTRODUCTION

The San Francisco Department of Public Health's Division of Population Health and Prevention conducts the essential function of assessing the general health of San Francisco residents. Our primary goal is to profile the health and health needs of the whole population and its communities; our first objective has been the analysis of population-based health data. Health is not just the absence of disease; however, its measurement must include the obvious impacts of disease and injury, and the distribution of the underlying factors which result in disease and injury. The most severe health impact is, of course, death, and this first comprehensive assessment covers deaths. Our specific aim was to measure and prioritize the overall and cause-specific burden of disease and injury conditions by their most severe health impacts, namely premature deaths as measured by years of life lost. Studies on the burden and distribution of non-fatal outcomes that result in temporary or permanent disabilities and that detract from the quality of life are the subjects of future reports.

In addition to reporting on the burden of mortality by cause for various population groups, we also seek to understand mortality patterns in terms of the known contributing factors or determinants that lead to premature death. Uncovering the contributions of these determinants to the burden of mortality can help guide the planning of primary prevention to effectively reduce that burden. We focus on important health outcomes whose distribution we want to understand in order to work effectively with communities to reduce their burden of injury, illness and death. Determinants in the social and physical environments influence individual and group behaviors and responses which, through a complex set of pathways, result in disease and injury and shape a population's health and well-being. A useful health model that summarizes the influence of multiple determinants on multiple outcomes is depicted in Figure 3, p. 12. This and subsequent population health assessment reports are guided by the following understanding: the more we can understand how the factors at the top and middle of the model influence the experience of our residents in the dimensions shown in the middle and bottom of the model, the better we will be able to develop policies that protect, preserve, and promote population health and well-being.

The most severe impact on health and function is a premature death. In this report we analyzed of the mortality burden of disease and injury by measuring the expected years of life lost from specific causes of death. Consistent with our health model, well-established determinants or contributing factors for the leading causes of death were reviewed to guide the planning of primary prevention. Data on non-fatal outcomes resulting in temporary or permanent disabilities that can be used to construct measures of morbidity will be analyzed later.

Department of Public Health population health assessments are intended to be used not only by the Department, but also by community organizations, advocates, and residents to make more informed decisions about the health needs and priorities of San Francisco's diverse populations. This project thus involves not only the process of developing and interpreting a whole-population picture of health status and needs, but also of incorporating such health data throughout the Department in planning and decision-making. This report specifically measures the mortality burden of disease and injury for San Francisco residents for the period 1990 through 1995 and has the following purposes:

1. To objectively, systematically, and comprehensively assess the mortality component of the overall burden of disease and injury for San Francisco residents.

2. To utilize measures that allow ranking of population disease and injury indicators for the purposes of developing public health priorities.

3. To apply what is known about factors contributing to causes of death to S.F. mortality data in order to measure the extent to which premature deaths are caused by known preventable factors.

4. To inform Division of Population Health and Prevention policy and to guide health protection, health promotion, and disease and injury prevention and control efforts.

The mortality analyses in this report are modeled, in part, after the Global Burden of Disease and Injury Series published by the World Health Organization (WHO) and the Harvard School of Public Health [38]. The primary objectives of that study were (1) ". . . to facilitate the inclusion of non-fatal health outcomes in debates on international health policy," (2) ". . . to decouple epidemiologic

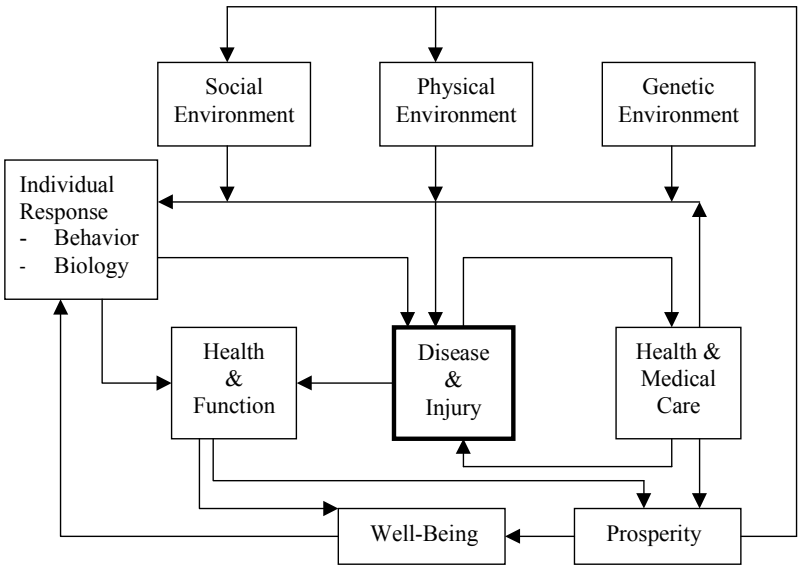

Figure 3: Multiple determinants of health model. (Adapted from Evans, R.G., et al. [eds.] *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations* [New York: Aldine de Gruyter] Copyright © 1994, Walter de Gruyter Inc., New York)

assessment from advocacy so that estimates of the mortality or disability from a condition are developed as objectively as possible," and (3) ". . . to quantify the burden of disease using a measure that could also be used for cost-effectiveness analysis." Based on these objectives, these investigators developed Disability Adjusted Life Years (DALY) as their primary measure. DALY is calculated by summing Years Lived with Disability (YLD) and Standard Expected Years of Life Lost (SEYLL). YLD measures the population burden of non-fatal health outcomes and is not the subject of this report. The measure of the population burden of fatal outcomes is SEYLL, and it is the primary measure used in this report.

This report is a comprehensive, systematic and population-based approach to the analysis of San Francisco mortality data. The primary measure, SEYLL, gives greater weight to deaths that occur at younger ages and is therefore our preferred indicator of preventable, premature deaths. Our cause of death classification system was modified from the WHO Global Burden of Disease (GBD) Study and made particularly relevant to San Francisco (Table 2, p. 15). Analyses were conducted not only by sex, race/ethnicity, and age, but also by neighborhood. This report summarizes for the San Francisco Department of Public Health and community residents the leading specific causes of premature, preventable deaths in their communities, and should help to guide health priority setting and targeted interventions. These analyses will be repeated on a periodic basis for the purposes of monitoring changes in the mortality burden of disease and injury in all San Francisco communities.

2 METHODS

2.1 Data source

The Public Health Information System (PHIS) summary death certificate data for the years 1990 through 1995 were obtained from the Data Retrieval and Analysis Section of the California Department of Health Services. These summary data included all certified deaths of San Francisco residents regardless of where they died, as well as people dying in San Francisco but with no known residence. The data file included variables for sex, race/ethnicity, age, age group, code for underlying cause of death, and ZIP code of residence. Codes for underlying cause of death were from the International Classification of Diseases, 9th Revision (ICD-9). The race/ethnicity variable had 7 categories available across all 6 years: White, African American, Latino, Asian/Pacific Islander, Filipino, Native American, and Other.

2.2 Mortality measures

For the period 1990 through 1995, the following were determined for all San Francisco residents, for San Francisco residents stratified by race/ethnicity, and for San Francisco residents stratified by ZIP code: (1) Mortality count by total, by sex, and by sex and age, and (2) Standard Expected Years of Life Lost (SEYLL) by total, by sex, and by sex and age. We used SEYLL as our base measure of mortality, because it incorporates a weighting for degree of prematurity of deaths, and because it can be calculated for neighborhoods in the absence of reliable, timely population information needed to compute rates. All rankings by specific causes of death presented in this report are based on SEYLL .

Standard expected years of life lost is defined as follows:

$$SEYLL = \sum_{x=0}^{l} d_x e_x^*$$

where d_x is the number of deaths at age x and e_x^* is the expectation of life at each age x based on some ideal standard. For this report, the standard used for male and female deaths was based on a model life table from Coale and Demeny West Level 26 which has a life expectancy at birth for females of 82.5 years. We chose this life table standard as achievable by San Francisco residents and because it was used by the Global Burden of Disease study.

For the period 1990 through 1995 and for the consecutive the three-year periods 1987 through 1989, 1990 through 1992, and 1993 through 1995, age-adjusted mortality rates were calculated using the 1940 U.S. standard million population [3]. Standard methods were used to calculate confidence intervals [6]. Population estimates and projections used in the calculation of mortality rates were obtained from the California Department of Finance Demographic Research Unit. These were available for four race/ethnic categories (White, African American, Latino, and Asian/other), so rates by ethnicity were calculated for these four groupings. Life expectancies were calculated based on standard methods [14, 54]. All analyses, including graphics, were conducted in *S-Plus* [34].

2.3 Cause of death classification

The San Francisco Department of Public Health Burden of Disease and Injury Study (SFDPH BDIS) cause of death classification is based on the WHO GBD Study with several modifications to make it more relevant to San Francisco (Table 2). Whenever possible, ICD-9 codes were modified to make the categories comparable to the Healthy People 2000 and/or National Center for Health Statistics cause of death classification. The SFDPH BDIS cause of death classification is broken down into four major aggregate levels (Level 1 category). Each sublevel (Levels 2, 3, 4) is a subset of the previous level and provides more specific, disaggregated causes of death. Level 1 categories are the following:

I. Communicable diseases
II. Maternal-Perinatal-Nutritional conditions
III. Noncommunicable diseases
IV. Injuries

However, for more specific causes of death one could then look a Level 2, 3, or 4 category cause of death. For example, for injuries:

IV.	Injuries	[Level 1 category]
	A. Unintentional injuries	[Level 2 category - subset of IV]
	1. Motor vehicle-traffic	[Level 3 category - subset of IV.A]
	a. Occupant	[Level 4 category - subset of IV.A.1]
	b. Motorcyclist	
	c. Pedalcyclist	
	d. Pedestrian	
	2. Poisonings	
	a. Drug poisonings	
	3. Falls	
	4. Drowning	

For each Level, number of deaths, deaths rates, and standard expected years of life lost were calculated. However, all leading causes of death listed in this report were based on specific rather than more general or aggregated causes. Specific causes are more useful for determining etiology and planning prevention actions. Mutually exclusive, but not exhaustive, categories of specific causes are shown with asterisks in Table 2.

2.4 Attribution

More than half of the deaths in the United States in 1990 were attributed to nine well-known determinants (or *causal risk factors*) [35]: tobacco use, diet and physical inactivity, alcohol consumption, infectious agents, environmental toxins, firearms, unsafe sex, motor vehicles, and illicit drugs. Individuals to whom a given causal risk factor applies (who may be said to be *exposed* to that causal risk factor) have an increased risk of disease or death. Moreover, many of these causal risk factors contribute to more than one cause of death. To quantitatively link these nine determinants to the leading causes of premature death in San Francisco, we created *prevention attribution matrices* based on an extensive review of the biomedical and public health literature (Tables 5-7, pp. 23-25).

The more preventable deaths attributable to a particular causal risk factor, the more important it is to reduce exposure to that risk factor among the population. For the nine important causal risk factors given in the previous paragraph, we wanted to know how much of the burden of premature mortality could be prevented if this causal risk factor were somehow eliminated from the population; specifically, we estimated the *population attributable fraction* of each determinant. To compute the population attributable fraction for each determinant, we must first calculate how much of the population is exposed to that determinant, and then what increased risk of death results from exposure to that determinant. For example, if lung cancer death rates are ten times higher in tobacco smokers compared to non-smokers (relative risk = 10) and 40% of the population smokes, then the proportion of lung cancer deaths attributable to smoking is about 80%, using a widely-employed calculation method [22].

Because the leading 20 causes of death differ by gender, ethnic group, and neighborhood, the matrix upon which Tables 5-7 are based encompasses the 37 leading causes of death. The resulting 37 by 9 matrix contains 333 causes of death/determinant pairs, whose potential relationships are being evaluated in steps. First, textbooks, expert opinion and MEDLINE searches were used to establish whether there is a known association between the leading causes of death and each of these determinants. Next, we evaluated, even if only roughly and approximately, the relative importance of the risk factors to each cause of death. Finally, in an ongoing process, we are conducting MEDLINE searches to find data on relative risk and prevalence from comparable populations to estimate the fraction (proportion) of deaths attributable to the contributing factors. For tobacco and alcohol, we used attributable mortality fractions from California and U.S. reports and applied them locally to estimate tobacco and alcohol attributable mortality in San Francisco (Tables 19-28, pp. 43-53).

The current depiction of levels of attribution should be considered a work in progress. We want to apply as much as possible of what is known about the factors contributing to the burden of disease and injury to local data – even if we cannot be as exact as we would like to be in establishing quantitatively

Table 2: SFDPH Burden of Disease and Injury Classification System

Disease Classification	ICD-9 Codes
I. Communicable diseases	001-139, 320-322, 381-382, 460-466, 480-487, 614-616
A. Infectious & parasitic	001-139, 320-322, 614-616
1. Tuberculosis*	010-018, 137
2. Sexually transmitted (& PID)*	090-099, 614-616
3. HIV infection/AIDS*	042-044
4. Diarrheal diseases*	001, 002, 004, 006-009
5. Child-cluster diseases*	032, 033, 037, 045, 055, 056, 138, 771.3
6. Bacterial meningitis & meningococcemia*	036, 320-322
7. Hepatitis B & C*	070.2-070.9
8. Tropical diseases*	030, 060-066, 076, 084, 085, 086, 120-129
B. Respiratory infections	381-382, 460-466, 480-487
1. Lower respiratory (Pneumonia)*	466, 480-487
2. Upper respiratory*	630-676
II. Maternal-Perinatal-Nutritional conditions	243, 260-269, 280-281, 630-676, 760-779, 798.0
A. Maternal conditions*	630-676
B. Perinatal conditions	760-779
1. Slow growth/gestation/Low birth wt*	764-765
2. Birth asphyxia & trauma*	767-770
C. Sudden infant death syndrome*	798.0
D. Nutrition deficiencies*	243, 260-269, 280-281
III. Noncommunicable diseases	140-242, 244-259, 270-279, 282-319, 323-380, 383-459, 467-479, 488-613, 617-629, 680-759,
A. Malignant neoplasms	140-208
1. Mouth/oropharynx cancers*	140-149
2. Esophageal cancer*	150
3. Stomach cancer*	151
4. Colorectal cancer*	153.0-154.3, 154.8, 159.0
5. Liver cancer*	155
6. Pancreas cancer*	157
7. Lung cancer*	162.2-162.9
8. Melanoma/skin cancers*	172-173
9. Breast cancer*	174, 175
10. Cervical cancer*	180
11. Uterine cancer*	179, 182
12. Ovarian cancer*	183
13. Prostate cancer*	185
14. Bladder cancer*	188
15. Brain cancer*	191
16. Lymphomas/multiple myeloma*	200-203
17. Leukemia*	204-208
B. Other neoplasms	210-239
C. Diabetes mellitus*	250
D. Endo/Metab/Imm/Hgb disorders	240-242, 244-246, 251-259, 270-279, 282-289
E. Psychiatric conditions	290-319
1. Schizophrenia/Bipolar disorder*	295, 296
2. Alcohol use (psychiatric diagnosis)*	291, 303, 305.0
3. Drug use (psychiatric diagnosis)*	292, 304, 305.2-305.9

*Mutually exclusive specific causes used for all rankings in this report.

Table 2 (continued). SFDPH Burden of Disease and Injury Classification System

Disease Classification	ICD-9 Codes
III. Noncommunicable diseases (continued)	
F. Neurologic conditions	323-359
1. Dementia/degenerative CNS*	330, 331, 290
a. Alzheimer's disease	331.0
2. Parkinson's disease*	332
3. Multiple sclerosis*	340
G. Cardiovascular diseases	390-459
1. Rheumatic heart disease*	390-398
2. Ischemic heart disease*	410-414, 402, 429.2
3. Cerebrovascular (Stroke)*	430-438
4. Inflammatory/infectious/cardiomyopathy*	420, 421, 422, 425
5. Hypertension*	401, 403
H. Respiratory diseases	470-478, 490-519
1. Chronic obstructive pulmonary disease (COPD)*	490-492, 495-496
2. Asthma*	493
I. Digestive diseases	530-579
1. Peptic ulcer diseases*	531-533
2. Chronic liver & cirrhosis*	571
3. Appendicitis*	540-543
J. Genito-urinary diseases	580-611, 617-629
1. Nephritis & nephrosis*	580-589
2. Benign prostatic hypertrophy*	600
K. Skin diseases	680-709
L. Musculoskel./connective tissue	710-739
1. Rheumatoid arthritis*	714
2. Osteoarthritis*	715
M. Congenital anomalies*	740-759
1. Anencephaly	740
2. Down syndrome	758.0
3. Congenital heart disease	745-747
IV. Injuries	800-999
A. Unintentional injuries (UI)	800-949
1. Motor Vehicle -Traffic (MVT)*	810-819, 929.0
a. Occupant, MVT	810-819 (.0, .1)
b. Motorcyclist, MVT	810-819 (.2, .3)
c. Pedalcyclist, MVT	810-819 (.6)
d. Pedestrian, MVT	810-819 (.7)
2. Poisonings, UI	850-869
a. Drug poisoning, UI*	850-858
3. Falls, UI*	880-886, 888
4. Fires, UI*	890-899
5. Drownings, UI*	830, 832, 910
6. Firearm, UI*	922
B. Intentional injuries	950-979, 990-999
1. Suicide*	950-959
a. Firearm, suicide	955.0-.4
2. Homicide*	960-969
a. Firearm, homicide	965.0-.4
b. Child battering	967
3. Legal intervention*	970-978
4. War*	990-999
C. Intention undetermined injury (IU)	980-989
1. Firearm, IU	985.0-985.4

*Mutually exclusive specific causes used for all rankings in this report.

the burden of mortality attributable to major contributing factors – so that this information can be drawn on for public health planning. Although our current version of the cause-contributing factor attribution table may wind up being modified over time, it also conveys much information that will be useful to planners and community groups now.

To depict the approximate levels of population attributable risk, the following symbols were applied:

••	Attributable fraction greater than 40%
•	Attributable fraction 10 to 40%
∘	Attributable fraction 2 to 10%
∗	Protective effect of alcohol consumption

We again note that these are our best current estimates based on review of the literature [1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 18, 20, 19, 21, 23, 24, 26, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57] but often made in the absence of the most appropriate information on strength of risk and actual distribution of determinants in populations like those comprising San Francisco[4]. We expect quantitative classification of some attribution table cells may change with further information and analysis, and invite interested readers to contribute their thoughts and information to the ongoing process of refining our attributable fraction estimates.

[4] Alcohol's potentially beneficial effects must be weighed against its potentially negative consequences, but this qualification should not be regarded as a recommendation to drink for health. Avoidance of tobacco and avoidance of physical inactivity are safer and more effective means for maintaining cardiovascular health.

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3 RESULTS

The results are presented in the following sections:

3.1. Leading causes of death

3.2. Burden of AIDS deaths

3.3. Burden of tobacco consumption

3.4. Burden of alcohol and illicit drug consumption

3.5. Burden of deaths related to diet and physical inactivity

3.6. Ethnicity profiles

3.7. Neighborhood profiles

Section 3.1 summarizes the leading specific causes of death for San Francisco residents overall, by ethnicity, by sex, and by age category. This section also examines racial disparities with special focus on African Americans. Because of San Francisco's unprecedented and enormous burden of AIDS deaths, Section 3.2 is the only section dedicated to a single etiology - AIDS deaths from infection with the Human Immunodeficiency Virus (HIV). Sections 3.3, 3.4, and 3.5, summarize the group of causes of deaths in which a significant proportion of deaths can be attributed to tobacco consumption; alcohol or illicit drug consumption; or diet and physical inactivity, respectively. Section 3.6 summarizes the leading causes of death for seven race/ethnic groups: African American, Asian/Pacific Islander, Filipino, Latino, Native American, and White. Finally, Section 3.7 summarizes the leading causes of death for San Francisco neighborhoods as defined by United States Postal ZIP codes.

3.1 Leading causes of death

3.1.1 Overview

The number and percent of deaths by sex and age group for the four major cause of death categories are shown in Table 3. There were a total of 48 424 deaths during the six-year period 1990 through 1995, an average of 8 070 deaths per year. Of these, 28 613, or 59.0%, occurred among males. Overall, 34 704 deaths (71.7%) were due to non-communicable diseases, distributed almost equally between males (50.5%) and females (49.5%). In contrast, 9 873 deaths (20.4%) were due to communicable diseases; however, of these, the 8 284 male deaths (29% of all male deaths) were more than five times the 1 589 female deaths (8.0% of all female deaths) . Likewise, of the 3 445 (7.1%) injury deaths, the 2 563 male deaths (9% of all male deaths) were almost three times the 882 female deaths (4.5% of all female deaths). The proportion of deaths from communicable diseases peaks in the 25-44 year old age group where 67% of 7 172 male deaths and 16.3% of 938 female deaths were from a communicable disease (mostly AIDS). Similarly, the proportion of deaths due to injury peaked in the 15 to 24 year old age group: 78.4% of 416 male deaths and 60.4% of 101 female deaths were caused by an injury. Deaths due to maternal, perinatal, or nutritional causes were 0.6% of all deaths. Finally, nearly all deaths (99.8%) were categorized into a cause-of-death evaluated for this study.

Table 3: Distribution of All Deaths by Major Cause, Sex, and Age

	All ages[a]	Age <1	Age 1-4	Age 5-14	Age 15-24	Age 25-44	Age 45-64	Age 65+
All Residents								
(*number*)								
All causes	48 424	362	72	76	517	8 110	8 845	30 339
Communicable	9 873	21	9	6	46	4 956	2 353	2 398
Maternal-Perinatal-Nutritional	282	224	2	0	1	11	3	40
Noncommunicable	34 704	98	37	37	74	1584	5 656	27 176
Injuries	3 445	16	22	33	387	1504	746	707
Not categorized	120	3	2	0	9	55	27	18
(*percent*)[b]								
Communicable	20.4	5.80	12.5	7.89	8.90	61.1	26.8	7.90
Maternal-Perinatal-Nutritional	0.58	61.9	2.78	0.00	0.19	0.14	0.03	0.13
Noncommunicable	71.7	27.1	51.4	48.7	14.3	19.5	64.4	89.6
Injuries	7.11	4.42	30.1	43.4	74.9	18.5	8.49	2.33
Not categorized	0.25	0.83	2.78	0.00	1.74	0.68	0.31	0.06
Male								
(*number*)								
All causes	28 613	209	42	49	416	7 172	6 612	14 029
Communicable	8 284	11	6	3	39	4 803	2 228	1 111
Maternal-Perinatal-Nutritional	150	134	0	0	0	2	3	11
Noncommunicable	17 532	55	19	21	47	1 104	3 751	12 505
Injuries	2 563	8	16	25	326	1 221	551	391
Not categorized	84	1	1	0	4	42	19	11
(*percent*)								
Communicable	29.0	5.26	14.3	6.12	9.38	67.0	34.0	7.92
Maternal-Perinatal-Nutritional	0.52	64.1	0.00	0.00	0.00	0.03	0.05	0.08
Noncommunicable	61.3	26.3	45.2	42.9	11.3	15.4	57.2	89.1
Injuries	8.96	3.83	38.1	51.0	78.4	17.0	8.41	2.79
Not categorized	0.29	0.48	2.38	0.00	0.96	0.59	0.29	0.08
Female								
(*number*)								
All causes	19 811	153	30	27	101	938	2 233	16 310
Communicable	1 589	10	3	3	7	153	125	1 287
Maternal-Perinatal-Nutritional	132	90	2	0	1	9	0	29
Noncommunicable	17 172	43	18	16	27	480	1 905	14 671
Injuries	882	8	6	8	61	283	195	316
Not categorized	36	2	1	0	5	13	8	7
(*percent*)								
Communicable	8.02	6.54	10.0	11.1	6.93	16.3	5.60	7.89
Maternal-Perinatal-Nutritional	0.67	58.8	6.67	0.00	0.99	0.96	0.00	0.18
Noncommunicable	86.7	28.1	60.0	59.3	26.7	51.2	85.3	90.0
Injuries	4.45	5.23	20.0	29.6	60.4	30.2	8.73	1.94
Not categorized	0.18	1.31	3.33	0.00	4.95	1.39	0.36	0.04

[a] Includes subjects with age missing

[b] Column percents

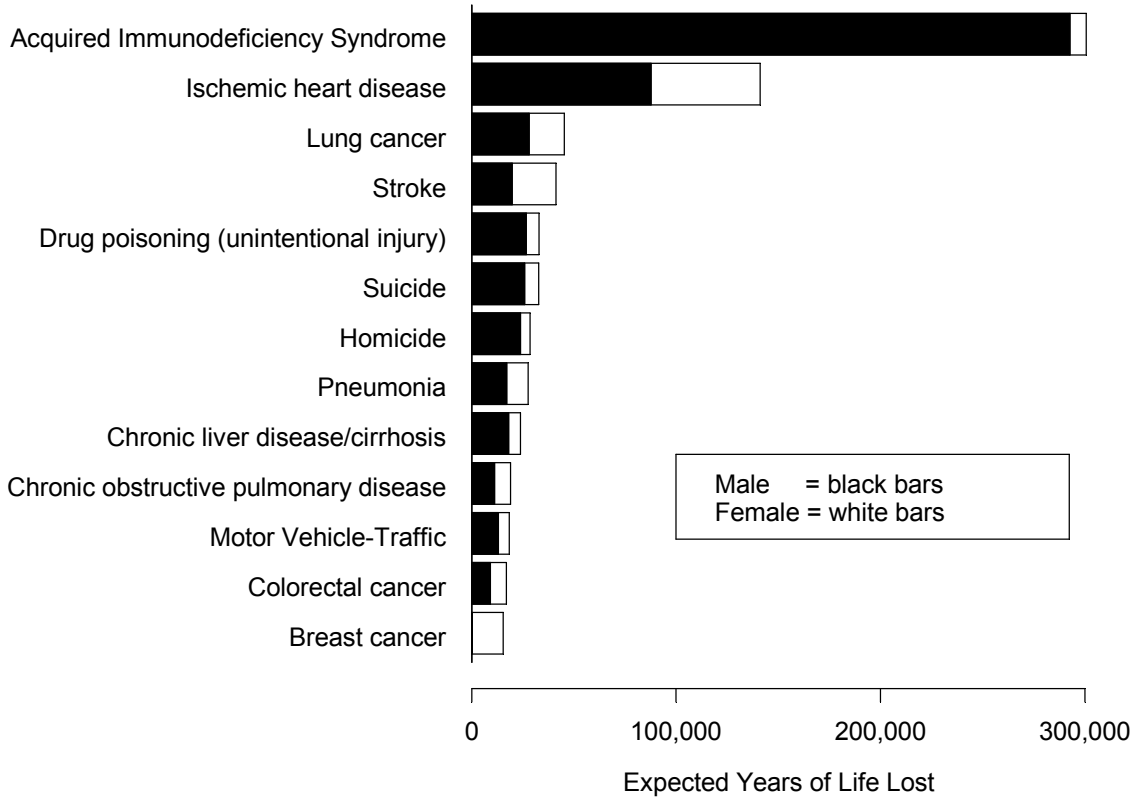


Figure 4: Standard Expected Years of Life Lost (SEYLL) from the 13 Leading Causes of Death, San Francisco 1990-1995

During the period 1990 through 1995, 48 424 San Francisco residents died, resulting in a total of 1.07 million standard expected years of life lost (SEYLL). The 13 overall leading causes of death (Figure 4) includes the ten leading causes for males and females. AIDS was the leading cause of premature mortality overall, followed by ischemic heart disease, lung cancer, stroke, and drug poisoning.

The choice of mortality measures determines the rank order of causes of death. Number of deaths, SEYLL and age-adjusted rates are compared in Table 4. The first three causes for men (AIDS, ischemic heart disease, and lung cancer) and the first two for women (ischemic heart disease and stroke) are the same on all three lists. For both sexes, the leading causes of death ranked by SEYLL and age-adjusted rates share nine out of ten causes, with causes of deaths occurring at younger ages ranking higher on the SEYLL list. For example, among females, AIDS is the tenth leading cause of death ranked by age-adjusted rates, but it is the sixth leading cause of death ranked by SEYLL. Drug poisoning, not ranked in the leading ten causes by age-adjusted rates, displaces chronic liver disease from the top ten when ranked by SEYLL. Among males, ranking by SEYLL resulted in a greater number (four vs. three) and higher ranking of injury causes of death (drug poisoning, suicide, homicide, motor vehicle-traffic) among the ten leading causes. In general, ranking leading causes of death by SEYLL did not change the order for the top three causes for males and the top five for females; however, it resulted in greater weighting of injury causes in males and the inclusion of drug poisoning in the top ten for females.

Table 4: Leading Causes of Death Comparing Mortality Counts, SEYLL, and Rates, By Sex 1990-1995

		Males			Females		
	Rank	Cause of death	Metric	%	Cause of death	Metric	%
Count		All causes	28 613	100.0	All causes	19 811	100.0
	1	HIV infection/AIDS	6 650	23.2	Ischemic heart disease	5 462	27.6
	2	Ischemic heart disease	5 548	19.4	Stroke	2 029	10.2
	3	Lung cancer	1 439	5.0	Pneumonia	1 194	6.0
	4	Stroke	1 345	4.7	Lung cancer	1 016	5.1
	5	Pneumonia	1 109	3.9	Breast cancer	722	3.6
	6	COPD	769	2.7	COPD	622	3.1
	7	Suicide	645	2.3	Colorectal cancer	538	2.7
	8	Drug poisoning (UI)	588	2.1	Diabetes mellitus	322	1.6
	9	Prostate cancer	582	2.0	Dementia/degen CNS	304	1.5
	10	Chronic liver disease	551	1.9	Lymphoma/m. myeloma	277	1.4
SEYLL		All causes	776 759	100.0	All causes	291 450	100.0
	1	HIV infection/AIDS	292 636	37.7	Ischemic heart disease	53 461	18.3
	2	Ischemic heart disease	87 724	11.3	Stroke	21 343	7.3
	3	Lung cancer	28 046	3.6	Lung cancer	17 305	5.9
	4	Drug poisoning (UI)	26 636	3.4	Breast cancer	15 218	5.2
	5	Suicide	25 922	3.3	Pneumonia	10 507	3.6
	6	Homicide	23 913	3.1	HIV infection/AIDS	8 119	2.8
	7	Stroke	19 838	2.6	Colorectal cancer	7 919	2.7
	8	Chronic liver disease	18 018	2.3	COPD	7 823	2.7
	9	Pneumonia	17 127	2.2	Suicide	6 807	2.3
	10	Motor vehicle-Traffic	13 149	1.7	Drug poisoning (UI)	6 387	2.2
Rate*		All causes	882.5	-	All causes	340.5	-
	1	HIV infection/AIDS	234.5	-	Ischemic heart disease	66.7	-
	2	Ischemic heart disease	148.6	-	Stroke	26.1	-
	3	Lung cancer	44.9	-	Lung cancer	22.6	-
	4	Stroke	33.7	-	Breast cancer	18.8	-
	5	Pneumonia	26.6	-	Pneumonia	12.4	-
	6	Suicide	24.2	-	COPD	10.1	-
	7	Homicide	21.2	-	Colorectal cancer	9.9	-
	8	Drug poisoning (UI)	20.7	-	Suicide	7.1	-
	9	Chronic liver disease	20.2	-	Chronic liver disease	6.9	-
	10	COPD	20.0	-	HIV infection/AIDS	6.9	-

* Deaths per 100 000 population per year, and age adjusted to 1940 U.S. standard million population

Table 5: Leading Causes of Death and Prevention Attribution Matrix, All Residents 1990-1995

Specific Cause of Death	SEYLL	%	Count	%	TOBACCO	DIET-EXERC	ALCOHOL	INFECTIOUS	ENVIRONMEN	FIREARMS	SEXUAL EXP	MOTOR VEHI	DRUGS
1. HIV infection/AIDS	300 755	28.2	6 832	14.1			?	●●			●●		●
2. Ischemic heart disease	141 184	13.2	11 010	22.7	●	●	*						
3. Lung cancer	45 351	4.2	2 455	5.1	●●	?			○				
4. Stroke	41 182	3.9	3 374	7.0	●	●	○*						○
5. Drug poisoning (UI)	33 023	3.1	735	1.5			●						●●
6. Suicide	32 729	3.1	845	1.7			●			●			○
7. Homicide	28 571	2.7	557	1.2			●			●●			●
8. Pneumonia	27 634	2.6	2 303	4.8	●		○	●●	○				
9. Chronic liver disease	23 871	2.2	771	1.6			●●	●					○
10. COPD	18 894	1.8	1 391	2.9	●●				○				
11. Motor Vehicle-Traffic	18 444	1.7	438	0.9			●					●●	○
12. Colorectal cancer	16 967	1.6	1 058	2.2	○	●	○						
13. Breast cancer	15 326	1.4	727	1.5	?	○	○						
14. Alcohol use (psychiatric)	13 106	1.2	384	0.8			●●						
15. Lymphomas/m. myeloma	12 644	1.2	595	1.2				○					
16. Inflam/Infect/cardiomyop.	11 756	1.1	584	1.2		○	○	○					○
17. Diabetes mellitus	10 910	1.0	633	1.3		●●							
18. Congenital anomalies	9 895	0.9	155	0.3				○	○				
19. Liver cancer	8 468	0.8	410	0.8			●	●					
20. Falls (unintentional)	7 445	0.7	323	0.7		○	●						○
1-20. TOTAL	818 155	76.6	35 580	73.5									

Underlying determinant: Tobacco consumption, Diet and/or Exercise, Alcohol consumption, Infectious agent, Environmental toxin, Firearms, Sexual exposure , Motor vehicle-traffic, Drugs (illicit).

●● Attributable fraction greater than 40%

● Attributable fraction 10% to 40%

○ Attributable fraction 2% to 10%

∗ Protective effect of alcohol consumption

? More than two studies but no consensus

The Prevention Attribution Matrices (Tables 5-7) show the number of deaths and standard expected years of life lost (SEYLL) for the 20 leading causes of death ranked by SEYLL for all, male, and female residents, respectively. In addition to showing the mortality measures by cause, the right side of each table summarizes the relationship between the leading causes of deaths in San Francisco and nine contributing factors or determinants. These underlying causative factors were identified as being the "actual cause of death" for over half the deaths in the United States in 1990 (see Methods and Reference [35]). With respect to preventable factors, sexual exposure is the leading contributing factor associated with the leading cause of death – AIDS. Of the 13 overall leading causes of death (the top ten for males and females), six were associated with tobacco consumption, nine with alcohol consumption, seven with illicit drug use, and four with diet and physical inactivity (Table 5).

Table 6: Leading Causes of Death and Prevention Attribution Matrix, Males 1990-1995

Specific Cause of Death	SEYLL	%	Count	%	TOBACCO	DIET-EXERC	ALCOHOL	INFECTIOUS	ENVIRONMEN	FIREARMS	SEXUAL EXP	MOTOR VEHI	DRUGS
1. HIV infection/AIDS	292 636	37.7	6 650	23.2			?	●●			●●		●
2. Ischemic heart disease	87 724	11.3	5 548	19.4	●	●	∗						
3. Lung cancer	28 046	3.6	1 439	5.0	●●	?			●				
4. Drug poisoning (UI)	26 636	3.4	588	2.1			●						●●
5. Suicide	25 922	3.3	645	2.3			●			●			○
6. Homicide	23 913	3.1	456	1.6			●			●●			●
7. Stroke	19 838	2.6	1 345	4.7	●	●	○∗						●
8. Chronic liver disease	18 018	2.3	551	1.9			●●	●					○
9. Pneumonia	17 127	2.2	1 109	3.9	●		○	●●	●				
10. Motor Vehicle-Traffic	13 149	1.7	296	1.0			●					●●	●
11. COPD	11 072	1.4	769	2.7	●●				○				
12. Alcohol use (psychiatric)	11 069	1.4	321	1.1			●●						
13. Colorectal cancer	9 048	1.2	520	1.8	○	●	○						
14. Inflam/Infect/cardiomyop.	8 211	1.1	364	1.3		○	○	○					○
15. Lymphomas/m. myeloma	7 866	1.0	318	1.1				○					
16. Prostate cancer	7 253	0.9	582	2.0		○	○						
17. Liver cancer	6 389	0.8	282	1.0			●	●					
18. Diabetes mellitus	5 833	0.8	311	1.1		●●							
19. Congenital anomalies	5 608	0.7	83	0.3				○	○				
20. Falls (unintentional)	5 532	0.7	195	0.7		○	●						○
1-20. TOTAL	630 890	81.2	22 372	78.2									

Underlying determinant: Tobacco consumption, Diet and/or Exercise, Alcohol consumption, Infectious agent, Environmental toxin, Firearms, Sexual exposure , Motor vehicle-traffic, Drugs (illicit).

●● Attributable fraction greater than 40%

● Attributable fraction 10% to 40%

○ Attributable fraction 2% to 10%

∗ Protective effect of alcohol consumption

? More than two studies but no consensus

The Prevention Attribution Matrices qualitatively summarize the contribution of several determinants to each of San Francisco's leading specific causes of death. Likewise, these tables summarize the leading causes of deaths attributable to a single contributing factor. Thus, for example, three of these factors contribute to the City's leading cause of death, AIDS; tobacco contributes to 6 of the 20 leading causes of male deaths, and alcohol contributes to 13 of the 20 leading causes (and is protective for two; Tables 5-7).

Table 7: Leading Causes of Death and Prevention Attribution Matrix, Females 1990-1995

Specific Cause of Death	SEYLL	%	Count	%	TOBACCO	DIET-EXERC	ALCOHOL	INFECTIOUS	ENVIRONMEN	FIREARMS	SEXUAL EXP	MOTOR VEHI	DRUGS
1. Ischemic heart disease	53 461	18.3	5 462	27.6	●	●	∗						
2. Stroke	21 343	7.3	2 029	10.2	●	●	○∗						○
3. Lung cancer	17 305	5.9	1 016	5.1	●●	?			●				
4. Breast cancer	15 218	5.2	722	3.6	?	●	○						
5. Pneumonia	10 507	3.6	1 194	6.0	●		○	●●	○				
6. HIV infection/AIDS	8 119	2.8	182	0.9			?	●●			●●		●
7. Colorectal cancer	7 919	2.7	538	2.7	○	●	○						
8. COPD	7 823	2.7	622	3.1	●●				○				
9. Suicide	6 807	2.3	200	1.0			●			●			○
10. Drug poisoning (UI)	6 387	2.2	147	0.7			●						●●
11. Chronic liver disease	5 854	2.0	220	1.1			●●	●					○
12. Motor Vehicle-Traffic	5 294	1.8	142	0.7			●					●●	○
13. Diabetes mellitus	5 077	1.7	322	1.6		●●							
14. Lymphomas/m. myeloma	4 778	1.6	277	1.4				○					
15. Ovarian cancer	4 706	1.6	256	1.3									
16. Homicide	4 658	1.6	101	0.5			●			●●			●
17. Congenital anomalies	4 287	1.5	72	0.4				○	○				
18. Inflam/Infect/cardiomyop.	3 545	1.2	220	1.1		○	○	○					○
19. Pancreas cancer	3 538	1.2	255	1.3	●								
20. Leukemia	2 884	1.0	151	0.8									
1-20. TOTAL	199 510	68.5	14 128	71.3									

Underlying determinant: Tobacco consumption, Diet and/or Exercise, Alcohol consumption, Infectious agent, Environmental toxin, Firearms, Sexual exposure , Motor vehicle-traffic, Drugs (illicit).

●● Attributable fraction greater than 40%

● Attributable fraction 10% to 40%

○ Attributable fraction 2% to 10%

∗ Protective effect of alcohol consumption

? More than two studies but no consensus

3.1.2 Racial/ethnic disparity

Although standard expected years of life lost (SEYLL) were used to rank leading causes of death, because of differences in the size and age composition of each demographic group, SEYLL are not an appropriate measure to make comparisons. Therefore, age-adjusted mortality rates were calculated to compare mortality of different race/ethnic groups. The results that follow summarize the mortality burden for San Francisco ethnic groups using mortality rates and rate ratios. In addition, life expectancies at selected ages were calculated and compared. *Life expectancy at birth* is a intuitive measure of *today's* total mortality burden and answers the following hypothetical question, "If a person born today were to experience the death rates found in this study, how many years would we expect him or her to live?"

Age-adjusted mortality rates and trends There were marked racial disparities in mortality rates for all causes combined and for specific causes of death. All-cause mortality rate trends for the three consecutive three-year periods between 1987 and 1995 were compared (Figure 5). African-American all-cause mortality rates were, by far, the highest for both sexes. Whites had the next highest mortality rates, with Latinos and Asians/others having the lowest all-cause mortality rates in San Francisco. The trends show a modest mortality rate decline over the period for African American and White males and for females. In spite of the moderate improvements for each group over this nine-year period, the racial/ethnic disparity in mortality rates did not appear to narrow.

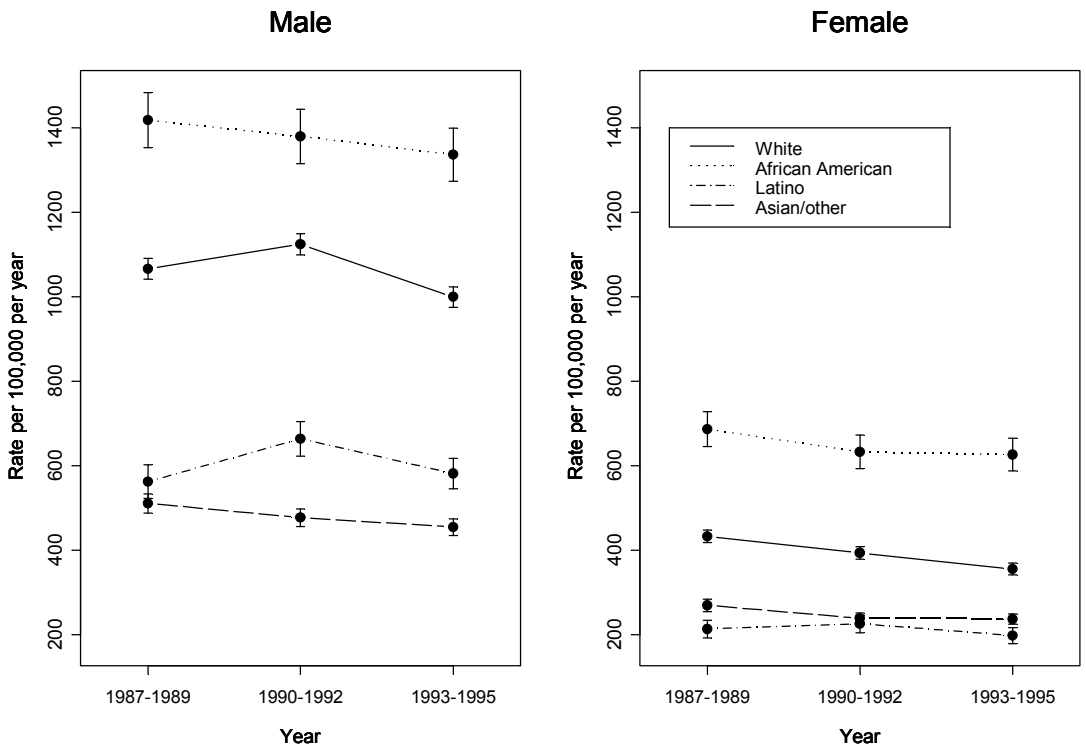


Figure 5: San Francisco All-Cause Mortality Rates by Sex and Race/Ethnicity, 1987-1995

Table 8: All-Cause Mortality Rates and Rate Ratios by Sex and Ethnicity

	Rate*	95% C.I.	Rate Ratios†				
			Total	White	African American	Latino	Asian/ Other
Total (both sexes)	605.5	(599.3, 611.8)	1.00	0.83	0.62	1.49	1.78
White	725.6	(715.5, 735.7)	1.20	1.00	0.75	1.78	2.13
African American	973.0	(947.1, 998.8)	1.61	1.34	1.00	2.39	2.86
Latino	407.3	(392.5, 422.1)	0.67	0.56	0.42	1.00	1.20
Asian/other	340.3	(332.1, 348.5)	0.56	0.47	0.35	0.84	1.00
Males	882.5	(871.6, 893.4)	1.00	0.83	0.65	1.42	1.90
White	1058.3	(1041.1, 1075.5)	1.20	1.00	0.78	1.71	2.28
African American	1359.9	(1314.9, 1404.9)	1.54	1.29	1.00	2.19	2.93
Latino	619.9	(592.8, 647.1)	0.70	0.59	0.46	1.00	1.33
Asian/other	464.6	(450.3, 478.9)	0.53	0.44	0.34	0.75	1.00
Females	340.5	(334.3, 346.7)	1.00	0.91	0.54	1.62	1.43
White	373.1	(363.3, 382.9)	1.10	1.00	0.59	1.77	1.57
African American	629.3	(601.5, 657.1)	1.85	1.69	1.00	2.99	2.65
Latino	210.5	(196.6, 224.5)	0.62	0.56	0.33	1.00	0.89
Asian/other	237.8	(228.8, 246.9)	0.70	0.64	0.38	1.13	1.00

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

†Rate ratio (RR) = (rate of group from row name) $\div$ (rate of group from column name)

To compare relative differences in mortality rates among males and females, rate ratios for each ethnic group relative to each other and to all groups combined were calculated (Table 8). Non-overlapping 95% confidence intervals represent mortality rate differences that were statistically significant (P value < 0.05). Rate ratios, shown in the five right-hand columns, are read as the rate for the row group compared to the rate of the column group (serving as the reference group). For example, the second row, last column entry of the table was 2.13 which meant that the mortality rate for all Whites was 2.13 times (or 113% higher than) the rate of all Asian/others ($725.6 \div 340.3$).

In general, Whites are often chosen as a reference group to make comparisons. However, in Table 8 any group can serve as a reference. For example, African Americans males had the highest all-cause mortality rate, followed by Whites, Latinos, and Asian/others; with the Asian/other mortality rate as a reference (right-hand column), Latino, White, and African American rates were 33% ($RR = 1.33$), 128% ($RR = 2.28$), and 193% ($RR = 2.93$) higher, respectively. Among females, African Americans had the highest all-cause mortality rate, followed by Whites, Asian/others, and Latinos; with the Latino mortality rate as a reference, Asian/other, White, and African American rates were 13% ($RR = 1.13$), 77% ($RR = 1.77$), and 199% ($RR = 2.99$) higher respectively.

For males and females, African American age-adjusted mortality rates were the highest for almost all of the leading causes of death (Figures 6-7). With the exception of AIDS and suicide, African-American males had the highest mortality rates among the four ethnic groups for 10 of the 12 leading causes of death in San Francisco. Their mortality rates were significantly higher than the other groups for six of the top eight causes (ischemic heart disease, lung cancer, stroke, drug poisoning, homicide, and pneumonia). With the exception of suicide, chronic obstructive pulmonary disease and motor vehicle-traffic deaths, African American females had the highest mortality rates for 10 of the 13 leading causes of death. Their mortality rates are significantly higher for five of the seven leading causes (AIDS, ischemic hearth disease, stroke, drug poisoning, and homicide) and breast cancer.

See also Section 3.6, p. 74, for ethnicity profiles that summarize leading causes of death for each group.

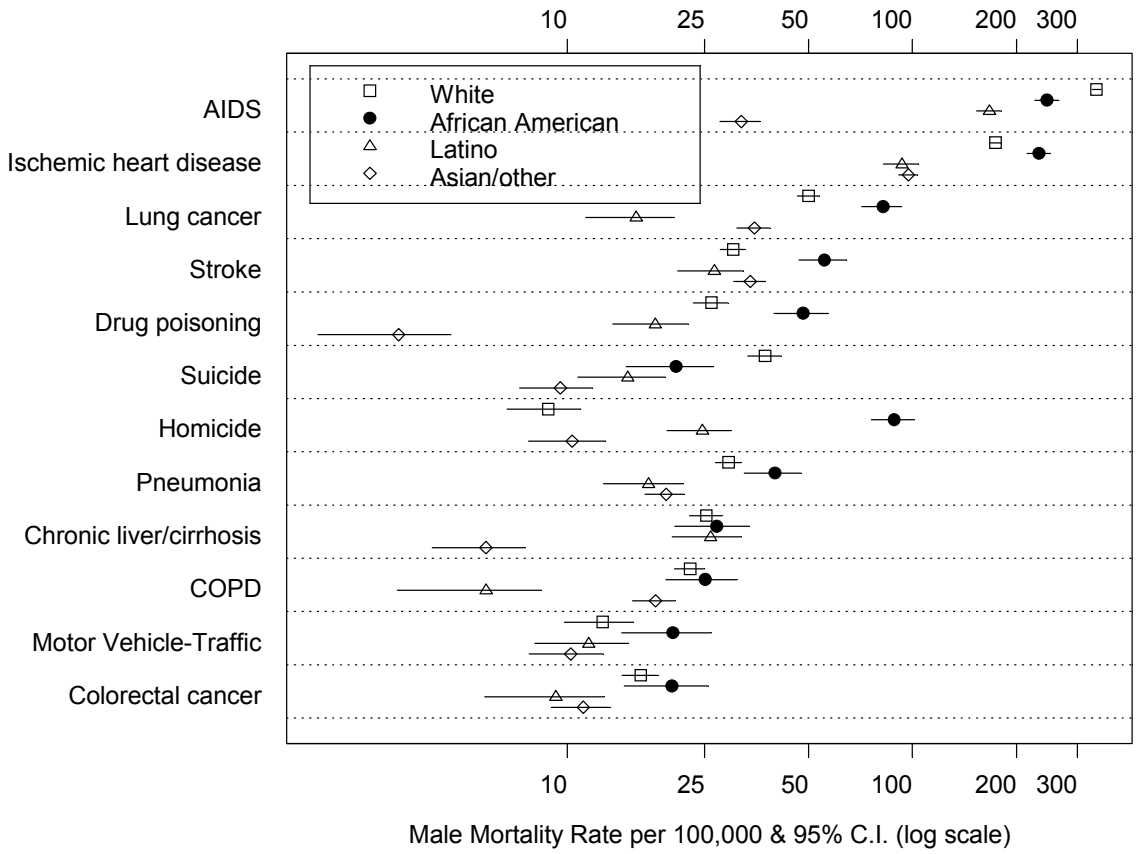


Figure 6: Male mortality rates for leading causes of death, 1990-1995. Rate per 100,000 per year and adjusted to 1940 U.S. standard million population. (See Table below)

Table 9: Male age-adjusted mortality rates for leading causes of death, 1990-1995

	White	African American	Latino	Asian/ Other	Healthy People 2000 Objectives [17]
Acquired Immunodeficiency Syndrome (AIDS)	341.3	245.6	167.1	32.0	none
Ischemic heart disease	174.2	232.6	93.3	97.4	100.0
Lung cancer	50.1	82.2	15.8	34.8	42.0
Stroke	30.3	55.7	26.7	33.9	20.0
Drug poisoning (unintentional injury)	26.2	48.3	18.0	3.3	none
Suicide	37.5	20.7	15.0	9.6	10.5
Homicide	8.8	88.6	24.7	10.3	7.2
Pneumonia	29.4	40.0	17.2	19.3	not comparable
Chronic liver disease/ cirrhosis	25.3	27.1	26.0	5.8	6.0
Chronic Obstructive Pulmonary Disease (COPD)	22.7	25.2	5.8	18.0	25.0
Motor Vehicle-Traffic	12.7	20.3	11.5	10.2	not comparable
Colorectal cancer	16.4	20.1	9.3	11.1	13.2

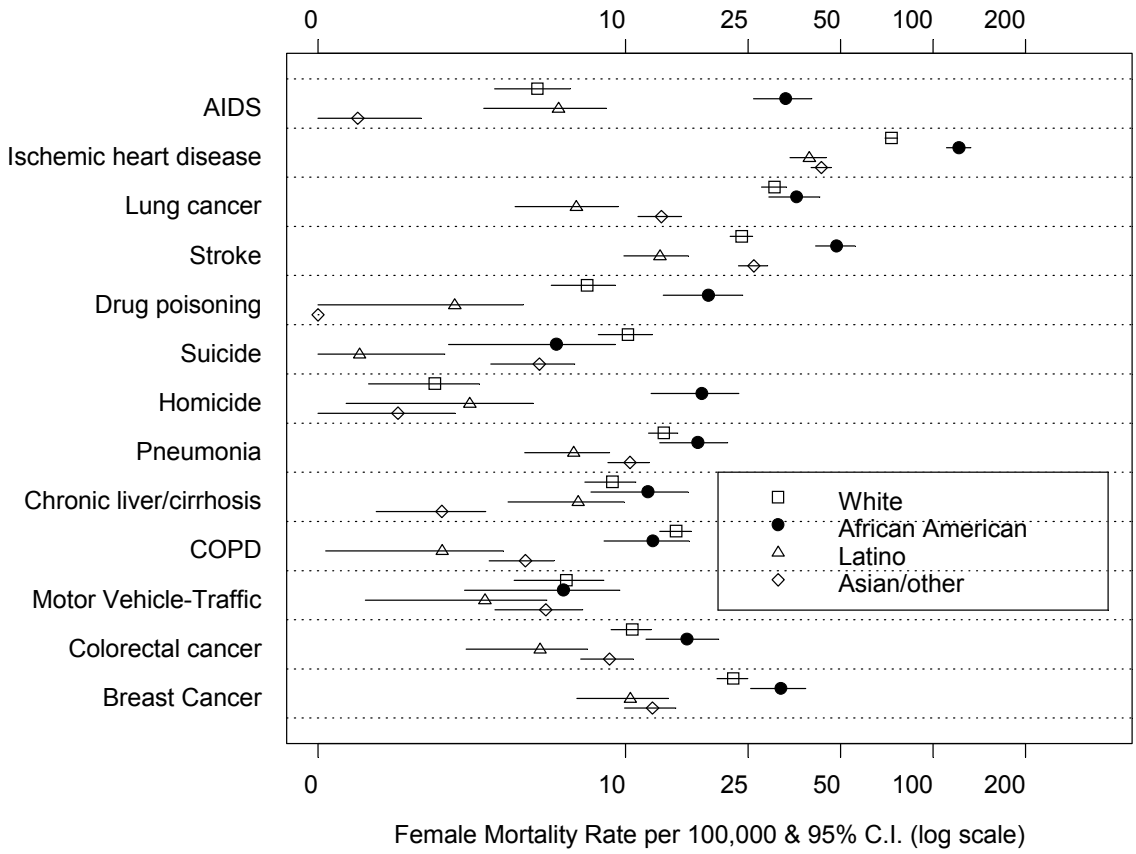


Figure 7: Female mortality rates for leading causes of death, 1990-1995. Rate per 100,000 per year and adjusted to 1940 U.S. standard million population. See Table below.

Table 10: Female age-adjusted mortality rates for leading causes of death, 1990-1995

	White	African American	Latino	Asian/ Other	Healthy People 2000 Objectives [17]
Acquired Immunodeficiency Syndrome (AIDS)	5.2	33.2	6.1	1.3	none
Ischemic heart disease	73.2	121.5	39.5	43.4	100.0
Lung cancer	30.5	36.0	6.9	13.1	42.0
Stroke	23.9	48.6	12.9	26.1	20.0
Drug poisoning (unintentional injury)	7.5	18.6	2.8	0.4	none
Suicide	10.2	6.0	1.4	5.2	10.5
Homicide	2.4	17.7	3.1	1.8	7.2
Pneumonia	13.3	17.2	6.8	10.3	not comparable
Chronic liver disease/ cirrhosis	9.1	11.8	7.0	2.5	6.0
Chronic Obstructive Pulmonary Disease (COPD)	14.6	12.3	2.5	4.7	25.0
Motor Vehicle-Traffic	6.4	6.3	3.5	5.5	not comparable
Colorectal cancer	10.5	15.9	5.3	8.9	13.2
Breast cancer	22.4	32.0	10.4	12.2	20.6

Life expectancy at selected ages: Although age-adjusted all-cause mortality rates facilitate valid comparisons between different population groups, the actual number is difficult to interpret. For this reason, all-cause mortality rates were used to calculate life expectancy at selected ages for each sex and ethnic group. Recall, *life expectancy at birth* is a intuitive measure of *today's* total mortality burden and answers the following hypothetical question, "If a person born today were to experience the death rates found in this study, how many years would we expect him or her to live?" Alternatively, we could ask, "If a 45 years old Latino female were to experience the death rates found in this study, how many years would we expect her to live? The answer, from Table 11, is 44.5 years.

For San Francisco, African Americans had the lowest life expectancy at birth, however the disparity between ethnic groups was greatest among males (Table 11). The life expectancy at birth of 60.0 years for African American males in San Francisco was lower than for other groups and lower than the 1940 U.S. White male life expectancy at birth. The highest life expectancies at birth were for Latino females (87.9 years) and Asian/other females (84.6 years).

Table 11: Life Expectancy at Birth and Selected Ages by Ethnicity and Sex: United States 1940, 1970, 1993; and San Francisco, 1990-1995

	Males				Females			
Exact age in years (year)	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
United States*								
0 . . . . . (1940)	62.1	- - -	- - -	- - -	66.6	- - -	- - -	- - -
0 . . . . . (1970)	68.0	60.0	- - -	- - -	75.6	68.3	- - -	- - -
0 . . . . . (1993)	73.1	64.6	- - -	- - -	79.5	73.7	- - -	- - -
San Francisco								
0	64.9	60.0	73.4	77.0	79.8	73.2	87.9	84.6
1	64.2	60.0	72.9	76.4	79.1	73.0	87.2	84.0
5	60.3	56.1	69.0	72.5	75.2	69.2	83.3	80.1
10	55.3	51.1	64.0	67.6	70.2	64.3	78.4	75.2
15	50.4	46.3	59.2	62.7	65.3	59.3	73.4	70.2
20	45.5	41.7	54.6	57.9	60.4	54.5	68.5	65.3
25	41.1	37.6	50.0	53.2	55.5	49.8	63.6	60.4
30	36.7	33.5	45.7	48.5	50.7	45.1	58.7	55.5
35	33.1	30.1	41.8	43.8	45.9	40.7	53.9	50.6
40	30.1	27.0	38.3	39.3	41.1	36.5	49.1	45.7
45	27.4	24.3	34.8	34.9	36.5	32.5	44.5	41.0
50	24.5	21.7	31.3	30.5	31.9	28.6	39.9	36.3
55	21.4	18.7	27.7	26.2	27.6	24.9	35.3	31.7
60	18.2	15.9	23.9	22.2	23.4	21.2	30.9	27.3
65	15.1	13.6	20.2	18.3	19.6	18.0	26.7	23.0
70	12.2	11.2	16.7	14.9	15.9	15.2	22.8	18.9
75	9.3	9.2	13.4	11.7	12.6	12.3	19.0	15.1
80	6.9	7.5	10.9	9.1	9.6	9.8	15.7	11.8
85	4.7	6.1	8.9	7.1	7.0	7.9	12.7	9.3

- - - Comparable data not available

*Anderson RN, Kochanek KD, Murphy SL. Report of final mortality statistics, 1995. Monthly vital statistics report; vol 45 no 11, supp 2. Hyattsville, Maryland: National Center for Health Statistics. 1997

Life expectancy in the absence of selected causes of death: If a specific disease or injury could be eliminated as a cause of death, how long would life expectancy at birth be extended? Although hypothetical, the answer to this question highlights those causes of death which, if eliminated, have the greatest potential to improve life expectancy. For the 13 overall leading causes of deaths, Table 12 shows the expected gain in life expectancy at birth that would occur for each sex and race/ethnic group if each cause alone were to be eliminated completely. For example, for White and African American males, the biggest improvement in life expectancy would occur with the elimination of AIDS mortality. In contrast, for all female ethnic groups, especially Latinos, ischemic heart disease has the biggest impact on life expectancy.

Table 12: Improvement in Life Expectancy at Birth (Years) in the Theorectical Absence of Each Leading Cause of Death, by Sex and Ethnicity, San Francisco 1990-1995

Selected causes of deaths	White	African American	Latino	Asian/ other
Male (life expectancy at birth)	(64.9)	(60.0)	(73.4)	(77.0)
AIDS	6.6	4.0	4.3	0.9
Ischemic heart disease	2.9	3.0	4.4	3.6
Lung cancer	0.7	0.9	0.5	0.9
Stroke	0.4	0.6	1.0	1.1
Drug poisoning	0.5	0.7	0.4	0.1
Suicide	0.7	0.3	0.4	0.3
Homicide	0.2	1.7	0.7	0.3
Pneumonia	0.4	0.5	0.7	0.8
Chronic liver/cirrhosis	0.4	0.4	0.6	0.2
COPD	0.3	0.2	0.2	0.5
Motor Vehicle-Traffic	0.3	0.4	0.3	0.3
Colorectal cancer	0.2	0.2	0.3	0.3
Female (life expectancy at birth)	(79.8)	(73.2)	(87.9)	(84.6)
AIDS	0.2	0.8	0.2	.04
Ischemic heart disease	4.1	4.5	6.9	3.9
Lung cancer	0.9	0.8	0.4	0.6
Stroke	1.0	1.4	1.9	1.9
Drug poisoning	0.2	0.4	0.1	0.0
Suicide	0.3	0.1	.05	0.2
Homicide	0.1	0.5	0.1	0.1
Pneumonia	0.6	0.5	1.1	1.0
Chronic liver/cirrhosis	0.2	0.3	0.3	0.1
COPD	0.4	0.3	0.2	0.3
Motor Vehicle-Traffic	0.2	0.2	0.1	0.2
Colorectal cancer	0.3	0.4	0.3	0.4
Breast Cancer	0.7	0.7	0.5	0.4

3.1.3 Sex differences

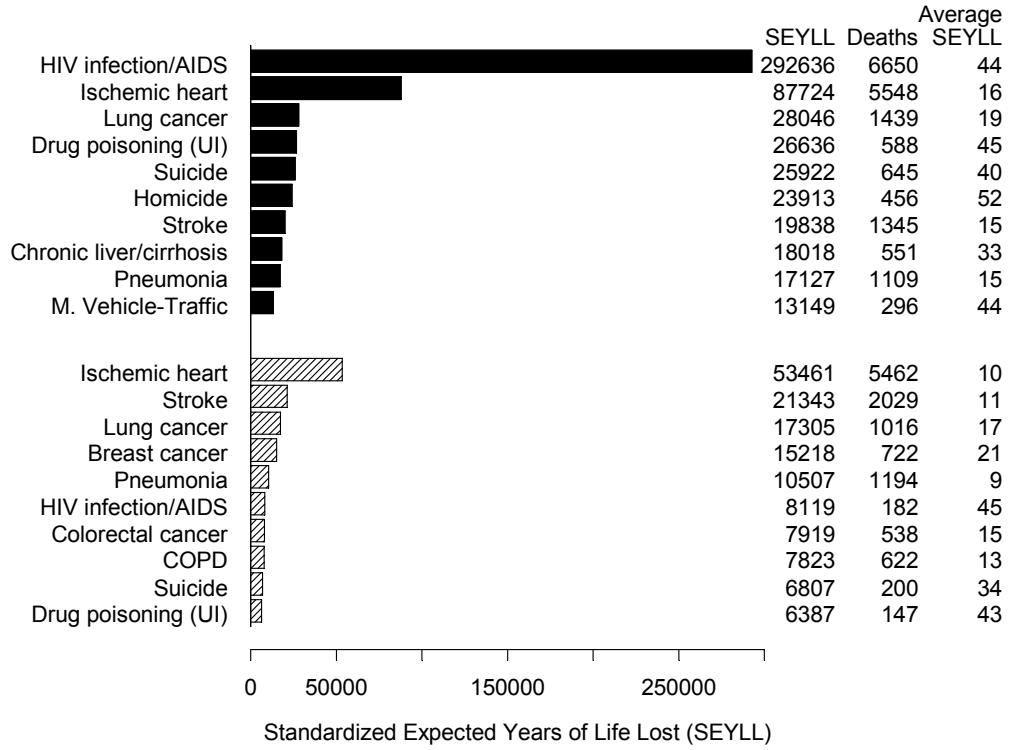


Figure 8: Leading causes of death for males (top) and females (bottom), 1990-1995. For all causes, there were 28,613 male deaths (SEYLL = 776,759 years) and 19,811 female deaths (SEYLL = 291,450 years). The 1990 Census population was 723,965 residents.

Among males: AIDS was the leading cause of death, representing 37.7% of the 776 759 expected years of life lost from all causes, followed by ischemic heart disease (11.3%), and together account for 49% of years of life lost. The causes of premature deaths were homicide, drug poisoning, AIDS, motor vehicle-traffic, suicide, and cirrhosis, causing an average of 52, 45, 44, 44, 40 and 33 expected years of life lost per death, respectively. Injuries were the fourth, fifth, sixth, and tenth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, stroke, and pneumonia), alcohol with eight (AIDS, drug poisoning, suicide, homicide, stroke, cirrhosis, pneumonia, and MV-traffic), drug use with seven (AIDS, drug poisoning, suicide, homicide, stroke, cirrhosis, MV-traffic) and diet/physical inactivity with three (ischemic heart disease, lung cancer, stroke) (Table 6, p. 24).

Among females: Ischemic heart disease was the leading cause of death, representing 18.3% of the 291 450 expected years of life lost from all causes, followed by stroke (7.3%), and lung cancer (5.9%). The causes of premature deaths were AIDS, drug poisoning, and suicide, causing an average of 45, 43 and 34 expected years of life lost per death, respectively. Injuries were the sixth and tenth leading causes of death. Tobacco was associated with seven leading causes (ischemic heart disease, stroke, lung cancer, breast cancer, pneumonia, colorectal cancer, and chronic obstructive pulmonary disease), alcohol with six (stroke, breast cancer, pneumonia, AIDS, colorectal cancer, suicide, and drug poisoning), drug use with four (stroke, AIDS, suicide, drug poisoning) and diet/physical inactivity with five (ischemic heart disease, stroke, lung cancer, breast cancer, colorectal cancer) (Table 7, p. 25).

3.1.4 Age differences

Table 3, presented earlier, summarized the distribution of deaths by age group, sex and major cause of death category (communicable, maternal-perinatal-nutritional, noncommunicable, injury). This section presents the leading specific causes of death by age group and sex. Tables 13-15 show the leading causes of death by age group: for the whole population (Table 13), for males (Table 14), and for females (Table 15).

From 1990 through 1995, the following results are summarized from Table 13:

- 362 infants less than one year old died (average of 60 per year), representing 29 865 expected years of life lost. Sudden Infant Death Syndrome (SIDS) was the leading cause of infant death: 85 deaths and 7 012 expected years of life lost. SIDS was followed by congenital anomalies (70 deaths, 5 775 expected years of life lost), and birth asphyxia & trauma (43 deaths, 1 155 expected years of life lost). Four infants died from homicide and three died from AIDS.

- 72 infants/toddlers, ages one to four, died (average of 12 per year), representing 5 892 expected years of life lost. In this age group congenital anomalies was the leading cause of death (16 deaths, 1 309 expected years of life lost), followed by homicide (7 deaths, 573 expected years of life lost), motor vehicle-traffic accidents (5 deaths, 409 expected years of life lost), and fires (4 deaths, 327 expected years of life lost).

- 76 children, ages 5 to 14 years, died (average of 13 per year), representing 5 726 expected years of life lost. In this age group motor vehicle-traffic accidents were the leading cause of death (15 deaths, 1 130 expected years of life lost), followed by congenital anomalies (8 deaths, 594 expected years of life lost), homicide (7 deaths, 521 expected years of life lost), and leukemia (5 deaths, 385 expected years of life lost).

- 517 young adults, ages 15 to 24 years, died (average of 86 per year), representing 33 329 expected years of life lost. In this age group homicide was the leading cause of death (157 deaths, 10 180 expected years of life lost), followed by suicide (79 deaths, 5 067 expected years of life lost), motor vehicle-traffic accidents (78 deaths, 5 024 expected years of life lost), AIDS (30 deaths, 1 892 expected years of life lost), and drug poisoning (22 deaths, 1 398 expected years of life lost).

- 8 110 adults, ages 25 to 44 years, died (average of 1 352 per year), representing 394 595 expected years of life lost. In this age group AIDS was the leading cause of death (4 640 deaths, 224 627 expected years of life lost), followed by drug poisoning (506 deaths, 25 035 expected years of life lost), suicide (350 deaths, 17 534 expected years of life lost), homicide (264 deaths, 13 821 expected years of life lost), and chronic liver disease (189 deaths, 8 952 expected years of life lost).

- 8 845 adults, ages 45 to 64 years, died (average of 1 474 per year), representing 279 156 expected years of life lost. In this age group AIDS was the leading cause of death (2 031 deaths, 71 666 expected years of life lost), followed by chronic conditions for which mortality increases greatly with aging: ischemic heart disease, lung cancer, chronic liver disease, and stroke.

- 30 339 older adults, aged 65 years or older, died (average of 5 057 per year), representing 319 646 expected years of life lost. The leading cause of death was ischemic heart disease, followed by stroke, lung cancer, pneumonia, and COPD.

Homicide was between the first and seventh leading cause of death in each age group from birth through 44 years. AIDS was between the first and eighth leading cause of death in every age group from birth through 64 years. Motor vehicle-traffic accidents were between the first and sixth leading cause of death in every age group from 1 through 44 years.

Breast cancer was between the second and sixth leading cause of death for females in all age groups from 25 years or older (Table 15, p. 36). In contrast, prostate cancer, an exclusively male cancer, was as high as the sixth leading cause of death only for males 65 years or older (Table 14, p. 35).

Table 13: Age-specific Leading Causes of Death, All Residents 1990-1995

	Ages < 1	SEYLL	Deaths	Ages 1-4	SEYLL	Deaths
1	SIDS	7 012	85	Congenital anomalies	1 309	16
2	Congenital anomalies	5 775	70	Homicide	573	7
3	Birth asphyxia & trauma	3 548	43	Motor Vehicle-Traffic	409	5
4	Growth/gestation/LBW	1 155	14	Fires, UI	327	4
5	Pneumonia	660	8	Brain cancer	246	3
6	Diarrhea	412	5	AIDS	246	3
7	Homicide	330	4	COPD	164	2
8	AIDS	248	3	Dementia/degenerative CNS	164	2
9	Fires, UI	165	2	Drownings, UI	164	2
10	Inflam/infect cardiomyopathy	165	2	Inflam/infect cardiomyopathy[a]	164	2
	All causes total	29 865	362	All causes total	5 892	72
	Ages 5-14	SEYLL	Deaths	Ages 15-24	SEYLL	Deaths
1	Motor Vehicle-Traffic	1 130	15	Homicide	10 180	157
2	Congenital anomalies	594	8	Suicide	5 067	79
3	Homicide	521	7	Motor Vehicle-Traffic	5 024	78
4	Leukemia	385	5	AIDS	1 892	30
5	Brain cancer	297	4	Drug poisoning, UI	1 398	22
6	AIDS	297	4	Drownings, UI	782	12
7	Inflam/infect cardiomyopathy	156	2	Congenital anomalies	646	10
8	Lymphomas/Mult. myeloma	156	2	Falls, UI	573	9
9	Fires, UI	151	2	Lymphomas/Mult. myeloma	519	8
10	Stroke	151	2	Firearm, UI[b]	466	7
	All cause total	5 726	76	All cause total	33 329	517
	Ages 25-44	SEYLL	Deaths	Ages 45-64	SEYLL	Deaths
1	AIDS	224 627	4 640	AIDS	71 666	2 031
2	Drug poisoning, UI	25 035	506	Ischemic heart disease	39 576	1356
3	Suicide	17 534	350	Lung cancer	19 440	663
4	Homicide	13 821	264	Chronic liver disease	11 636	363
5	Chronic liver disease	8 952	189	Stroke	9 175	305
6	Motor Vehicle-Traffic	7 827	148	Suicide	7 809	237
7	Ischemic heart disease	7 461	161	Breast cancer	6 889	221
8	Alcohol use (psych)	5 526	116	Alcohol use (psych)	6 423	196
9	Pneumonia	4 549	94	Drug poisoning, UI	6 208	177
10	Stroke	3 503	75	Pneumonia	5 557	178
	All causes total	394 595	8 110	All causes total	279 156	8 845
	Ages 65+	SEYLL	Deaths	All ages	SEYLL	Deaths
1	Ischemic heart disease	94 084	9476	AIDS	300 755	6 832
2	Stroke	27 873	2984	Ischemic heart disease	141 184	11 010
3	Lung cancer	23 594	1739	Lung cancer	45 351	2 455
4	Pneumonia	16 447	2017	Stroke	41 182	3 374
5	COPD	14 086	1222	Drug poisoning, UI	33 023	735
6	Colorectal cancer	9 991	846	Suicide	32 729	845
7	Prostate cancer	6 136	542	Homicide	28 571	557
8	Diabetes mellitus	5 755	482	Pneumonia	27 634	2 303
9	Breast cancer	5 471	443	Chronic liver disease	23 871	771
10	Lymphomas/Mult. myeloma	4 837	390	COPD	18 894	1 391
	All causes total	319 646	30 339	All causes total	1 068 209	48 424

[a] Tied with Leukemia, Pneumonia; [b] Tied with Leukemia; UI = Unintentional injury

Table 14: Age-specific Leading Causes of Death, Male Residents 1990-1995

	Ages < 1	SEYLL	Deaths	Ages 1-4	SEYLL	Deaths
1	SIDS	4 538	55	Congenital anomalies	818	10
2	Congenital anomalies	3 465	42	Homicide	491	6
3	Birth asphyxia & trauma	1 650	20	Fires, UI	246	3
4	Growth/gestation/LBW	742	9	Motor Vehicle-Traffic	246	3
5	Pneumonia	330	4	Leukemia	164	2
6	Diarrhea	248	3	Pneumonia	164	2
7	Homicide	165	2	Brain cancer	82	1
8	Inflam/infect cardiomyopathy	165	2	Diarrhea	82	1
9	Falls, UI	82	1	Drownings, UI	82	1
10	Fires, UI[a]	82	1	Falls, UI[b]	82	1
	All causes total	17 242	209	All causes total	3 437	42
	Ages 5-14	SEYLL	Deaths	Ages 15-24	SEYLL	Deaths
1	Motor Vehicle-Traffic	672	9	Homicide	9 282	143
2	Homicide	448	6	Suicide	4 164	65
3	Congenital anomalies	375	5	Motor Vehicle-Traffic	3 806	59
4	Brain cancer	297	4	AIDS	1 829	29
5	HIV/AIDS	224	3	Drug poisoning, UI	1 009	16
6	Drownings, UI	219	3	Drownings, UI	719	11
7	Inflam/infect cardiomyopathy	156	2	Firearm, UI	466	7
8	Lymphomas/Mult. myeloma	156	2	Falls, UI	446	7
9	Leukemia	151	2	Leukemia	398	6
10	Dementia/degenerative CNS[c]	73	1	Congenital anomalies[d]	320	5
	All causes total	3 661	49	All causes total	26 819	416
	Ages 25-44	SEYLL	Deaths	Ages 45-64	SEYLL	Deaths
1	AIDS	21 8629	4520	AIDS	70 232	1989
2	Drug poisoning, UI	20 538	415	Ischemic heart disease	31 722	1079
3	Suicide	14 484	289	Lung cancer	12 937	442
4	Homicide	11 153	213	Chronic liver disease	9 136	281
5	Chronic liver disease	6 992	147	Suicide	5 709	173
6	Ischemic heart disease	6 280	136	Alcohol use (psych)	5 434	166
7	Motor Vehicle-Traffic	5 996	113	Stroke	5 254	173
8	Alcohol use (psych)	4 757	100	Drug poisoning, UI	4 848	138
9	Pneumonia	3 804	79	Pneumonia	4 330	136
10	Hepatitis	2 860	61	Liver cancer	3 195	108
	All causes total	348 754	7 172	All causes total	212 069	6 612
	Ages 65+	SEYLL	Deaths	All ages	SEYLL	Deaths
1	Ischemic heart disease	49 658	4320	AIDS	292 636	6 650
2	Lung cancer	13 430	959	Ischemic heart disease	87 724	5 548
3	Stroke	12 169	1122	Lung cancer	28 046	1 439
4	Pneumonia	8 373	886	Drug poisoning, UI	26 636	588
5	COPD	7 924	658	Suicide	25 922	645
6	Prostate cancer	6 136	542	Homicide	23 913	456
7	Colorectal cancer	4 930	396	Stroke	19 838	1 345
8	Inflam/infect cardiomyopathy	2 694	221	Chronic liver disease	18 018	551
9	Diabetes mellitus	2 671	223	Pneumonia	17 127	1 109
10	Lymphomas/Mult. myeloma	2 318	178	Motor Vehicle-Traffic	13 149	296
	All causes total	164 776	14 029	All causes total	776 759	28 613

[a] Tied with HIV/AIDS, Nephritis/nephrosis , Stroke

[b] Tied with HIV/AIDS, Inflam/cardiomyop, Lymphomas/MM, Stroke, Upper respiratory

[c] Tied with Fires, UI, Suicide, [d] Tied with Lymphomas/MM, UI = Unintentional injury

Table 15: Age-specific Leading Causes of Death, Female Residents 1990-1995

	Ages < 1	SEYLL	Deaths	Ages 1-4	SEYLL	Deaths
1	SIDS	2 475	30	Congenital anomalies	491	6
2	Congenital anomalies	2 310	28	Motor Vehicle-Traffic	164	2
3	Birth asphyxia & trauma	1 898	23	COPD	164	2
4	Growth/gestation/LBW	412	5	Dementia/degenerative CNS	164	2
5	Pneumonia	330	4	Brain cancer	164	2
6	Homicide	165	2	AIDS	164	2
7	Diarrhea	165	2	Birth asphyxia & trauma	82	1
8	AIDS	165	2	Drownings, UI	82	1
9	Fires, UI	82	1	Fires, UI	82	1
10	Meningitis[a]	82	1	Homicide[b]	82	1
	All causes total	12 622	153	All causes total	2 455	30
	Ages 5-14	SEYLL	Deaths	Ages 15-24	SEYLL	Deaths
1	Motor Vehicle-Traffic	458	6	Motor Vehicle-Traffic	1 218	19
2	Leukemia	234	3	Suicide	903	14
3	Congenital anomalies	219	3	Homicide	898	14
4	Stroke	151	2	Drug poisoning, UI	388	6
5	Fires, UI	78	1	Congenital anomalies	325	5
6	AIDS	73	1	Lymphomas/Mult. myeloma	199	3
7	Homicide	73	1	Fires, UI	131	2
8				Ovarian cancer	131	2
9				Pneumonia	131	2
10				Falls, UI	126	2
	All causes total	2 065	27	All causes total	6 509	101
	Ages 25-44	SEYLL	Deaths	Ages 45-64	SEYLL	Deaths
1	AIDS	5 998	120	Ischemic heart disease	7 854	277
2	Drug poisoning, UI	4 497	91	Breast cancer	6 850	220
3	Suicide	3 050	61	Lung cancer	6 502	221
4	Breast cancer	2 966	63	Stroke	3 920	132
5	Homicide	2 668	51	Chronic liver disease	2 500	82
6	Chronic liver disease	1 960	42	Suicide	2 100	64
7	Motor Vehicle-Traffic	1 831	35	Colorectal cancer	2 074	71
8	Stroke	1 442	31	Ovarian cancer	2 065	71
9	Ischemic heart disease	1 181	25	Lymphomas/Mult. myeloma	1 499	50
10	Inflam/infect cardiomyopathy	813	16	HIV/AIDS	1 435	42
	All cause total	45 841	938	All cause total	67 087	2 233
	Ages 65+	SEYLL	Deaths	All ages	SEYLL	Deaths
1	Ischemic heart disease	44 426	5156	Ischemic heart disease	53 461	5 462
2	Stroke	15 704	1862	Stroke	21 343	2 029
3	Lung cancer	10 164	780	Lung cancer	17 305	1 016
4	Pneumonia	8 074	1131	Breast cancer	15 218	722
5	COPD	6 162	564	Pneumonia	10 507	1 194
6	Breast cancer	5 402	439	AIDS	8 119	182
7	Colorectal cancer	5 060	450	Colorectal cancer	7 919	538
8	Diabetes mellitus	3 084	259	COPD	7 823	622
9	Lymphomas/Mult. myeloma	2 519	212	Suicide	6 807	200
10	Pancreas cancer	2 516	220	Drug poisoning, UI	6 387	147
	All causes total	154 870	16 310	All causes total	291 450	19 811

[a] Tied with M. Vehicle-Traffic;

[b] Tied with Inflam/infect cardiomyopathy

UI = Unintentional injury

3.1.5 Comments

The cause of death categories in this report are more specific than those used by the National Center for Health Statistics. This was done partly to follow the categories used in the WHO Global Burden of Disease and Injury Report, and partly because more specific causes of death are more useful for planning prevention actions. We report on cancers of specific sites rather than all cancers, and unintentional injuries of particular types rather than all unintentional injuries, so that the Department and the public can better target which types of cancers or injuries pose a greater burden of premature mortality, and which interventions might best reduce this burden.

We used the international classification of disease (ICD-9) categories for the "underlying cause of death" listed on the death certificates to develop a systematic and comprehensive analysis of all deaths from all underlying causes. Mortality data from all causes provided in the Appendix. Here, we present data for and discuss only the leading causes of deaths. This allows users of this report to focus on the diseases causing the greatest burden of premature death, for San Francisco as a whole and for each of its many communities.

Comparisons within groups: Many of the leading causes of death are shared across population groups. A few can be identified as more important in particular groups or areas.

Rankings within groups describe the relative importance of causes of death in a group, but they do not quantify the relative importance of causes. For that, it is useful to look at the proportion of a group's total SEYLL represented by the various leading causes. For each group, all but a handful of causes contribute less than 5% to the total mortality of that group. This partly reflects the skewing effects of AIDS, which represents such a large part of SEYLL among White, African American and Latino men, and consequently leaves a smaller percentage for all the rest of the causes. Among females AIDS does not exert this effect on mortality proportions, but still there are no more than four causes contributing more than 5% of any female group's total SEYLL . Only ischemic heart disease causes more than 10% of total SEYLL among all ethnicities, and stroke is a similarly cause of death among Asian females.

Comparisons of rankings across ethnic groups or geographic areas can be used to show differences in the relative importance of particular causes or clusters of causes across those groups. But we cannot directly compare numbers of SEYLL across groups that have different size populations or age distributions, as all ethnic groups and ZIP code based areas do. Such comparisons are best based on the rate of mortality per cause per unit of population in each group. Age-adjusted rates in particular, while not very meaningful in themselves, have been developed for the purpose of comparing across groups of different sizes and mixes of ages. (They are calculated by applying the age-specific rates of each group to the same standard population and adding the results.) Thus for example, stroke ranks lower among causes of death among African American males (sixth) than it does among Asian males (fourth) or, even though the rate of stroke is 64% higher among African American males (55.7) than it is among Asian males (33.9). (see Tables 22 and 23, pp. 46-47).

Comparisons across groups: Tables 9 and 10 (pp. 28-29) show mortality rates by race/ethnicity for the leading causes of death. On the same pages, Figures 6 and 7 display these rates graphically. Non-overlapping 95% confidence interval represent significant differences in rates.

African American males and females stand out as having the highest rates for most of the leading causes. Their rates are significantly higher than any other group for all-cause mortality and for 6 of the 12 leading specific causes of death among males, and 7 of the 13 leading causes among females. The only other group with significantly higher rates are White males, for AIDS and suicide. Asian males and females have the lowest rates for the causes that are most clearly drug and alcohol-related (drug poisoning and chronic liver disease). Also, Asians have the lowest overall mortality rates among males and for AIDS. Latinos have the lowest mortality rates for the two causes of death that are most strongly tobacco-attributable, lung cancer and COPD (though the COPD rate for Latino females is not significantly lower than for Asian females). Latino females have the lowest death rate overall and for suicide.

Male death rates are significantly higher than female death rates for all the leading causes, except breast cancer. African American and White males have all the significantly high rates, and Latino

and Asian females have significantly lower rates, overall and for each of the leading causes of death.

Comparisons across time: The time trends shown in Figures 5, 9 and 11 through 22, compare recent changes in death rates, over the periods 1987-1989, 1990-1992, and 1993-1995, for overall mortality and for each of the leading causes of death. They show that rates for many causes and many sex-ethnicity groups appear to have stayed steady or declined somewhat.

Healthy People 2000 objectives The Healthy People 2000 objectives were established to allow federal, state and local health jurisdictions to work toward commonly agreed on health targets during this decade. San Francisco's progress toward these national targets is shown in the right-hand columns of Tables 9 and 10 (pp. 28-29). Most of the Healthy People 2000 objectives represent a single target for the whole population. These Tables allow comparisons of this single target to each sex-and-ethnicity group with data for San Francisco, to show how each part of the population is doing in relation to the national standard. In some cases HP2000 sets different objectives for some subgroups with higher rates; however, in keeping with our approach of adopting a single standard for the whole population – an approach that will be recognized as a national goal in Healthy People 2010 – we present only the objective set for the whole population.

Not all the leading causes of premature mortality have corresponding Healthy People 2000 objectives, and some have related objections that don't allow direct comparisons. Some of the HP2000 standards use crude rates, that is, rates per 100,000 people, regardless of age distribution. Since rates for virtually all causes vary by age group, such crude rates do not provide a good basis for inter-group comparisons. This is especially true for San Francisco, which has both an older population than the state or nation, and large ethnic group populations with very different age distributions and mortality rates. Age-adjusted rates which allow for comparisons across such groups, are therefore the only HP2000 objectives presented.

Factors contributing to the leading causes of death: Knowledge of the leading causes of premature deaths is not, by itself, sufficient to prevent the occurrence of disease and injury. Nevertheless, if we are to design cost-effective strategies to prevent or control disease and injury, we must first measure and rank the leading *causes* of disease and injury, identify the underlying *determinants* of these causes of disease and injury (Tables 5-7, pp. 23-25), calculate the *contribution* of these determinants to the leading causes of death, and finally assess the *distribution* of these determinants in our population. With these facts, the health model shown in Figure 3 (p. 12) can be used to guide, plan, and monitor improvements in population health, making the best use of this disease and injury mortality data. Disease and injury are shown in the middle of the diagram, along with health and medical care; well-being and prosperity are shown at the bottom, and environmental influences at the top. The more we can understand how the middle and bottom sections of the model are influenced by the factors at the middle and top of the model, the better we will be able to develop policies that protect, preserve, and promote population health and well-being.

The model in Figure 3 shows that exposures to many determinants of disease and injury are influenced by the social environment. Changes in social conditions may have many beneficial effects on community health. For example, laws to reduce exposures to second-hand tobacco smoke, to limit cigarette advertising, or to permit the provision of clean needles and syringes to injection drug users, not only saves lives, they improve health and quality of life. Further, social conditions affect individuals' access to educational, social, and health resources. Increasing access to such resources could provide substantial benefits to the health of many individuals, especially to those who have the least access due to socioeconomic disadvantage.

Indeed, socioeconomic conditions, especially poverty, adversely influence many health outcomes, including almost all of the leading causes of death. Other aspects of the social environment also have wide-ranging influences on many health outcomes, such as the availability of social support. Furthermore, individuals who experience substantial stress in their social environment are also at increased risk of poor health. Thus, improving these social conditions, especially for the most vulnerable segment of the population, could be expected to provide the most widespread improvement in health and

well-being. Thus, efforts to improve community health should not to be limited to clinical or behavioral interventions, but should also aim for long-term change in the social and physical environments in which we live. We hope that the results presented in this report will help diverse communities, separately and together, to set priorities and advocate for changes that improve their health.

This report links causes of death responsible for the greatest burden of premature mortality in San Francisco to nine well-established determinants that contribute to mortality from multiple specific causes of death. The prevention attribution matrices (Tables 5-7, pp. 23-25) are our evidenced-based attempt to make these critical linkages, to guide new prevention efforts, and to target monitoring of expected outcomes. The prevention attribution matrix for the City's overall leading causes of premature mortality can indicate the extent to which prevention efforts directed at reducing exposure to the determinants covered in this report could affect the burden of mortality from the leading causes for the City as a whole or for communities where prevention might be targeted. Primary prevention strategies—aimed at preventing the occurrence of disease or injury in the first place—that accomplish long-lasting change in the distribution of risk factors (e.g., smoking prevalence) can continue to improve population health generations into the future. The analysis provided by this report helps provide a basis to effectively protect, preserve, and promote community health—to invest in targeted strategies that improve population health today and into the future.

3.2 Burden of AIDS deaths

For the period 1990 through 1995, 6 832 San Francisco residents died from AIDS, representing 300 755 standard expected years of life lost (Table 16). Male deaths from AIDS numbered 6 650 and represented 292 636 standard expected years of life lost; this was more than all the expected years of life lost for females from all causes. Female deaths from AIDS numbered 182 and represented 8 119 standard expected years of life lost (Table 16).

For males, AIDS was the first leading cause of death overall, and the first leading cause of death for ages 25-44 and ages 45-64. AIDS was the first leading cause of death for White, African American, Latino, and Native American males, and the second leading cause of death for Filipino males. For females, AIDS was the sixth leading cause of death overall, and the first leading cause of death for the ages 25-44. AIDS was the second leading cause of death for African American and Latino females.

In every San Francisco neighborhood, AIDS was the first or second leading cause of male deaths (Table 18). For females, AIDS was the second leading cause of death in ZIP code 94102 (Hayes Valley - Tenderloin - North of Market), and the fourth leading cause of death in the ZIP codes 94115 (Western Addition - Japantown), 94124 (Bayview - Hunters Point), and 94134 (Visitación Valley - Sunnyvale).

The trends in AIDS mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 9. For males, Whites had the highest mortality rates that peaked during the 1990-1992 period and have declined since. African American males had the second highest mortality rates which climbed during this period and, for the final period 1993-1995, the rate was not statistically different compared to the rate for Whites. Latino males had the third highest AIDS mortality rates which, similar to Whites, peaked in the 1990-1992 period. Asian/other males had the lowest AIDS mortality rates, but the rates continually increased over the period. For females, African Americans had the highest AIDS mortality rates and were the only female ethnic group with a significant increasing trend during this period. Age-adjusted AIDS mortality rates by sex and ethnicity for the combined period 1990 through 1995 are shown in Table 17.

Table 16: Burden of AIDS Deaths by Age and Sex, and by Ethnicity and Sex, 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	300 755	6 832	1	292 636	6 650	1	8 119	182	6
By Age									
Ages <1	248	3	8	82	1	8	165	2	6
Ages 1-4	246	3	5	82	1	5	164	2	2
Ages 5-14	297	4	5	224	3	5	73	1	5
Ages 15-24	1 892	30	4	1 829	29	4	63	1	*
Ages 25-44	224 627	4 640	1	218 629	4 520	1	5 998	120	1
Ages 45-64	71 666	2 031	1	70 232	1 989	1	1 435	42	10
Ages 65+	1 779	97	*	1 557	84	15	222	13	*
By Race/ethnicity									
White	228 859	5 224	1	226 038	5 162	1	2 821	62	12
African American	31 196	713	1	27 390	626	1	3 806	87	2
Latino	30 385	663	1	29 293	641	1	1 092	22	2
Asian/P.I.	4 770	107	4	4 663	104	3	107	3	*
Filipino	2 686	60	2	2 462	54	2	225	6	10
Native American	1 336	28	1	1,336	28	1	0	0	*
Other	1 523	37	†	1 454	35	†	69	2	†

*Not in leading 20 causes

†Not ranked

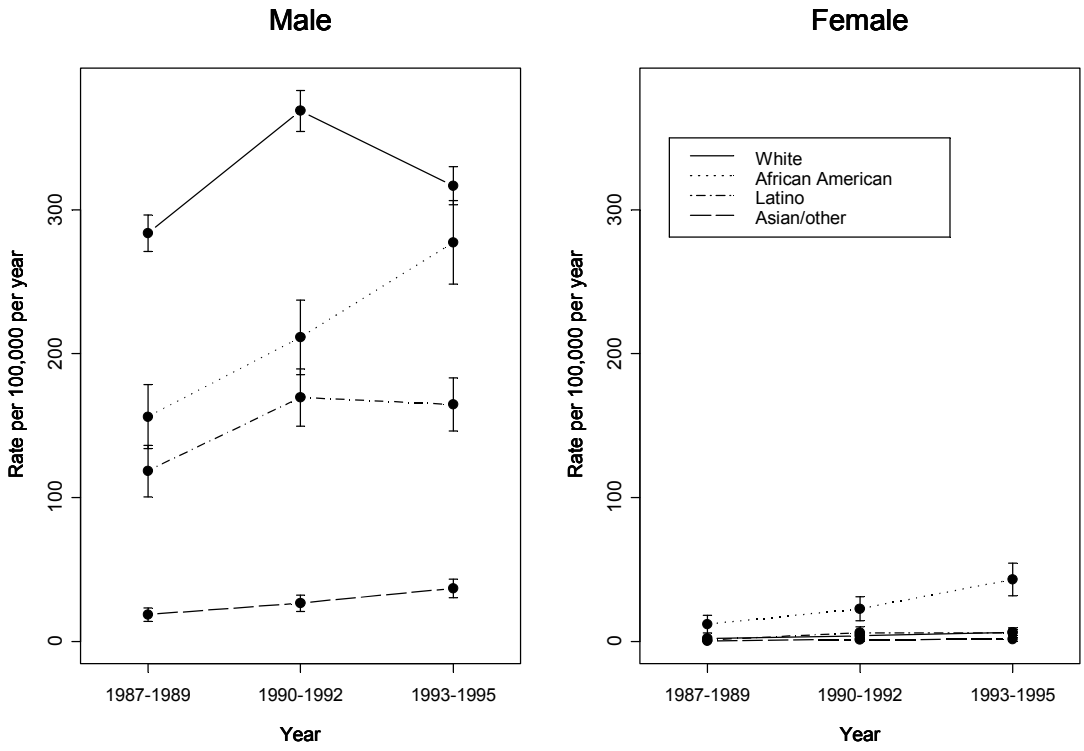


Figure 9: AIDS Mortality Rates by Sex and Ethnicity 1987-1995

For the period 1987 through 1995, age-adjusted AIDS mortality rates trends by sex and ethnicity are shown in Figure 9. To evaluate the relative differences in AIDS mortality rates by ethnic group, the age-adjusted mortality rates and 95% confidence intervals for the combined period 1990 through 1995 are shown in Table 17. (See also Figures 6 and 7, pp. 28-29)

Table 17: AIDS Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	234.5	(228.8, 240.3)		6.9	(5.9, 7.9)	
White	341.3	(331.7, 350.9)	1.00	5.2	(3.7, 6.6)	1.00
African American	245.6	(226.0, 265.1)	0.72	33.2	(26.1, 40.3)	6.42
Latino	167.1	(153.5, 180.6)	0.49	6.1	(26.1, 40.3)	1.17
Asian/other	32.0	(27.7, 36.2)	0.09	1.3	(0.5, 2.2)	0.26

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

Table 18: Rank by Neighborhood of AIDS as Cause of Premature Death

ZIP code	Neighborhood	Male	Female
94102	Hayes Valley / Tenderloin / North of Market	1	2
94103	South of Market	1	12
94107	Potrero Hill	1	9
94108	Chinatown	1	16
94109	Polk/Russian Hill	1	12
94110	Inner Mission / Bernal Heights	1	12
94104, -05, -11	Rincon / Telegraph Hill / Embarcadero	1	*
94112	Ingleside-Excelsior / Crocker-Amazon	2	13
94114	Castro, Noe Valley	1	6
94115	Western Addition / Japantown	1	4
94116	Parkside	2	10
94117	Haight-Ashbury	1	13
94118	Inner Richmond	1	*
94121	Outer Richmond	2	*
94122	Sunset	2	15
94123	Marina	1	*
94124	Bayview-Hunters Point	2	4
94127	St. Francis Wood, Miraloma / Seaside	1	*
94131	Twin Peaks-Glen Park	1	*
94132	Lake Merced	2	7
94133	North Beach / Chinatown	2	*
94134	Visitacion Valley / Sunnydale	2	4
99999	Unknown	1	7

*Not in leading 20 causes

In every San Francisco neighborhood, AIDS was the first or second leading cause of male deaths (Table 18).

3.2.1 Comments

San Francisco was one of the cities most seriously affected by the AIDS epidemic that developed throughout the 1980s. In the gay male community, infection levels were estimated to have reached over 45% in 1984 [58]. By 1995, it is estimated that over 20 000 members of the City's estimated 58 000 gay males had been diagnosed with AIDS [27]. However, San Francisco became a national leader in its response—in terms of surveillance, support and prevention services, as well as the provision of care.

This report, covering 1990 through 1995, spans the time at which AIDS diagnoses and deaths were at their highest levels, both the number of AIDS cases diagnosed and the number of AIDS deaths peaked in 1992 (at 3 093 cases diagnosed and 1 816 deaths) [48]. The incidence of both AIDS diagnoses and deaths has been declining since 1995 [48], and it is believed that the incidence of new AIDS cases and HIV infections may be leveling off [30, 25]. Because of improvements in treatment and care services, longevity with the HIV infection at all stages has improved, and the number of people living with HIV and AIDS in San Francisco has been increasing [48]. While in the coming years, AIDS may be expected to remain a significant cause of morbidity and premature death, it is likely that it will be less prominent than during the period 1990-1995.

3.3 Burden of tobacco consumption

Tobacco has played an important role in our national history, but an impressive body of scientific evidence shows that nicotine is addictive and lethal. Tobacco's role as a contributor to the leading causes of death is depicted in Tables 5-7. As can be seen in Table 19, tobacco contributes to premature death from an even wider array of diseases. This table, which links tobacco use to specific causes of death, is based on tobacco-attributable mortality for California as a whole [44]. These tobacco-related mortality attributions, which were applied to San Francisco mortality, 1990 through 1995, are similar to the mortality attributions obtained from national reports. Approximately 14% of deaths and 10% of SEYLL can be attributed to tobacco.

The pages that follow present an analysis of deaths from lung cancer, stroke, chronic obstructive pulmonary disease (COPD), and pneumonia. There are other risk factors for each of these diseases, especially for pneumonia, but tobacco is a major contributor to these four leading causes of premature death in San Francisco. Although ischemic heart disease is also an important consequence of tobacco use, it is reported elsewhere (Section 3.5, p. 3.5), a reflection not that tobacco is not an important contributor to this cause (it is), but of our hope that prevention activities as robust as those directed at tobacco use will become manifest for diet and physical inactivity.

Table 19: Number of Deaths and Expected Years of Life Lost Attributed to Tobacco Consumption by Cause, 1990-1995

	Total		Tobacco		
	Deaths	SEYLL	Attributable Fraction	Attributable Deaths	Attributable SEYLL
Ischemic heart disease	11 010	141 184	0.20	2 202	28 237
Lung cancer	2 455	45 351	0.82	2 013	37 188
Stroke	3 374	41 182	0.16	540	6 589
Pneumonia	2 303	27 634	0.25	576	6 909
COPD	1 391	18 894	0.80	1 113	15 115
Pancreatic cancer	470	7 205	0.25	120	1 800
Sudden Infant Death Syndrome	86	7 012	0.09	8	631
Oral cancers	204	4 419	0.75	153	3 314
Esophageal cancers	214	4 189	0.74	158	3 100
Asthma	150	3 473	0.22	33	764
Bladder cancer	180	2 412	0.40	72	965
Fires/burns	54	1 889	0.17	9	321
Tuberculosis	63	1 388	0.26	16	361
Subtotal	21 954	306 232		7 011	105 295
Total (all causes)	48 424	1 068 209		48 424	1 068 209
Proportion of all causes	0.45	0.29		0.14	0.10

SEYLL = Standard Expected Years of Life Lost, AF = Attributable Fraction

3.3.1 Lung Cancer Deaths

For the six-year period 1990 through 1995, 2 455 San Francisco residents died from lung cancer, an average of 409 deaths per year, and representing 45 351 standard expected years of life lost (Table 20). There 1 439 male deaths, representing 28 046 standard expected years of life lost, and 1 016 female deaths, representing 17 305 standard expected years of life lost. Average years of life lost per death was 19 years for males and 17 years for females, indicating that death from lung cancer occurs at relatively older ages.

For males, lung cancer was the third leading cause of death overall and for ages 45 to 64 years, and the second leading cause of death for ages 65 years or older. It was the second leading cause of death for Asian males, fourth for Filipinos, and fifth for Whites and African Americans. For females, lung cancer was the third leading cause of death overall and for the ages groups 45 to 64 years and 65 years or older. Lung cancer was the second leading cause of death for White females, third among Asians, and fourth among African Americans.

Lung cancer was the third or fourth leading cause of male deaths in 16 of 22 neighborhoods (Table 47, p. 83). For females, lung cancer was the second leading cause of death in ZIP codes 94114 (Castro, Noe Valley), 94127 (St. Francis Wood, Miraloma / Seaside), and 94131 (Twin Peaks-Glen Park); it was ranked lower than 5th in only two ZIP codes (Table 48, p. 84).

The trends in lung cancer mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 10. For males, African Americans had the highest mortality rates, followed by Whites, Asians, and Latinos with the lowest rates. Rates declined (not significantly) among all male ethnic groups during the periods studied, with larger declines in the groups with higher rates. For females, African Americans had the highest lung cancer mortality rates, followed by Whites. These varied slightly over time. Latinos started with the lowest lung cancer mortality rates, significantly below Asian/Pacific Islanders, but these two groups' rates converged over the periods studied. No group showed a significant change in mortality.

Table 20: Burden of Lung Cancer Deaths by Age and Sex, and by Ethnicity and Sex, 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	45 351	2 455	3	28 046	1 439	3	17 305	1 016	3
By Age									
Ages <1	0	0	*	0	0	*	0	0	*
Ages 1-4	0	0	*	0	0	*	0	0	*
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	0	0	*	0	0	*	0	0	*
Ages 25-44	2 317	51	15	1 679	37	15	639	14	14
Ages 45-64	19 440	663	3	12 937	442	3	6 502	221	3
Ages 65+	23 594	1 739	3	13 430	959	2	10 164	780	3
By Race/ethnicity									
White	26 731	1 475	3	15 836	805	5	10 895	670	2
African American	7 646	364	4	4 868	233	5	2 777	131	4
Latino	1 491	86	13	872	50	14	619	36	8
Asian/P.I.	8 196	459	3	5 447	294	2	2 749	165	3
Filipino	1 053	60	4	851	49	4	202	11	13
Native American	88	3	10	59	2	10	29	1	7
Other	145	8	†	113	6	†	33	2	†

* Not in leading 20 causes

† Not ranked.

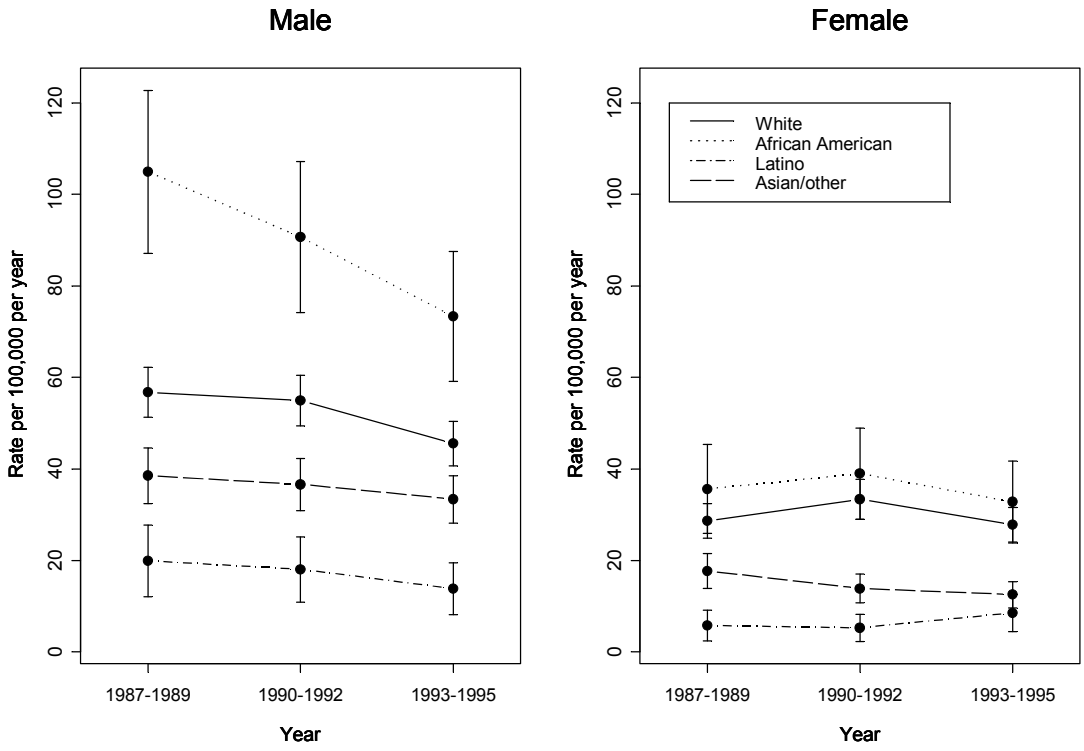


Figure 10: Lung Cancer Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted lung cancer mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and the rate ratios of each group compared to White rates, are shown in Table 21. (See also Figures 6 and 7, pp. 28-29)

Table 21: Lung Cancer Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	44.9	(42.5, 47.4)		22.6	(21.0, 24.2)	
White	50.1	(46.4, 53.8)	1.00	30.5	(27.7, 33.4)	1.00
African American	82.2	(71.3, 93.1)	1.64	36.0	(29.3, 42.7)	1.18
Latino	15.8	(11.3, 20.4)	0.32	6.9	(4.4, 9.5)	0.23
Asian/other	34.8	(31.0, 38.7)	0.70	13.1	(11.0, 15.2)	0.43

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.3.2 Stroke Deaths

For the period 1990 through 1995, 3 374 San Francisco residents died from stroke, an average of 562 a year, and representing 41 182 standard expected years of life lost (Table 22). There were 1 345 male deaths, representing 19 838 standard years of life lost, and 2 029 female deaths, representing 21 343 standard years of life lost. Average years of life lost per death was 15 years for males and 11 for females, indicating that death from stroke occurs at relatively older ages.

For males, stroke was the seventh leading cause of death overall, and the third leading cause of death for ages 65 or older. Stroke was the third leading cause of death for Filipino males, and the fourth leading cause of death for Asian males. For females, stroke was the second leading cause of death overall, and the second leading cause of death for ages 65 or older. Stroke was the second leading cause of death for Asian and Filipino females, and third for Whites, African Americans and Latinos.

Stroke was the fourth leading cause of male deaths in nine ZIP codes (Table 47, p. 83): 94116 (Parkside), 94118 (Inner Richmond), 94121 (Outer Richmond), 94122 (Sunset), 94123 (Marina), 94127 (St. Francis Wood, Miraloma / Seaside), 94132 (Lake Merced), 94133 (North Beach / Chinatown), and 94134 (Visitación Valley / Sunnydale). It was as low as the 11th leading cause, in three ZIP codes. Stroke was the second or third leading cause of female deaths in all but three San Francisco neighborhoods, and no lower than sixth in any (Table 48, p. 84).

The trends in stroke mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 11. For males, African Americans had significantly higher stroke rates throughout the periods studied. Rates for all ethnic groups declined slightly (but not significantly) between the 1990-1992 and 1993-1995 periods. For females, African Americans had significantly higher stroke rates throughout the periods studied, and Latinos the lowest. Rates for all groups declined slightly (not significantly) between the 1987-1990 and 1990-1992 periods.

Table 22: Burden of Stroke Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	41 182	3 374	4	19 838	1 345	7	21 343	2 029	2
By Age									
Age <1	82	1	10	82	1	8	0	0	*
Ages 1-4	82	1	12	82	1	7	0	0	*
Ages 5-14	151	2	9	0	0	*	151	2	4
Ages 15-24	315	5	12	189	3	12	126	2	10
Ages 25-44	3 503	75	10	2 061	44	13	1 442	31	8
Ages 45-64	9 175	305	5	5 254	173	7	3 920	132	4
Ages 65+	27 873	2 984	2	12 169	1 122	3	15 704	1 862	2
By Race/ethnicity									
White	19 640	1 933	6	8 846	691	8	10 794	1 242	3
African American	7 176	403	6	3 436	166	6	3 740	237	3
Latino	2 861	196	7	1 776	91	9	1 085	105	3
Asian/P.I.	8 852	669	2	4 247	297	4	4 605	372	2
Filipino	2 371	161	3	1 299	91	3	1 072	70	2
Native American	137	4	6	103	3	8	34	1	6
Other	145	8	†	132	6	†	13	2	†

* Not in leading 20 causes

† Not ranked.

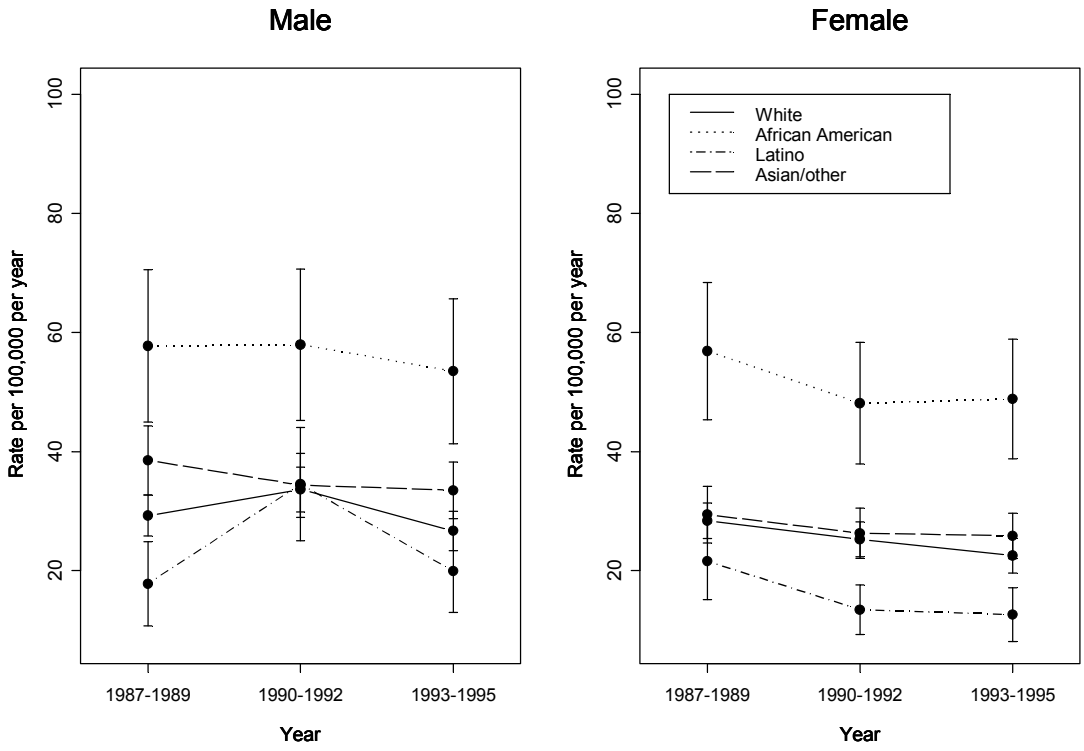


Figure 11: Stroke Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted stroke mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to White rates, are shown in Table 23. (See also Figures 6 and 7, pp. 28-29)

Table 23: Stroke Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	33.7	(31.7, 35.6)		26.1	(24.6, 27.6)	
White	30.3	(27.7, 32.8)	1.00	23.9	(21.9, 25.9)	1.00
African American	55.7	(46.9, 64.5)	1.84	48.6	(41.4, 55.8)	2.03
Latino	26.7	(20.9, 32.5)	0.88	12.9	(9.9, 16.0)	0.54
Asian/other	33.9	(30.3, 37.5)	1.12	26.1	(23.3, 28.9)	1.09

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.3.3 COPD Deaths

For the period 1990 through 1995, 1 391 San Francisco residents died from chronic obstructive pulmonary disease (COPD), an average of 232 deaths per year and representing a total of 18 894 standard expected years of life lost (Table 24). There were 769 male deaths, representing 11 072 standard expected years of life lost, and 622 female deaths, representing 7 823 standard expected years of life lost. Average years of life lost per death was 14 years for males and 13 years for females, indicating that most deaths from COPD occurs at older ages.

COPD was the fifth leading cause for ages 65 or older (overall and for both sexes). For males, COPD was the eleventh leading cause of death overall, and COPD was the eighth leading cause of death for Asian males, and the ninth for Filipino males. For females, COPD was the eighth leading cause of death overall. COPD was the sixth leading cause of death for White females.

COPD was the fifth leading cause of male deaths in ZIP code 94133 (North Beach / Chinatown), and the sixth leading cause of male deaths in ZIP codes 94108 (Chinatown) and 94118 (Inner Richmond), and it was among the top ten causes in three others (Table 47, p. 83). For females, COPD was the fifth leading cause of death in ZIP code 94122 (Sunset), and the sixth leading cause of female deaths in ZIP codes 94115 (Western Addition / Japantown), 94116 (Parkside), 94117 (Haight-Ashbury), 94121 (Outer Richmond), 94123 (Marina), and 94131 (Twin Peaks-Glen Park) (Table 48, p. 84).

The trends in COPD mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 12. For males, African Americans and Whites had the highest COPD mortality rates, but the rate for all ethnicities declined (none significantly) from 1990-1992 through 1993-1995. Rates for Whites and African Americans also declined from the previous period (1987-1989). For females, Whites had the highest COPD mortality rates, and Latino females had the lowest rates, throughout. There were no noticeable trends evident over the time period.

Table 24: Burden of COPD Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	18 894	1 391	9	11 072	769	11	7823	622	8
By Age									
Age <1	0	0	*	0	0	*	0	0	*
Ages 1-4	164	2	8	0	0	*	164	2	3
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	0	0	*	0	0	*	0	0	*
Ages 25-44	281	6	*	189	4	*	92	2	*
Ages 45-64	4 365	156	*	2 959	104	11	1 405	52	12
Ages 65+	14 086	1 222	5	7 924	658	5	6 162	564	5
By Race/ethnicity									
White	12 123	931	9	6 430	460	10	5 693	471	6
African American	2 325	127	16	1 383	79	16	942	48	13
Latino	439	37	*	243	21	*	196	16	*
Asian/P.I.	3 175	235	10	2 419	168	8	756	67	13
Filipino	607	47	12	441	32	9	165	15	17
Native American	9	1	18	9	1	16	0	0	*
Other	217	13	†	146	8	†	71	5	†

* Not in leading 20 causes

† Not ranked.

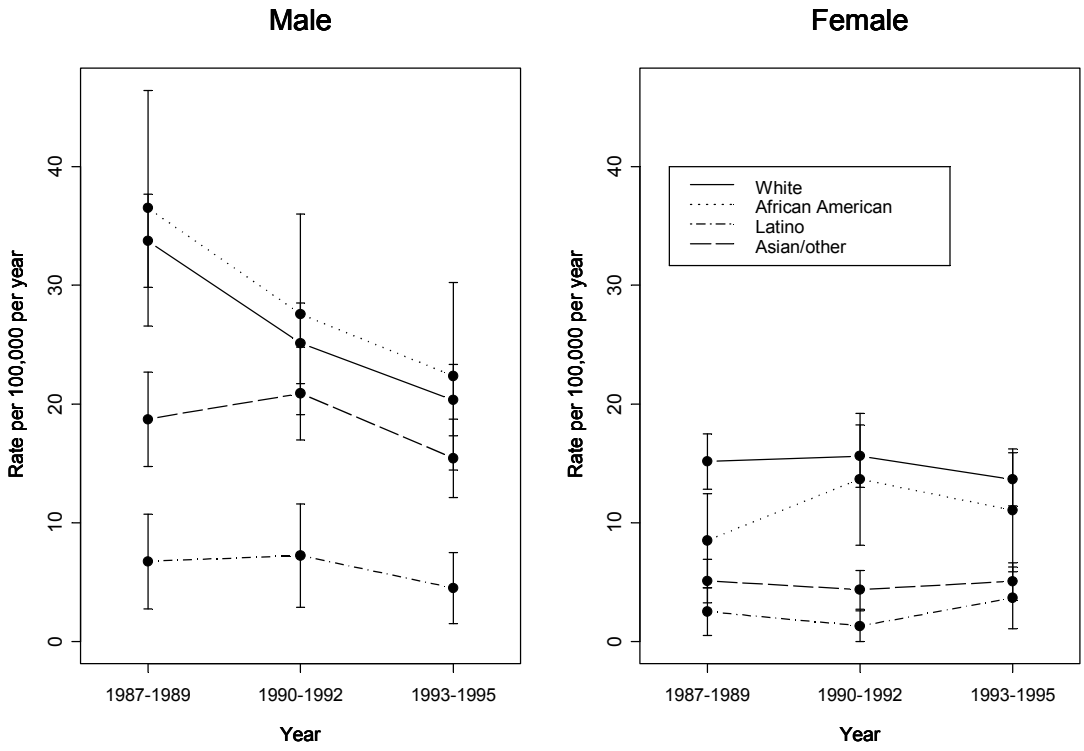


Figure 12: COPD Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted COPD mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to White rates, are shown in Table 25. (See also Figures 6 and 7, pp. 28-29)

Table 25: COPD Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	20.0	(18.5, 21.5)		10.1	(9.2, 11.1)	
White	22.7	(20.5, 25.0)	1.00	14.6	(12.9, 16.3)	1.00
African American	25.2	(19.3, 31.0)	1.11	12.3	(8.5, 16.0)	0.84
Latino	5.8	(3.2, 8.4)	0.26	2.5	(1.1, 4.0)	0.17
Asian/other	18.0	(15.5, 20.6)	0.79	4.7	(3.6, 5.8)	0.32

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.3.4 Pneumonia Deaths

For the period 1990 through 1995, 2 303 San Francisco residents died from pneumonia, an average of 384 per year and representing 27 634 standard expected years of life lost (Table 26). There were 1 109 male deaths, representing 17 127 standard expected years of life lost, and 1 194 female deaths, representing 10 507 standard expected years of life lost. Average years of life lost per death was 15 years for males and 9 years for females, indicating that most pneumonia deaths occurred at older ages. It was the fourth leading cause of death for ages 65 years or older, overall and for both sexes.

For males, pneumonia was the ninth leading cause of death. It was the seventh leading cause of death for White and African American males, and the eighth leading cause of death for Filipino males. For females, pneumonia was the fifth leading cause of death overall. Among White, Asian/other, and Filipino females it was the fifth leading cause of death.

Pneumonia was the fifth leading cause of male deaths in ZIP code 94131 (Twin Peaks-Glenn Park), and the sixth leading cause of male deaths in ZIP codes 94109 (Polk / Russian Hill), 94121 (Outer Richmond), 94123 (Marina), 94132 (Lake Merced), and 94133 (North Beach / Chinatown); it was in the top ten in all but two neighborhoods (Table 47, p. 83). For females, pneumonia was the fourth leading cause of death in ZIP code 94108 (Chinatown), and the fifth leading cause of death in ZIP codes 94109 (Polk / Russian Hill), 94112 (Ingleside-Excelsior / Crocker-Amazon), 94114 (Castro, Noe Valley), 94115 (Western Addition / Japantown), 94116 (Parkside), 94118 (Inner Richmond), 94123 (Marina), 94127 (St. Francis Wood, Miraloma / Seaside), and 94133 (North Beach / Chinatown); it was in the top ten in all but two neighborhoods (Table 48, p. 84).

The trends in pneumonia mortality rates for the period 1987 through 1995 are displayed in Figure 13. For males, African Americans and Whites had the highest mortality rates during the 1987-1989 period, but the rates for African American males climbed, becoming significantly greater than Asians and Latinos during subsequent periods. For females, African Americans had the highest pneumonia mortality rates during all of the period studied, significantly higher than the other ethnic groups in 1987-1989 but not in either period since.

Table 26: Burden of Pneumonia Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	27 634	2 303	8	17 127	1 109	9	10 507	1 194	5
By Age									
Age <1	660	8	5	330	4	5	330	4	5
Ages 1-4	164	2	7	164	2	5	0	0	*
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	257	4	13	126	2	13	131	2	7
Ages 25-44	4 549	94	9	3 804	79	9	745	15	13
Ages 45-64	5 557	178	10	4 330	136	9	1 226	42	14
Ages 65+	16 447	2 017	4	8 373	886	4	8 074	1 131	4
By Race/ethnicity									
White	16 370	1 498	7	10 096	670	7	6 274	828	5
African American	4 159	205	7	2 736	119	7	1 423	86	9
Latino	1 972	122	10	1 341	62	10	631	60	7
Asian/P.I.	4 124	395	5	2 284	203	9	1 840	192	5
Filipino	769	71	8	443	45	8	327	26	5
Native American	12	1	17	12	1	15	0	0	*
Other	227	11	†	214	9	†	12	2	†

* Not in leading 20 causes

† Not ranked.

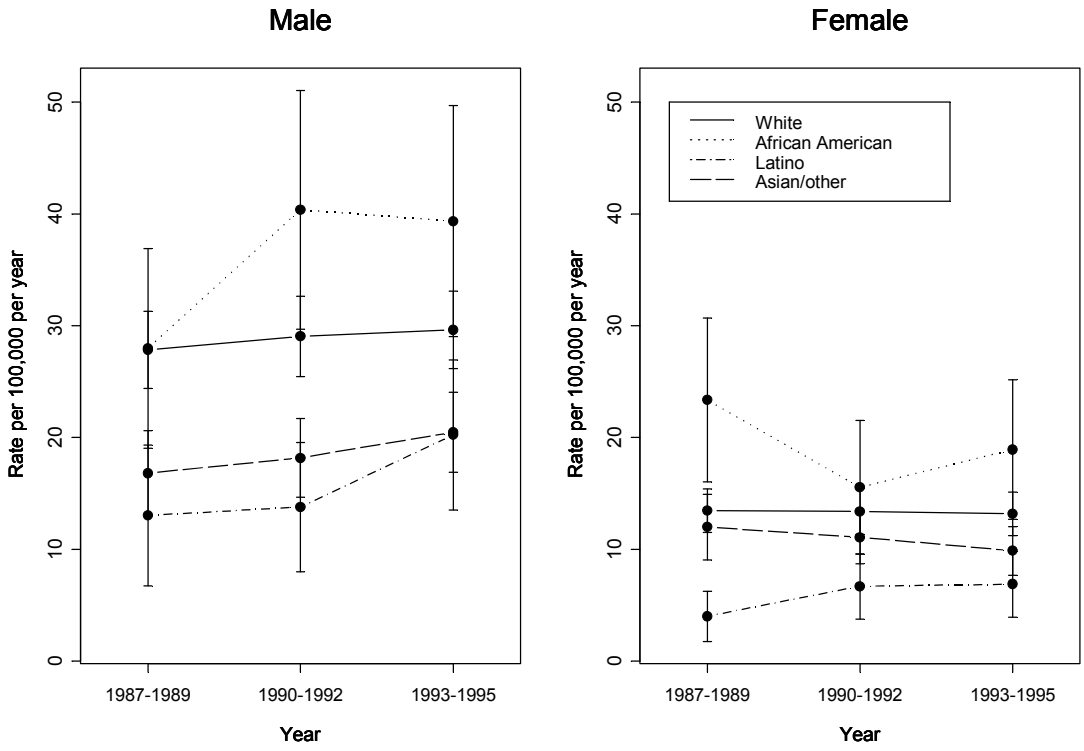


Figure 13: Pneumonia Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted pneumonia mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to White rates, are shown in Table 27. (See also Figures 6 and 7, pp. 28-29)

Table 27: Pneumonia Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	26.6	(24.9, 28.3)		12.4	(11.4, 13.3)	
White	29.4	(26.8, 31.9)	1.00	13.3	(11.9, 14.8)	1.00
African American	40.0	(32.6, 47.5)	1.36	17.2	(12.9, 21.5)	1.29
Latino	17.2	(12.7, 21.7)	0.59	6.8	(4.7, 8.9)	0.51
Asian/other	19.3	(16.8, 21.9)	0.66	10.3	(8.7, 11.9)	0.78

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.3.5 Comments for Tobacco

Tobacco is the leading preventable cause of death in the United States, accounting for an estimated 400,000 deaths per year [35]. Smoking is associated with many of the leading causes of death in San Francisco, as shown in Table 19. Most smoking-related deaths occur after many years of exposure, but recent research has shown that smoking during pregnancy is an important risk for sudden infant death syndrome [2]. The increase in smoking among women during recent decades is now becoming evident in mortality data. In 1986, lung cancer surpassed breast cancer as the leading cause of cancer death among women in the United States [16]; this trend is also apparent in San Francisco.

Not depicted in Table 19 is the way in which smoking interacts with common diseases, such as diabetes and hypertension, to greatly increase their risk of fatal outcomes, nor does it show how smoking can contribute to high cholesterol. Diabetes, hypertension, and high cholesterol are major risks for ischemic heart disease and stroke, which are leading causes of death in San Francisco.

More than 80% of lung cancer deaths can be attributed to tobacco. By studying the relative importance of lung cancer deaths among the various the various ethnic groups and neighborhoods of San Francisco, one can gain a rough idea of how the burden of smoking is felt in various segments of the population of the City. In some cases, studies in the medical literature support these associations. For example, a survey of Latino women in San Francisco [41] found that they smoke far less than their White counterparts, which may explain their lower lung cancer mortality rates.

3.4 Burden of alcohol and illicit drug consumption

Alcohol and illicit drugs contribute to many causes of premature death. The specific causes that are grouped in this section (Drug Poisoning, Suicide, Homicide, Chronic Liver Disease, and Motor Vehicle-Traffic) are the leading causes of premature death in San Francisco for which a significant portion can be attributed to alcohol and illicit drugs. There are, of course, other risks for these causes of premature death, and there are other causes of premature death attributable to alcohol and illicit drugs (see Tables 5-7). Nevertheless, the grouping of these leading causes of death in this single section underscores the potential benefits of prevention efforts directed at reducing the burden of premature mortality attributable to alcohol and illicit drugs.

Table 28 applies alcohol-attributable mortality fractions that were previously calculated for California as a whole [42] to deaths and SEYLL for San Francisco for 1990 through 1995. These attributable mortality fractions are similar to those that have been reported nationally [12]. This table illustrates the large burden of alcohol-attributable mortality that can be assigned to the leading causes of death that are analyzed on the pages that follow, as well as to other causes of death.

Table 28: Number of Deaths and Expected Years of Life Lost Attributed to Alcohol Consumption by Cause, 1990-1995

	Total		Alcohol Attributable	Attributable	Attributable
	Deaths	SEYLL	Fraction	Deaths	SEYLL
Stroke	3 374	41 182	0.07	236	2 677
Poisonings	760	34 128	0.35	266	11 945
Suicide	845	32 729	0.28	237	9 164
Homicide	557	28 571	0.46	256	13 143
Pneumonia	2 303	27 634	0.05	115	1 382
Liver cirrhosis	771	23 871	0.90	694	21 484
Motor vehicle-Traffic	438	18 444	0.42	184	7 746
Alcohol use (psych)	384	13 106	100.00	384	13 106
Diabetes mellitus	633	10 910	0.05	32	546
Liver cancer	410	8 468	0.15	62	1 270
Falls	323	7 445	0.35	113	2 606
Stomach cancer	375	6 339	0.20	75	1268
Oral cancers	204	4 419	0.50	102	2,210
Esophageal cancers	214	4,189	0.50	107	2 095
Drownings	71	3 164	0.38	27	1 202
Hypertension	167	2 064	0.08	13	157
Fires/burns	54	1 889	0.45	24	850
Tuberculosis	63	1 388	0.25	16	347
Subtotal	11 946	269 940		2 925	93 196
Total (all causes)	48 424	1 068 209		48 424	1 068 209
Proportion of all causes	0.25	0.25		0.06	0.09

SEYLL = Standard Expected Years of Life Lost, AF = Attributable Fraction

3.4.1 Drug Poisoning Deaths

For the period 1990 through 1995, 735 San Francisco residents died from unintentional drug poisoning (primarily from illicit drug overdose), an average of 123 deaths per year, and representing 33 023 standard expected years of life lost (Table 29). There were 588 male deaths, representing 26 636 standard expected years of life lost, and 147 female deaths representing 6 387 standard expected years of life lost. Average years of life lost per death was 45 years for males and 43 years for females, indicating that death from drug poisoning occurred at relatively younger ages.

For males, unintentional drug poisoning was the fourth leading cause of premature mortality overall, and the second leading cause for ages 25 to 44. It was the third leading cause for Native Americans (six deaths), and the fourth leading cause of White, African American, and Latino mortality. For females, unintentional drug poisoning was the tenth leading cause of mortality overall, and the second leading cause for ages 25 to 44. It was the sixth leading cause for African Americans, and ninth for Whites.

Unintentional drug poisoning was the third leading cause of male deaths in ZIP codes 94102 (Hayes Valley / Tenderloin / N. of Market), 94103 (South of Market), and 94107 (Potrero Hill), and the fourth leading cause of male deaths in ZIP codes 94110 (Inner Mission / Bernal Heights) and 94117 (Haight-Ashbury); it was among the top ten causes in 16 neighborhoods (Table 47, p. 83). For females, unintentional drug poisoning was second leading cause of death in ZIP codes 94103 (South of Market) and 94107 (Potrero Hill), and the third leading cause of death in ZIP code 94102 (Hayes Valley / Tenderloin / N. of Market); it was in the top ten causes in eight neighborhoods, but in another six, was not even in the top 20 (Table 48, p. 48).

The trends in unintentional drug poisoning mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 14. For males, African Americans had the highest mortality rates. White and Latino males had the second highest mortality rates; the White rate climbed significantly, while that of Latino males declined slightly. Asian/other males had the lowest rates. For females, African Americans had the highest unintentional drug poisoning mortality rates, Whites had the second highest rates, and Latino and Asian/other rates were the lowest.

Table 29: Burden of Drug Poisoning Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	33 023	735	5	26 636	588	4	6 387	147	10
By Age									
Age <1	0	0	*	0	0	*	0	0	*
Ages 1-4	0	0	*	0	0	*	0	0	*
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	1 398	22	5	1 009	16	5	388	6	4
Ages 25-44	25 035	506	2	20 538	415	2	4 497	91	2
Ages 45-64	6 208	177	9	4 848	138	8	1 360	39	*
Ages 65+	382	22	*	241	13	*	142	9	*
By Race/ethnicity									
White	20 869	458	5	17 167	371	4	3 702	87	9
African American	7 348	170	5	5 239	123	4	2 109	47	6
Latino	3 628	79	4	3 224	70	4	403	9	*
Asian/P.I.	738	16	*	680	15	*	58	1	*
Filipino	169	4	*	126	3	*	44	1	*
Native American	270	8	3	199	6	3	70	2	2
Other	0	0	†	0	0	†	0	0	†

* Not in leading 20 causes

† Not ranked.

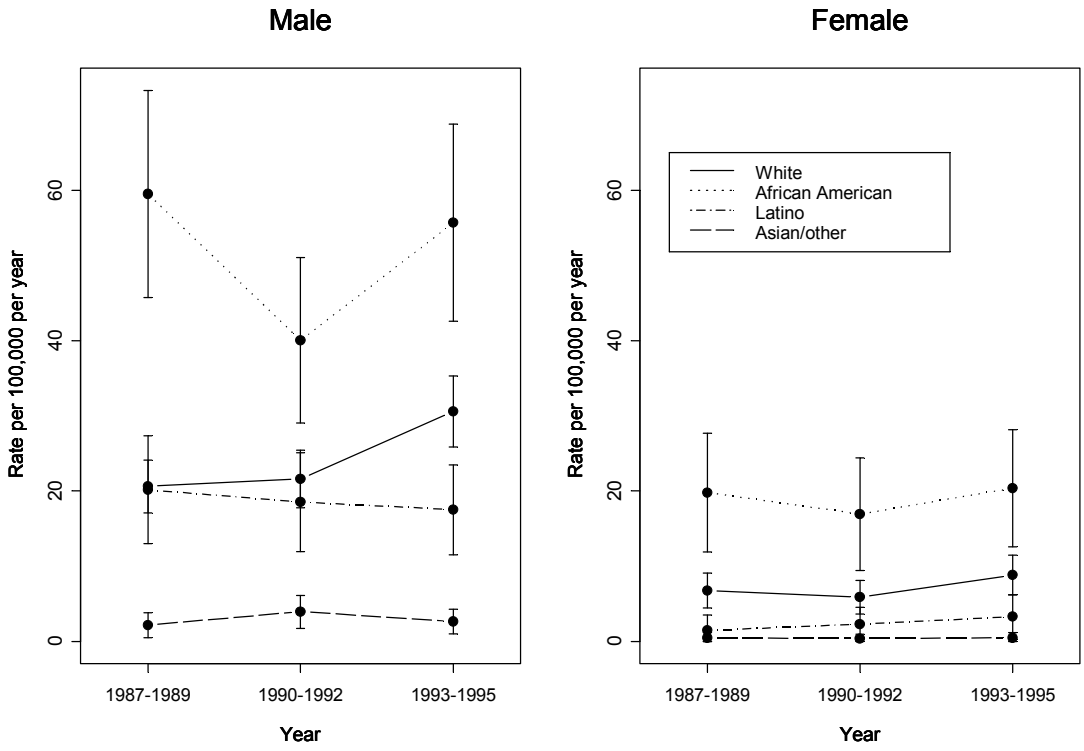


Figure 14: Drug Poisoning Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted unintentional drug poisoning mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to the White rate, are shown in Table 30. (See also Figures 6 and 7, pp. 28-29)

Table 30: Drug Poisoning Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	20.7	(19.0, 22.4)		5.7	(4.7, 6.7)	
White	26.2	(23.2, 29.2)	1.00	7.5	(5.7, 9.3)	1.00
African American	48.3	(39.7, 56.9)	1.84	18.6	(13.2, 24.0)	2.48
Latino	18.0	(13.6, 22.4)	0.69	2.8	(0.9, 4.6)	0.37
Asian/other	3.3	(1.9, 4.6)	0.12	0.4	(0.0, 0.9)	0.06

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.4.2 Suicide Deaths

For the period 1990 through 1995, 845 San Francisco residents died from suicide, an average of 141 per year, and representing 32 729 standard expected years of life lost (Table 31). There were 645 male deaths, representing 25 922 standard expected years of life lost, and 200 female deaths representing 6 807 standard expected years of life lost. Average years of life lost per death was 40 for males and 34 for females, indicating that death from suicide occurred at relatively younger ages.

For males, suicide was the fifth leading cause of death overall, second for ages 15 to 24, and third for ages 25 to 44. It was the third leading cause for White males, and sixth and seventh for Latinos and Asian/Pacific Islanders (non-Filipino), respectively. For females, suicide was the ninth leading cause of death overall, and the seventh leading cause of death for White and Asian/other.

Among males, suicide was the third leading cause of death in ZIP codes 94108 (Chinatown), 94109 (Polk / Russian Hill), 94114 (Castro, Noe Valley), 94117 (Haight-Ashbury), and 94131 (Twin Peaks-Glen Park); it was among the nine leading causes in all but one neighborhood (where it was 11th). (Table 47, p. 83). For females, suicide was the third leading cause death in ZIP codes 94104, 94105, 94111 (which encompass the Rincon / Telegraph Hill / Embarcadero neighborhoods), and was among the ten leading causes of death in more than half of all San Francisco neighborhoods (Table 48, p. 84).

The trends in suicide mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 15. For males,Whites had significantly higher mortality rates, which increased slightly over the period. African American males had the second highest rates, which also slightly increased. Asians, with the lowest rates, and Latinos showed little variation over time. Among females, Whites had the highest rates, which declined slightly to the a level where they were not significantly higher in period 1993-1995 than African American and Asian females.

Table 31: Burden of Suicide Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	32 729	845	6	25 922	645	5	6 807	200	9
By Age									
Age <1	0	0	*	0	0	*	0	0	*
Ages 1-4	0	0	*	0	0	*	0	0	*
Ages 5-14	73	1	11	73	1	9	0	0	*
Ages 15-24	5 067	79	2	4 164	65	2	903	14	2
Ages 25-44	17 534	350	3	14 484	289	3	3 050	61	3
Ages 45-64	7 809	237	6	5 709	173	5	2 100	64	6
Ages 65+	2 246	171	18	1 491	111	15	754	60	*
By Race/ethnicity									
White	22 386	601	4	18 032	469	3	4 355	132	7
African American	2 965	64	12	2 396	51	10	569	13	20
Latino	2 849	58	8	2 568	53	6	281	5	*
Asian/P.I.	4 027	111	6	2 630	66	7	1 398	45	7
Filipino	355	8	17	242	5	16	113	3	*
Native American	0	0	*	0	0	*	0	0	*
Other	146	3	†	53	1	†	92	2	†

* Not in leading 20 causes

† Not ranked.

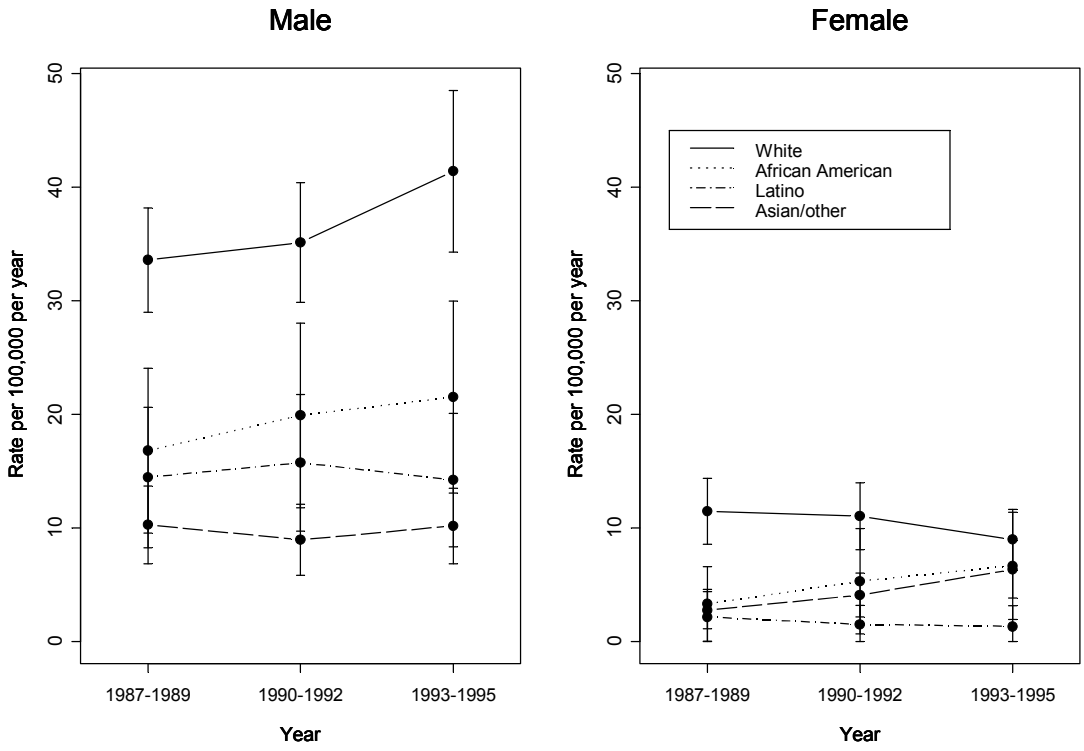


Figure 15: Suicide Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted suicide mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to the White rate, are shown in Table 32. (See also Figures 6 and 7, pp. 28-29)

Table 32: Suicide Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	24.2	(22.2, 26.2)		7.1	(6.0, 8.1)	
White	37.5	(33.3, 41.7)	1.00	10.2	(8.2, 12.2)	1.00
African American	20.7	(14.8, 26.5)	0.55	6.0	(2.7, 9.3)	0.59
Latino	15.0	(10.7, 19.2)	0.40	1.4	(0.1, 2.6)	0.13
Asian/other	9.6	(7.3, 11.8)	0.25	5.2	(3.6, 6.8)	0.51

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.4.3 Homicide Deaths

For the period 1990 through 1995, 557 San Francisco residents died from homicide, an average of 93 per year, and representing 28 571 standard expected years of life lost (Table 33). There were 456 male deaths, representing 23 913 standard expected years of life lost, and 101 female deaths representing 4 658 standard expected years of life lost. Average years of life lost per death was 52 for males and 46 for females, indicating that death from homicide occurred at younger ages.

For males, homicide was the seventh leading cause of death overall; it was the first leading cause of death for ages 15 to 24 (143 deaths), and the fourth leading cause for ages 25 to 44 (213 deaths). It was the second and third leading cause for Latino and African American males, respectively. For females, homicide was the sixth leading cause of death overall; it was the third leading cause of death for ages 15 to 24 (14 deaths), and the fifth leading cause for ages 25 to 44 (51 deaths). It was the seventh and ninth leading cause for African American and Latino females, respectively, and it was not among the top 20 in the other groups.

Among males, homicide was among the ten leading causes of deaths in 15 out of 22 San Francisco neighborhoods. Homicide was the leading cause of premature male deaths in ZIP code 94124 (Bayview-Hunters Point), the third leading cause in ZIP codes 94110 (Inner Mission / Bernal Heights), 94112 (Ingleside- Excelsior / Crocker-Amazon), and 94134 (Visitación Valley / Sunnydale), and the fourth or fifth leading cause in four other neighborhoods (Table 47, p. 83). Among females, homicide was among the ten leading causes of deaths in 5 out of 22 neighborhoods. It was the fifth leading cause in ZIP code 94103 (South of Market), and the sixth leading cause of female deaths in ZIP code 94124 (Bayview-Hunters Point) (Table 48, p. 84).

The trends in homicide mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 16. For males, African Americans had the highest rates - about ten times higher than Whites - which increased over the time period. Latino males had the second highest rates. For females, African Americans had the highest homicide mortality rates - about seven times higher than Whites - which did not change significantly over time. The rates remained flat and low over this time period for the other female ethnic groups.

Table 33: Burden of Homicide Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	28 571	557	7	23 913	456	6	4 658	101	16
By Age									
Age <1	330	4	7	165	2	7	165	2	6
Ages 1-4	573	7	2	491	6	2	82	1	7
Ages 5-14	521	7	3	448	6	2	73	1	6
Ages 15-24	10 180	157	1	9 282	143	1	898	14	3
Ages 25-44	13 821	264	4	11 153	213	4	2 668	51	5
Ages 45-64	2 794	83	16	2 156	64	13	638	19	*
Ages 65+	352	30	*	218	18	*	134	12	*
By Race/ethnicity									
White	5 703	134	15	4 398	99	14	1 305	35	*
African American	12 615	239	3	10 518	198	3	2 097	41	7
Latino	5 987	106	3	5 372	95	2	615	11	9
Asian/P.I.	3 119	56	11	2 697	47	6	422	9	*
Filipino	943	18	7	724	13	6	219	5	*
Native American	111	2	7	111	2	6	0	0	*
Other	92	2	†	92	2	†	0	0	†

* Not in leading 20 causes

† Not ranked.

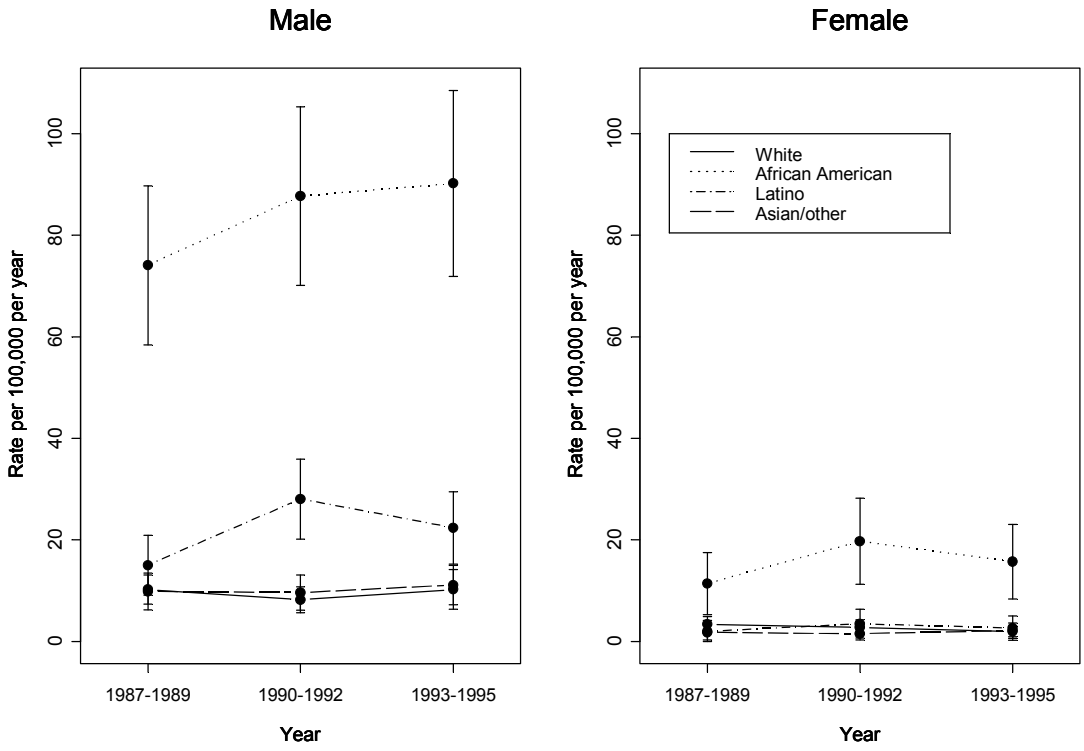


Figure 16: Homicide Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted homicide mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to the White rate, are shown in Table 34. (See also Figures 6 and 7, pp. 28-29)

Table 34: Homicide Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	21.2	(19.1, 23.3)		4.1	(3.3, 5.0)	
White	8.8	(6.7, 11.0)	1.00	2.4	(1.5, 3.3)	1.00
African American	88.6	(76.0, 101.3)	10.04	17.7	(12.1, 23.4)	7.38
Latino	24.7	(19.5, 29.8)	2.79	3.1	(1.2, 5.0)	1.30
Asian/other	10.3	(7.7, 12.9)	1.17	1.8	(0.8, 2.8)	0.76

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.4.4 Chronic liver disease

For the period 1990 through 1995, 771 San Francisco residents died from chronic liver disease, an average of 129 per year, and representing 23 871 standard expected years of life lost (Table 36). There were 551 male deaths, representing 18 018 standard expected years of life lost, and 220 female deaths, representing 5 854 standard expected years of life lost. Average years of life lost per death was 33 for males and 27 for females, indicating that death from cirrhosis occurred at relatively younger ages.

Chronic liver disease ranked as the ninth leading cause of death overall, eighth among males, and eleventh among females. It ranked between fourth and sixth leading cause for ages 25 to 64 in for both sexes. For males, it was the fifth leading cause of death for Latinos, sixth for Whites, and second for Native Americans (13 deaths). For females, was the eleventh leading cause of death overall, the fifth for Latinos, and the leading cause for Native Americans (5 deaths).

In 17 out of 22 San Francisco neighborhoods, chronic liver disease was among the ten leading causes of male deaths. It was the fourth leading cause of male deaths in ZIP code 94102 (Hayes Valley / Tenderloin / N. of Market) (Table 47, p. 83). For females, chronic liver disease was among the ten leading causes of death in 5 out of 22 San Francisco neighborhoods, including being the fourth leading cause of death in ZIP code 94103 (South of Market) (Table 48, p. 84).

The trends in chronic liver disease mortality by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 18. African American, White, and Latino males had the highest chronic liver disease mortality rates, which have continued to overlap while they declined steadily over the time periods reported. Asian males have maintained significantly lower mortality rates. For females, African Americans had the highest chronic liver disease mortality rates, followed by Whites and Latinos, but these rates have declined (significantly so for African Americans) and converged in the latest time period (1993-1995).

Table 35: Burden of Chronic Liver Disease Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	23 871	771	9	18 018	551	8	5 854	220	11
By Age									
Age <1	0	0	*	0	0	*	0	0	*
Ages 1-4	0	0	*	0	0	*	0	0	*
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	0	0	*	0	0	*	0	0	*
Ages 25-44	8 952	189	5	6 992	147	5	1 960	42	6
Ages 45-64	11 636	363	4	9 136	281	4	2 500	82	5
Ages 65+	3 283	215	15	1 889	119	13	1 394	96	14
By Race/ethnicity									
White	14 798	490	7	11 445	359	6	3 354	131	10
African American	3 480	100	9	2 360	66	11	1 120	34	11
Latino	3 578	105	5	2 841	80	5	738	25	5
Asian/P.I.	969	43	*	650	23	*	318	20	*
Filipino	311	14	18	177	9	19	134	5	20
Native American	544	13	2	354	8	2	190	5	1
Other	191	6	†	191	6	†	0	0	†

* Not in leading 20 causes

† Not ranked.

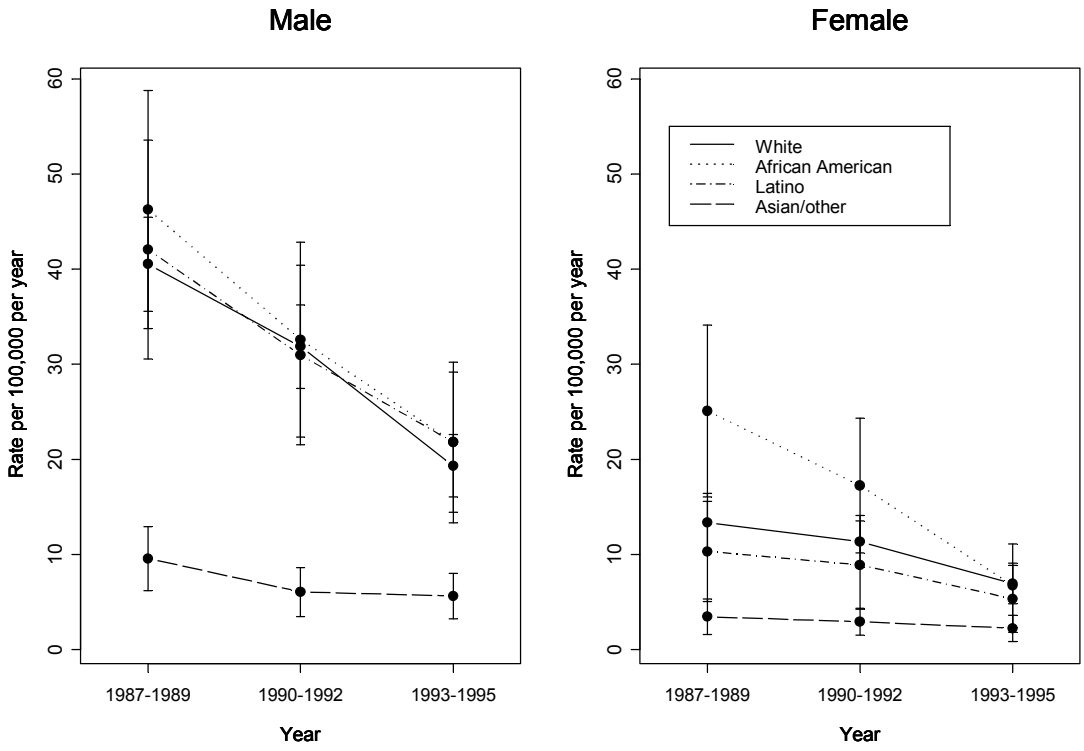


Figure 17: Chronic Liver Disease Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted chronic liver disease mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to the White rate, are shown in Table 36. (See also Figures 6 and 7, pp. 28-29)

Table 36: Chronic Liver Disease Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	20.2	(18.4, 21.9)		6.9	(5.9, 7.9)	
White	25.3	(22.6, 28.0)	1.00	9.1	(7.4, 10.8)	1.00
African American	27.1	(20.5, 33.7)	1.07	11.8	(7.7, 15.9)	1.30
Latino	26.0	(20.1, 31.9)	1.03	7.0	(4.1, 9.9)	0.77
Asian/other	5.8	(4.1, 7.6)	0.23	2.5	(1.5, 3.5)	0.28

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.4.5 Motor Vehicle-Traffic Deaths

For the period 1990 through 1995, 438 San Francisco residents died from motor vehicle traffic injuries, an average of 73 per year, and representing 18 444 standard expected years of life lost. There were 296 male deaths, representing 13 149 standard expected years of life lost, and 142 female deaths representing 5 294 standard expected years of life lost (Table 37). Average years of life lost per death was 44 for males and 37 for females, indicating that death from traffic injuries occurred at relatively younger ages.

Motor vehicle-traffic injuries were the leading causes of death among ages 5 to 14, or between among the top three leading causes of death for ages 1 to 24. For males, motor vehicle traffic injuries were the fifth, seventh and eighth leading causes of premature mortality for Filipino, Latino, and African American males, respectively. For females, motor vehicle-traffic injuries were the 12th leading cause of death overall, and they were the eighth leading cause of death for Asian females.

For males, motor vehicle-traffic injuries were among the ten leading causes of deaths in nine ZIP codes, including being the fifth leading cause of death in ZIP codes 94112 (Ingleside-Excelsior / Crocker Amazon), 95122 (Sunset), and 94134 (Visitación Valley / Sunnydale) (Table 47, p. 83). For females, motor vehicle traffic injuries were among the ten leading causes of death in nine neighborhoods, including being the sixth leading cause of death in ZIP code 94118 (Inner Richmond), and the seventh leading cause of death in ZIP codes 94123 (Marina) and 94134 (Visitación Valley / Sunnydale) (Table 48, p. 84).

The trends in motor vehicle traffic-injury mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 18. For males, African Americans in 1987-1989 had higher rates than the other three groups. Since then, the rates have converged somewhat.

Table 37: Burden of Motor Vehicle-Traffic Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	18 444	438	11	13 149	296	10	5 294	142	12
By Age									
Age <1	82	1	*	0	0	*	82	1	9
Ages 1-4	409	5	3	246	3	3	164	2	2
Ages 5-14	1 130	15	1	672	9	1	458	6	1
Ages 15-24	5 024	78	3	3 806	59	3	1 218	19	1
Ages 25-44	7 827	148	6	5 996	113	7	1 831	35	7
Ages 45-64	2 558	78	17	1 694	51	18	864	27	19
Ages 65+	1 414	113	*	736	61	*	678	52	*
By Race/ethnicity									
White	7 582	196	14	5 218	129	11	2 364	67	14
African American	3 281	63	10	2 498	48	8	783	15	15
Latino	2 929	58	6	2 415	46	7	513	12	11
Asian/P.I.	3 470	90	8	2 118	51	10	1 353	39	8
Filipino	1 026	27	5	812	20	5	213	7	12
Native American	88	2	10	58	1	11	29	1	7
Other	68	2	†	29	1	†	39	1	†

* Not in leading 20 causes

† Not ranked.

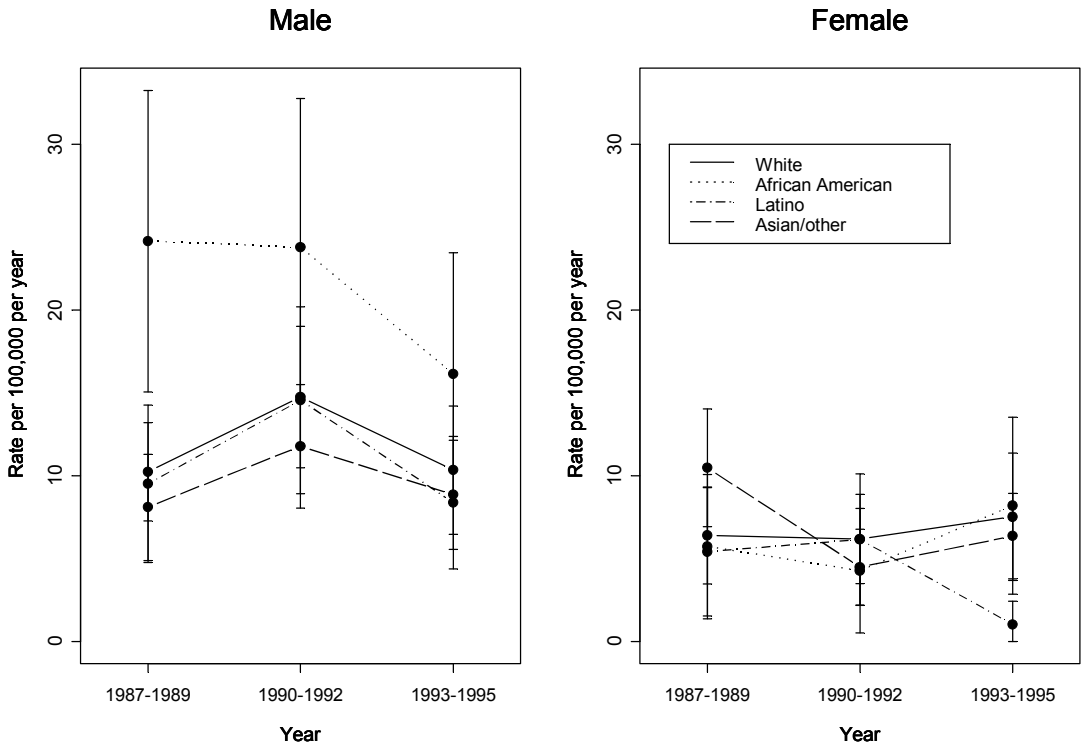


Figure 18: Motor Vehicle-Traffic Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted motor vehicle-traffic mortality rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and rate ratios compared to the White rate, are shown in Table 38. (See also Figures 6 and 7, pp. 28-29)

Table 38: Motor Vehicle-Traffic Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	12.4	(10.9, 14.0)		5.5	(4.4, 6.5)	
White	12.7	(9.8, 15.6)	1.00	6.4	(4.3, 8.5)	1.00
African American	20.3	(14.4, 26.1)	1.60	6.3	(3.0, 9.6)	0.98
Latino	11.5	(8.1, 15.0)	0.91	3.5	(1.4, 5.6)	0.54
Asian/other	10.2	(7.8, 12.7)	0.81	5.5	(3.8, 7.2)	0.86

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.4.6 Comments for Alcohol

Alcohol contributes to premature mortality by increasing the risk of injury, by increasing the risk of some types of cancer, by its toxic effects on the liver when large amounts are drunk on a regular basis, and by other means, such as potentiating the effects of other drugs. The greatest risks associated with alcohol occur with heavy drinking, whether acutely or chronically. However, even modest consumption increases the risk of injuries.

The high rate of breast cancer in the San Francisco Bay Area has been attributed, in part, to the high rates of alcohol consumption in the region [45]. There are other preventable risks for breast cancer, such as physical inactivity [10, 18, 36] and overweight [4, 36], but there is now compelling evidence that women who regularly consume two or more drinks per day are at increased risk for breast cancer [36, 50, 57].

The causes of homicide are complex, but there is evidence that the high rates of assaultive violence that occur in some neighborhoods can be associated with the high concentration of alcohol outlets in those neighborhoods [46]. This finding merits further study in San Francisco, which has the highest concentration of alcohol outlets in California.

No discussion of the potentially harmful effects of alcohol can ignore its considerable beneficial effect in reducing ischemic heart disease mortality [7]. For many individuals, this beneficial effect of moderate drinking outweighs the risks associated with alcohol. However, there are arguments against a general recommendation to "drink for health." First, considering the well-established risks for heart disease, it would seem that the avoidance of smoking, adoption of a healthier diet, and increases in physical activity would be a safer approach, and this approach would also decrease the risk of many other causes of mortality. A second perspective is to weigh the risks and benefits for various age groups [37]. For those younger than 30, alcohol's main effect is to increase the risk of injury morality; this age group does not benefit significantly from alcohol's cardioprotective effects. For those ages 30 to 59, the combined effects of alcohol-related injuries and alcohol-related diseases greatly outweigh alcohol's beneficial effects on the heart. Among those ages 60 to 69, the beneficial and detrimental effects of alcohol are roughly balanced. Among those older than 70, alcohol's beneficial effects on the heart outweigh its many detrimental effects. However, some 70+ year-olds will be taking medicines that may not mix well with alcohol, and some may have other conditions that make drinking especially risky. When considered from these perspectives, there seems to be little evidence to recommend drinking for health; alcohol should be enjoyed in moderation, with full appreciation of its risks. Consuming more than two drinks per day increases the risk of high blood pressure, hemorrhagic stroke, and some forms of heart disease [5, 26].

When looking at the mortality profiles for each of the many demographic groups that make up the population of San Francisco, it becomes evident that each group is unique, and much of this uniqueness probably comes from each group's relationship to alcohol. Studies in the medical literature confirm some of these associations. For example, a survey of Latino women in San Francisco [41] found that they drink far less than their White counterparts, which explains their lower rates of mortality from alcohol-attributable diseases and injuries. On the other hand, it has been shown that African American men living in extremely poor neighborhoods are at especially high risk for alcohol-related problems [24]. The mortality profile for each of the various neighborhood and ethnic groups can be evaluated while comparing it with Tables 5-7.

3.4.7 Comments for illicit drugs

Illicit Drugs. Illicit drugs contribute to premature mortality in a variety of ways, but quantification is more difficult than with tobacco or alcohol. The majority of drug poisoning deaths in this report can be attributed to illicit drugs. Alcohol in combination with cocaine or heroin is a common cause of drug overdose deaths [21].

Although the great majority of AIDS infections in San Francisco have historically been among gay men, intravenous drug use is an important route of transmission. In San Francisco in 1995, 10.4% of new AIDS cases were directly attributed to injection drug use and another 10.6% of new cases occurred among males who might have contracted the virus either sexually (gay or bisexual) or by their injection of illicit drugs [47]. Nationally in 1995, 36% of AIDS cases were attributed either directly

or indirectly to injection drug use [8]. Transmission of HIV by injection drug use is increasing in San Francisco (more than 14% of cases in 1997), and has affected African Americans disproportionately (more than a quarter of AIDS cases over the course of the epidemic) [47]. Crack cocaine smoking is also an important risk for AIDS [15].

Other associations between illicit drugs and the leading causes of death are difficult to quantify. These include deaths from hepatitis or other infections transmitted during injection drug use, homicides committed in the course of illicit drug commerce, deaths from motor-vehicle traffic injuries, and suicides, to name a few.

3.5 Burden of deaths related to diet and physical inactivity

Dietary excess and physical inactivity are common in the developed regions of the world, and they contribute to several of the leading causes of death in those regions. San Francisco is no exception. The pages that follow present an analysis of deaths from Ischemic Heart Disease, Colorectal Cancer, and Breast Cancer. There are other risk factors for each of these causes of death, and other causes of death are associated with dietary excess and physical inactivity (see Tables 5-6). In particular, smoking, is an especially important risk for heart disease and stroke, but prevention of these two leading causes of premature death will be most effective if we also consider them in terms of their association with diet and physical inactivity.

A literature search is underway to determine the extent to which each of these causes of death can be attributed to

diet/physical inactivity:

- Ischemic Heart Disease. High-fat diet, physical inactivity, and overweight are well-established risks.
- Stroke. High-fat diet, physical inactivity, and overweight are well-established risks.
- Colorectal Cancer. Low-fiber diet and physical inactivity are well-established risks.
- Breast Cancer. Overweight and physical inactivity are well-established risks.
- Cardiomyopathies. This category includes congestive heart failure secondary to ischemic heart disease.
- Diabetes mellitus. Diabetes is a major risk for ischemic heart disease and stroke. Non-insulin-dependent diabetes mellitus, which is the most common type of diabetes, is highly correlated with overweight and physical inactivity.
- Falls. Physical inactivity is a risk, but so are many forms of exercise.
- Prostate Cancer. Physical inactivity is a risk; high-fat diet may be a risk.
- Nephritis & Nephrosis. More than half of all cases are secondary to non-insulin-dependent diabetes mellitus.
- Uterine Cancer. Highly correlated with overweight.
- Hypertension. Hypertension, a major risk for stroke and ischemic heart disease, is highly correlated with overweight and physical inactivity.

3.5.1 Ischemic Heart Disease Deaths

For the period 1990 through 1995, 11 010 San Francisco residents died from ischemic heart disease, an average of 1 835 per year, and representing 141 184 standard expected years of life lost (Table 39). There were 5 548 male deaths, representing 87 724 standard expected years of life lost, and 5 462 female deaths, representing 53 461 standard expected years of life lost. Average years of life lost per death was 16 years for males and 10 years for females, indicating that death from ischemic heart disease occurred at older ages. For both men and women, ischemic heart disease was the first or second leading cause of death in every ethnic group, and for ages 45 or older.

For males, ischemic heart disease was the first or second leading cause of death in 21 neighborhoods (47, p. 83). It was the third leading cause in one ZIP, 94124 (Bayview-Hunters Point). Among females, ischemic heart disease was the leading cause of female deaths in every San Francisco neighborhood (Table 48, p. 84).

The trends in ischemic heart disease mortality rates by sex and ethnicity for the period 1987 through 1995 are displayed in Figure 19. For males, African Americans had the significantly highest mortality rates throughout the three time periods. White males had the second highest ischemic heart disease mortality rates, significantly greater than the groups with the lowest rates, Asian and Latino males. Rates for all groups in 1993-1995 were less than in 1987-1989, but significantly so only for Whites. For females, the picture among the ethnicities is the same as it is for males, except that the low rates among Asian and Latino females remained flat over the periods. White females' rates also declined significantly.

Table 39: Burden of Ischemic Heart Disease Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	141 184	11 010	2	87 724	5 548	2	53 461	5 462	1
By Age									
Age <1	0	0	*	0	0	*	0	0	*
Ages 1-4	0	0	*	0	0	*	0	0	*
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	63	1	*	63	1	*	0	0	*
Ages 25-44	7 461	161	7	6 280	136	6	1 181	25	9
Ages 45-64	39 576	1 356	2	31 722	1 079	2	7 854	277	1
Ages 65+	94 084	9 476	1	49 658	4 320	1	44 426	5 156	1
By Race/ethnicity									
White	84 762	7 180	2	52 381	3 453	2	32 381	3 727	1
African American	22 423	1 315	2	13 405	692	2	9 017	623	1
Latino	8 109	621	2	4 935	311	3	3 174	310	1
Asian/P.I.	18 787	1 406	1	12 027	766	1	6 760	640	1
Filipino	6 310	447	1	4 416	300	1	1 894	147	1
Native American	226	10	4	162	6	4	65	4	3
Other	567	31	†	398	20	†	169	11	†

* Not in leading 20 causes

† Not ranked.

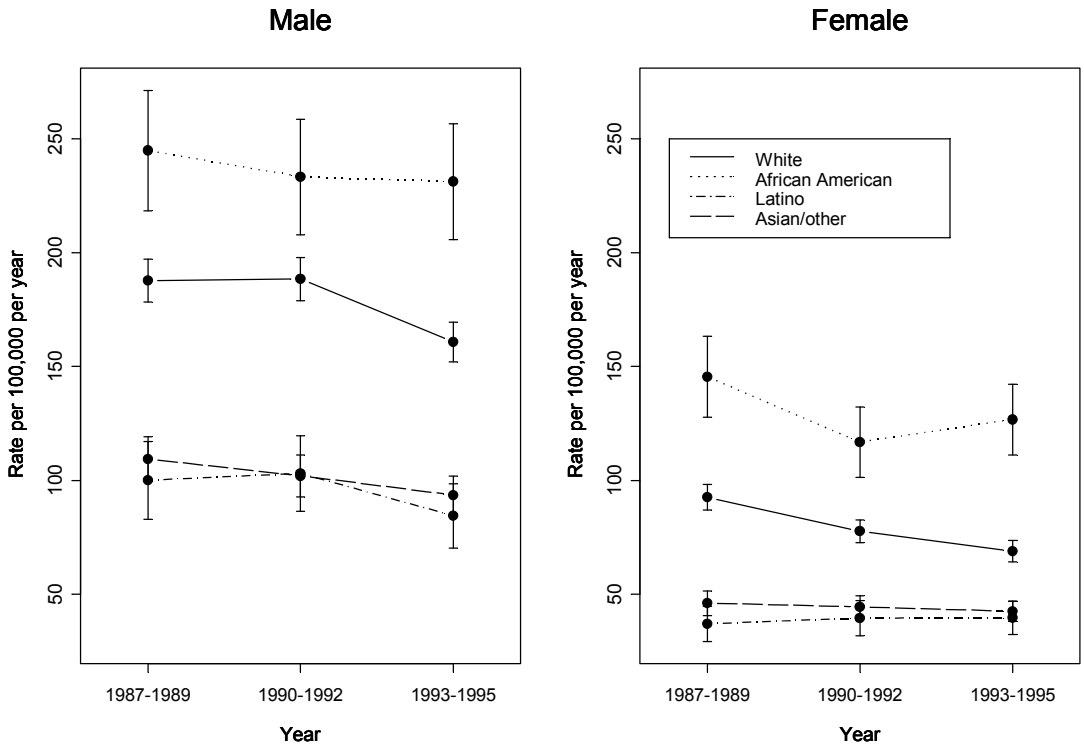


Figure 19: Ischemic Heart Disease Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted ischemic heart disease rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and the rate ratios of each group compared to the White rates, are shown in Table 40. (See also Figures 6 and 7, pp. 28-29)

Table 40: Ischemic Heart Disease Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	148.6	(144.4, 152.8)		66.7	(64.4, 68.9)	
White	174.2	(167.8, 180.6)	1.00	73.2	(69.8, 76.7)	1.00
African American	232.6	(214.6, 250.6)	1.34	121.5	(110.6, 132.5)	1.66
Latino	93.3	(82.4, 104.1)	0.54	39.5	(34.2, 44.8)	0.54
Asian/other	97.4	(91.2, 103.6)	0.56	43.4	(40.1, 46.7)	0.59

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.5.2 Colorectal Cancer Deaths

For the period 1990 through 1995, 1 058 San Francisco residents died from colorectal cancer, an average of 176 per year, and representing 16 967 standard expected years of life lost (Table 41). There were 520 male deaths, representing 9 048 standard expected years of life lost, and 538 deaths representing 7 919 standard expected years of life lost. Average years of life lost per death was 17 years for males and 15 years for females, indicating that death from colorectal cancer occurred at relatively older ages.

For males, colorectal cancer was the 13th leading cause of death. It was the 11th leading cause for Asians, and the 12th leading cause for Filipinos and Whites. For females, colorectal cancer was the seventh leading cause of death. It was the fourth leading cause of death for Filipinos, sixth for Asians, eighth for Whites, and tenth for African Americans.

For males, colorectal cancer was among the ten leading causes of deaths in seven neighborhoods (Table 47, p. 83), including two in which it ranked seventh: 94116 (Parkside) and 94121 (Outer Richmond), and three in which it ranked eighth: 94122 (Sunset), 94123 (Marina), and 94132 (Lake Merced). For females, colorectal cancer was among the ten leading causes of deaths in 15 out of 22 neighborhoods. It was the fifth leading cause of death in ZIP code 94132 (Lake Merced) and the sixth leading cause of death in ZIP codes 94108 (Chinatown), 94112 (Ingleside-Excelsior / Crocker-Amazon), 94127 (St. Francis Wood, Miraloma / Seaside), and 94133 (North Beach / Chinatown) (Table 47, p. 83).

Table 41: Burden of Colorectal Cancer Deaths by Age and Sex, and by Ethnicity and Sex 1990-1995

	Total			Male			Female		
Grouping	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank	SEYLL	Deaths	Rank
Total	16 967	1 058	12	9 048	520	13	7 919	538	7
By Age									
Age <1	0	0	*	0	0	*	0	0	*
Ages 1-4	0	0	*	0	0	*	0	0	*
Ages 5-14	0	0	*	0	0	*	0	0	*
Ages 15-24	0	0	*	0	0	*	0	0	*
Ages 25-44	2 105	45	17	1 321	28	16	784	17	11
Ages 45-64	4 871	167	11	2 796	96	13	2 074	71	7
Ages 65+	9 991	846	6	4 930	396	7	5 060	450	7
By Race/ethnicity									
White	9 349	639	10	5 185	320	12	4 164	319	8
African American	2 432	124	15	1 198	55	17	1 234	69	10
Latino	991	54	17	510	28	18	481	26	13
Asian/P.I.	3 389	197	9	1 701	90	11	1 687	107	6
Filipino	716	39	9	385	24	12	331	15	4
Native American	0	0	*	0	0	*	0	0	*
Other	91	5	†	68	3	†	22	2	†

* Not in leading 20 causes

† Not ranked.

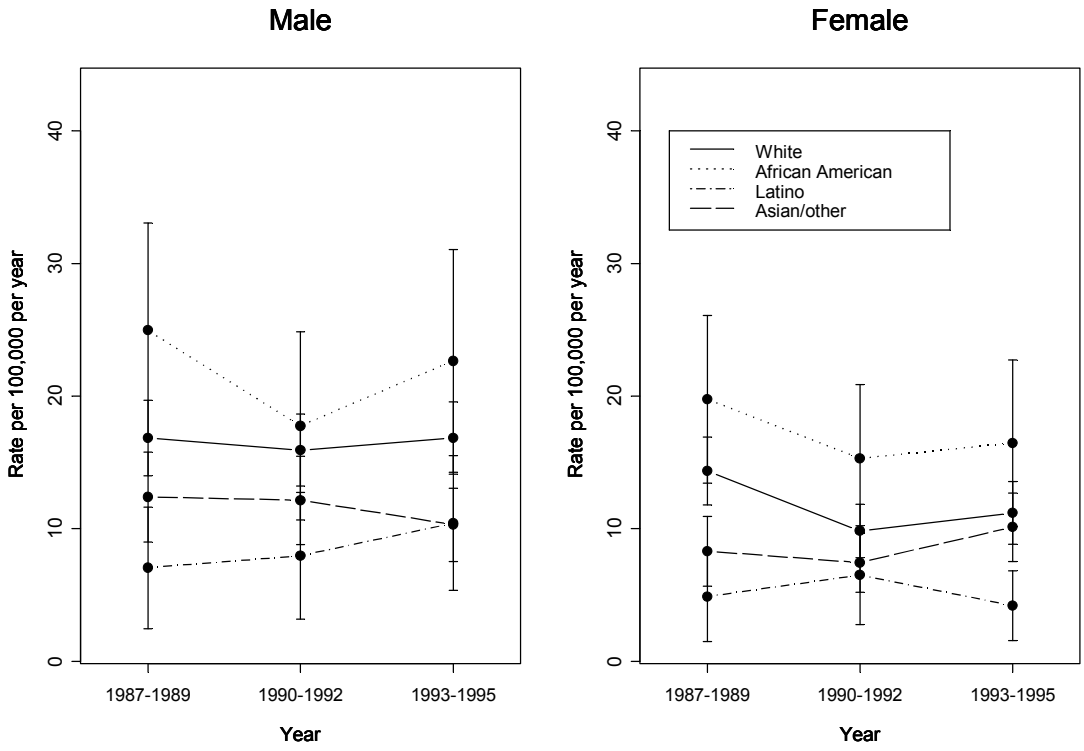


Figure 20: Colorectal Mortality Rates by Sex and Ethnicity 1987-1995

Age-adjusted colorectal cancer rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and the rate ratios of each group compared to the White rates, are shown in Table 42. (See also Figures 6 and 7, pp. 28-29)

Table 42: Colorectal Cancer Mortality Rates and Rate Ratios by Ethnicity and Sex, 1990-1995

Race/ethnicity	Male			Female		
	Rate*	95% C.I.	RR	Rate	95% C.I.	RR
All ethnic groups	14.5	(13.2, 15.8)		9.9	(8.9, 10.9)	
White	16.4	(14.4, 18.3)	1.00	10.5	(9.0, 12.1)	1.00
African American	20.1	(14.6, 25.6)	1.23	15.9	(11.6, 20.1)	1.50
Latino	9.3	(5.8, 12.8)	0.57	5.3	(3.0, 7.5)	0.50
Asian/other	11.1	(9.0, 13.3)	0.68	8.9	(7.1, 10.6)	0.84

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.5.3 Breast Cancer Deaths

For the period 1990 through 1995, 722 San Francisco female residents died from breast cancer, an average of 120 per year, and representing 15 218 standard expected years of life lost (Table 43). The average years of life lost per death was 21.

Breast cancer was the fourth leading cause of female deaths overall, the third leading cause for ages 25 to 44, the second leading cause for ages 45 to 64, and the sixth leading cause for ages 65 or older. It was among the five leading causes of death for all ethnic groups.

In 18 out of 22 San Francisco neighborhoods, breast cancer was among the five leading causes of female deaths. Breast cancer was the second leading cause of female deaths in ZIP code 94124 (Bayview-Hunters Point); the third leading cause of death in ZIP codes 94112 (Castro, Noe Valley), 94121 (Outer Richmond), 94131 (Twin Peaks-Glenn Park), and 94132 (Lake Merced); and the fourth leading cause in other ZIP codes (Table 48, p. 84).

The trends in female breast cancer mortality rates by ethnicity for the period 1987 through 1995 are displayed in Figure 21. African Americans and Whites had the highest rates in 1987-1989; by 1993-1995, only the White rate had declined. Latinos and Asians rates started much lower and stayed at that level throughout the time studied.

Table 43: Burden of Female Breast Cancer Deaths, by Age and Ethnicity, 1990-1995

Grouping	SEYLL	Deaths	Rank
Total	15 218	722	4
By Age			
Age <1	0	0	*
Ages 1-4	0	0	*
Ages 5-14	0	0	*
Ages 15-24	0	0	*
Ages 25-44	2 966	63	3
Ages 45-64	6 850	220	2
Ages 65+	5 402	439	6
By Race/ethnicity			
White	8 402	449	4
African American	2 694	110	5
Latino	960	40	4
Asian/P.I.	2 440	97	4
Filipino	680	24	3
Native American	34	1	6
Other	9	1	†

* Not in leading 20 causes

† Not ranked.

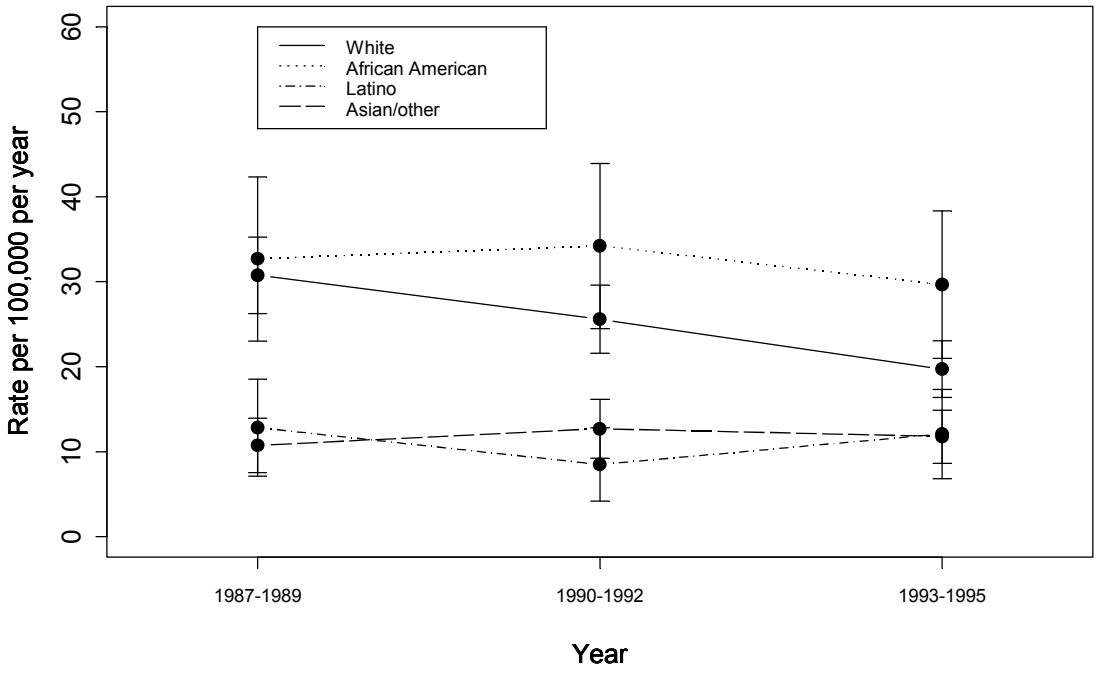


Figure 21: Female Breast Cancer Mortality Rates by Ethnicity 1987-1995

Age-adjusted colorectal cancer rates by sex and ethnicity for the combined period 1990 through 1995, along with their 95% confidence intervals and the rate ratios of each group compared to the White rates, are shown in Table 44. (See also Figures 6 and 7, pp. 28-29)

Table 44: Female Breast Cancer Mortality Rates and Rate Ratios, by Ethnicity, 1990-1995

Race/ethnicity	Female Rate	95% C.I.	RR
All ethnic groups	18.8	(17.2, 20.4)	
White	22.4	(19.8, 25.0)	1.00
African American	32.0	(25.5, 38.6)	1.43
Latino	10.4	(6.9, 13.8)	0.46
Asian/other	12.2	(9.9, 14.6)	0.55

*Rate per 100 000 per year, age-adjusted to 1940 U.S. standard million population

3.5.4 Comments

Nationally, diet/inactivity accounts for an estimated 14% of mortality, making it the second leading preventable cause of death [35]. Tables 5-7 depict the ways in which diet/inactivity contribute to the leading causes of death in San Francisco.

Overweight. Diet/inactivity is an awkward expression for the relationship between poor diet (too much fat, too many calories, not enough fresh fruits and vegetables) and physical inactivity. It is manifested as overweight. In 1995, 28.6% of Americans and 26.4% of Californians were overweight [43]. We do not have specific data for San Francisco, but it is unlikely that we are much better off than other Californians. Although a decrease in overweight is a national health priority for the year 2000, the prevalence of overweight has been increasing rather than decreasing [13]. The greatest burden of overweight nationally is among women of color; nearly half of African American and Latino women are overweight [28]. Overweight increases the risk of death from ischemic heart disease, stroke, and some cancers. Among non-smoking adults between the ages of 30 and 74, the risk of death from all causes increases as body weight increases, even at weights below those usually considered as overweight, especially among younger people [51].

Exercise. According to the recent Surgeon General's Report on Physical Activity and Health [13], the risk of ischemic heart disease, one of the leading causes of death in San Francisco, is 80% higher among those who are the least physically active, compared with those who are most active. In addition, exercise decreases the risk of high blood pressure [13], diabetes [31, 32, 55, 13], stroke [1, 19], colon cancer [20, 56, 33, 49, 29], breast cancer [36, 18, 10], and prostate cancer [9]. Even modest exercise such as stair climbing, walking, and moderately vigorous sports play will decrease the risk of premature mortality [39, 40]. In a study of retired non-smoking men, walking more than 2 miles per day was associated with a 50% reduction in the mortality rate, compared with those who walked less than a 1 mile per day [23]. Those who adopt healthy life-styles (exercising, not smoking, avoiding overweight) not only live longer, they also experience less disability in old age [53].

3.6 Ethnicity Profiles

The race/ethnicity variable in the death certificate records had seven common categories available across all six years: White, African American, Latino, Asian/Pacific Islander, Filipino, Native American, and Other. San Francisco's 13 leading causes of premature death were ranked for each ethnic group (Table 45), and the leading causes of premature mortality for each ethnic group are shown in the pages that follow (except for the 192 deaths classified as Other).

Table 45: Ranking of Leading Causes of Deaths by Ethnicity and Sex 1990-1995

Sex & Ethnicity	SEYLL	Deaths	AIDS	HEART DISEASE	LUNG CANCER	STROKE	DRUG POISNING	SUICIDE	HOMICIDE	PNEUMONIA	CHRONIC LIVER	COPD	MOTOR VEHICLE	COLON CANCER	BREAST CANCER
Male (total)	776 759	28 613	1	2	3	7	4	5	6	9	8	11	10	13	*
African American	113 634	3 739	1	2	5	6	4	10	3	7	11	16	8	17	*
Asian/Pacific Islander	71 031	3 476	*	1	2	4	*	7	6	9	*	8	10	11	*
Filipino	19 801	1 020	2	1	4	3	*	16	6	8	19	9	5	12	*
Latino	75 741	2 195	1	3	14	9	4	6	2	10	5	*	7	18	*
Native American	3 031	76	1	4	†	†	3	†	†	†	†	2	†	†	*
White	489 287	17 972	1	2	5	8	4	3	14	7	6	10	11	12	*
Other	4 234	135	1	2	†	†	†	†	†	†	3	4	†	†	*
Females (Total)	291 450	19 811	6	1	3	2	10	9	16	5	11	8	12	7	4
African American	55 490	2 540	2	1	4	3	6	20	7	9	11	13	15	10	5
Asian/Pacific Islander	44 511	2 880	*	1	3	2	*	7	*	5	*	13	8	6	4
Filipino	10 875	571	10	1	13	2	*	*	11	5	20	17	12	4	3
Latino	22 086	1 217	2	1	8	3	14	*	9	7	5	*	11	13	4
Native American	800	26	†	†	†	†	†	†	†	†	1	†	†	†	†
White	156 398	12 520	12	1	2	3	9	7	*	5	10	*	14	8	4
Other	1 291	57	†	1	†	†	†	†	†	†	†	6	†	†	†

AIDS=Acquired immunodeficiency syndrome, Heart disease=Ischemic heart disease, Drug poisoning from unintentional injury, Chronic liver=Chronic liver disease/cirrhosis, COPD=Chronic obstructive pulmonary disease, Motor Vehicle=Motor vehicle-traffic, Colon cancer=Colorectal cancer.

* Not among ethnic group's 20 leading causes of premature mortality

† Fewer than five deaths

3.6.1 African-American

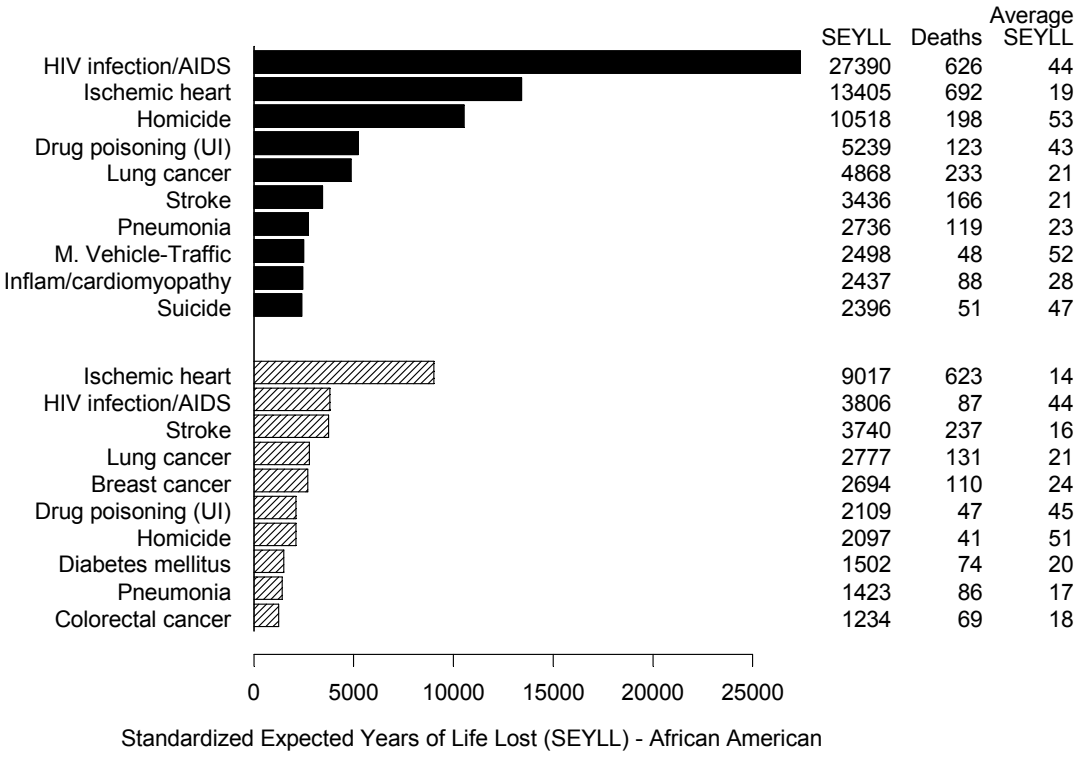


Figure 22: Leading causes of death for African American males (top) and females (bottom), 1990-1995. For all causes, there were 3 739 male deaths (SEYLL = 113 634 years) and 2 540 female deaths (SEYLL = 55 490 years). The 1990 Census population estimate was 76 944 (10.6% of total population).

Among African American males: AIDS was the leading cause of death, representing 24.1% of the 113 634 expected years of life lost from all causes. AIDS, ischemic heart disease (11.8%), and homicide (9.3%) accounted for over 45% of all expected years of life lost . The most premature causes were homicide, MV-traffic , suicide, AIDS, and drug poisoning, causing an average of 53, 52, 47, 44, and 42 expected years of life lost per death, respectively. Injuries were the third, fourth, eighth, and tenth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, stroke, pneumonia), alcohol with seven (homicide, drug poisoning, stroke, pneumonia, MV-traffic, cardiomyopathies, suicide), drug use with six (AIDS, homicide, drug poisoning, stroke, MV-traffic, suicide) and diet/physical inactivity with two (ischemic heart disease, stroke).

Among African American females: Ischemic heart disease was the leading cause of death, representing 16.2% of the 55 490 expected years of life lost from all causes. AIDS was the second leading cause (6.9% of all expected years of life lost). The most premature causes were homicide, drug poisoning, and AIDS, causing an average of 51, 45, and 44 expected years of life lost per death, respectively. Injuries were the sixth and seventh leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, and colorectal cancer), alcohol with six (stroke, breast cancer, drug poisoning, homicide, pneumonia, colorectal cancer), drug use with four (AIDS, stroke, drug poisoning, homicide) and diet/physical inactivity with five (ischemic heart disease, stroke, breast cancer, diabetes mellitus, colorectal cancer).

3.6.2 Asian/Pacific Islander

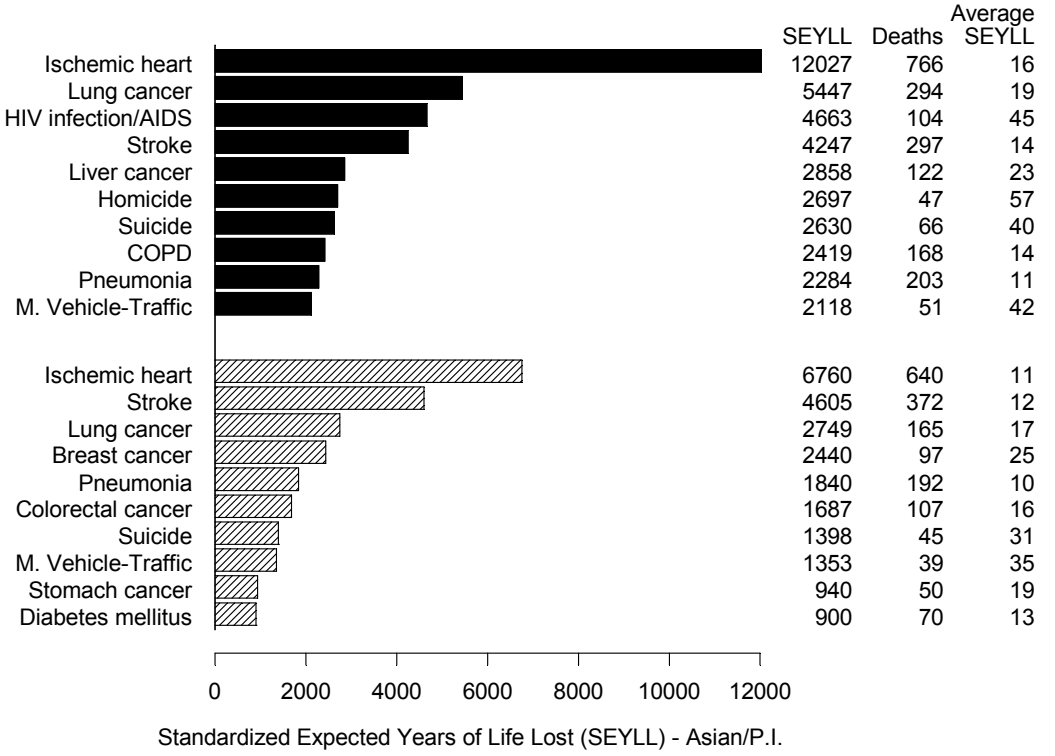


Figure 23: Leading causes of death for Asian/Pacific Islander males (top) and females (bottom), 1990-1995. For all causes, there were 3 476 male deaths (SEYLL = 71 031 years) and 2 880 female deaths (SEYLL = 44 511 years). The 1990 Census population estimate was 166 480 (23.0% of total population).

Among Non-Filipino Asian/Pacific Island males: Ischemic heart disease was the leading cause of death, representing 16.9% of the 71 031 expected years of life lost from all causes, followed by lung cancer (7.7%), AIDS (6.6%) and stroke (6.0%), and together accounted for over one-third of years of life lost . The most premature causes were homicide, AIDS, MV-traffic, and suicide, causing an average of 57, 45, 42 and 40 expected years of life lost per death, respectively. Injuries were the sixth, seventh and tenth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease, and pneumonia,), alcohol with four (stroke, homicide, suicide, MV-traffic), drug use with five (AIDS, stroke, homicide, suicide, MV-traffic), and diet/physical inactivity with two (ischemic heart disease, stroke).

Among Non-Filipino Asian/Pacific Island females: Ischemic heart disease was the leading cause of death, representing 15.2% of the 44 511 expected years of life lost from all causes, followed by stroke (10.3%), lung cancer (6.2%) and breast cancer (5.5%), and together accounted for over one-third of years of life lost . The most premature causes were MV-traffic and suicide, causing an average of 35 and 31 expected years of life lost per death, respectively. Injuries were the seventh and eighth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, colorectal cancer), alcohol with six (stroke, breast and colorectal cancer, suicide, MV-traffic, pneumonia), drug use with three (stroke, suicide, MV-traffic) and diet/physical inactivity with five (ischemic heart disease, stroke, breast and colorectal cancer, and diabetes mellitus).

3.6.3 Filipino

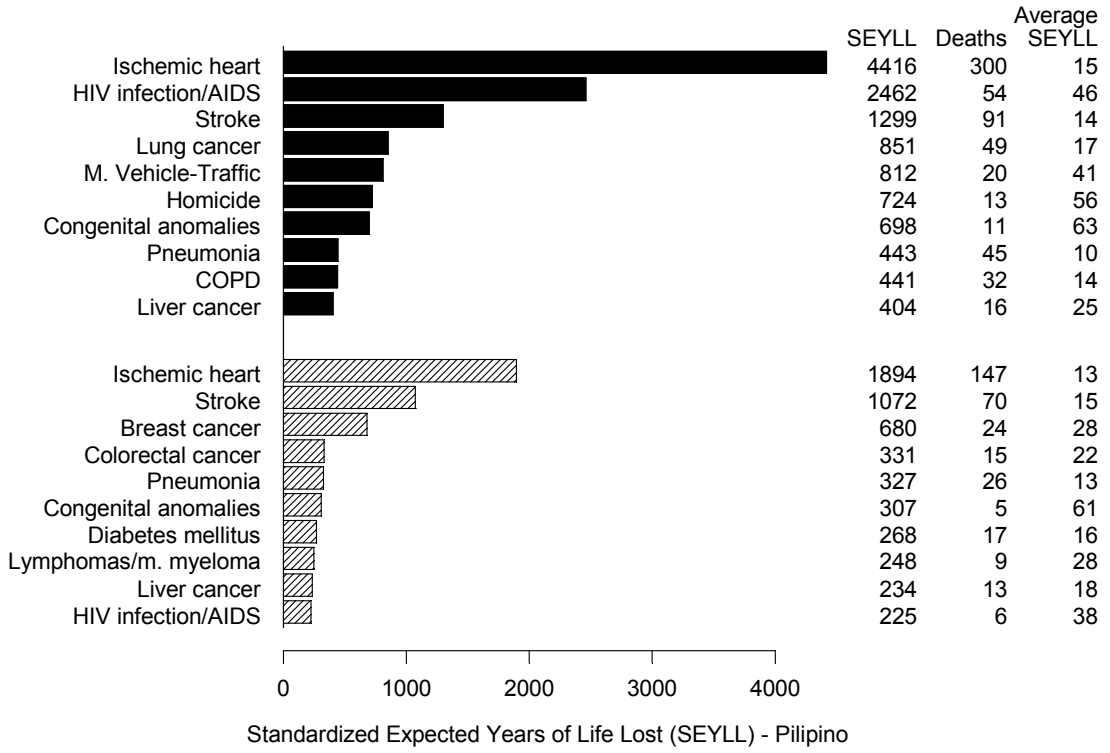


Figure 24: Leading causes of death for Filipino males (top) and females (bottom), 1990-1995. For all causes, there were 1 020 male deaths (SEYLL = 19 801 years) and 571 female deaths (SEYLL = 10 875 years). The 1990 Census population estimate was 40 977 (5.7% of total population).

Among Filipino males: Ischemic heart disease was the leading cause of death, representing 22.3% of the 19 801 expected years of life lost from all causes. Ischemic heart disease and AIDS (12.4%) accounted for one-third of all expected years of life lost . The most premature causes were congenital anomalies, homicide, AIDS and MV-traffic, causing an average of 63, 56, 46 and 41 expected years of life lost per death, respectively. Injuries were the fifth and sixth leading cause of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, and chronic obstructive pulmonary disease), alcohol with four (stroke, MV-traffic, homicide, liver cancer), drug use with four (AIDS, stroke, MV-traffic, homicide), and diet/physical inactivity with two (ischemic heart disease, stroke).

Among Filipino females: Ischemic heart disease was the leading cause of death, representing 17.4% of the 10 875 expected years of life lost from all causes. Ischemic heart disease, stroke (9.9%) and breast cancer (6.3%) accounted for over one-third of all expected years of life lost . AIDS was the 10th leading cause (six deaths, 2.1% of expected years of life lost). The most premature causes were congenital anomalies and AIDS, causing an average of 61 and 38 expected years of life lost per death, respectively. No injury categories were among the ten leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, colorectal cancer, and pneumonia), alcohol with four (stroke, breast cancer, colorectal cancer, pneumonia), drug use with two (stroke, AIDS) and diet/physical inactivity with five (ischemic heart disease, stroke, breast cancer, colorectal cancer, diabetes mellitus).

3.6.4 Latino

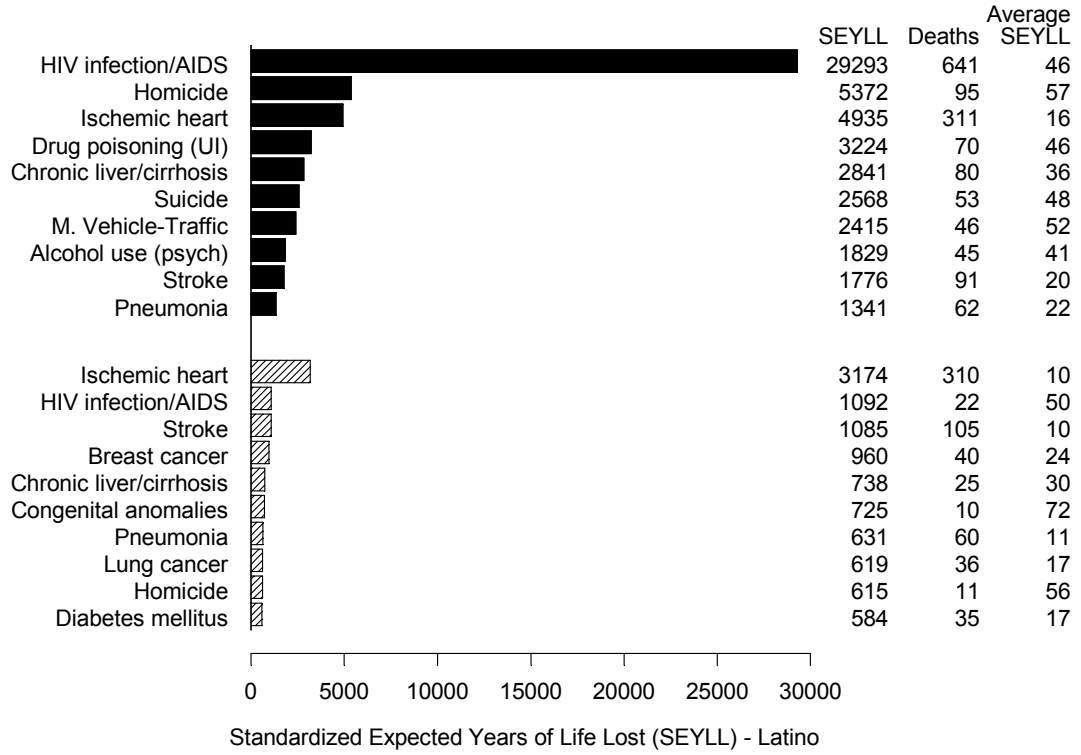


Figure 25: Leading causes of death for Latino males (top) and females (bottom), 1990-1995. For all causes, there were 2 195 male deaths (SEYLL = 75 741 years) and 1 217 female deaths (SEYLL = 22 086 years). The 1990 Census population estimate was 96 640 (13.3% of total population).

Among Latino males: AIDS was the leading cause of death, representing 38.7% of the 75 741 expected years of life lost from all causes. AIDS, homicide (7.1%), and ischemic heart disease (6.5%) accounted for over one-half all expected years of life lost . The most premature causes were homicide, MV-traffic, suicide, AIDS, drug poisoning, and alcohol use (psychiatric diagnosis), causing an average of 57, 52, 48, 46, 46 and 41 expected years of life lost per death, respectively. Injuries were the second, fourth, sixth, and seventh leading causes of death. Tobacco was associated with three leading causes (ischemic heart disease, stroke, and pneumonia), alcohol with eight (homicide, drug poisoning, cirrhosis, suicide, MV-traffic, alcohol [psychiatric diagnosis], stroke, pneumonia), drug use with six (AIDS, homicide, drug poisoning, cirrhosis, suicide, MV-traffic) and diet/physical inactivity with two (ischemic heart disease, stroke).

Among Latino females: Ischemic heart disease was the leading cause of death, representing 14.4% of the 22 086 expected years of life lost from all causes. AIDS was the second leading cause (4.9% of all expected years of life lost). The most premature causes were congenital anomalies, homicide, and AIDS, causing an average of 72, 56, and 50 expected years of life lost per death, respectively. Injuries were the ninth leading cause of death (homicide). Tobacco was associated with four leading causes (ischemic heart disease, stroke, pneumonia, lung cancer), alcohol with five (stroke, breast cancer, cirrhosis, pneumonia, homicide), drug use with four (AIDS, stroke, cirrhosis, homicide) and diet/physical inactivity with five (ischemic heart disease, stroke, breast cancer, lung cancer, diabetes mellitus).

3.6.5 Native American

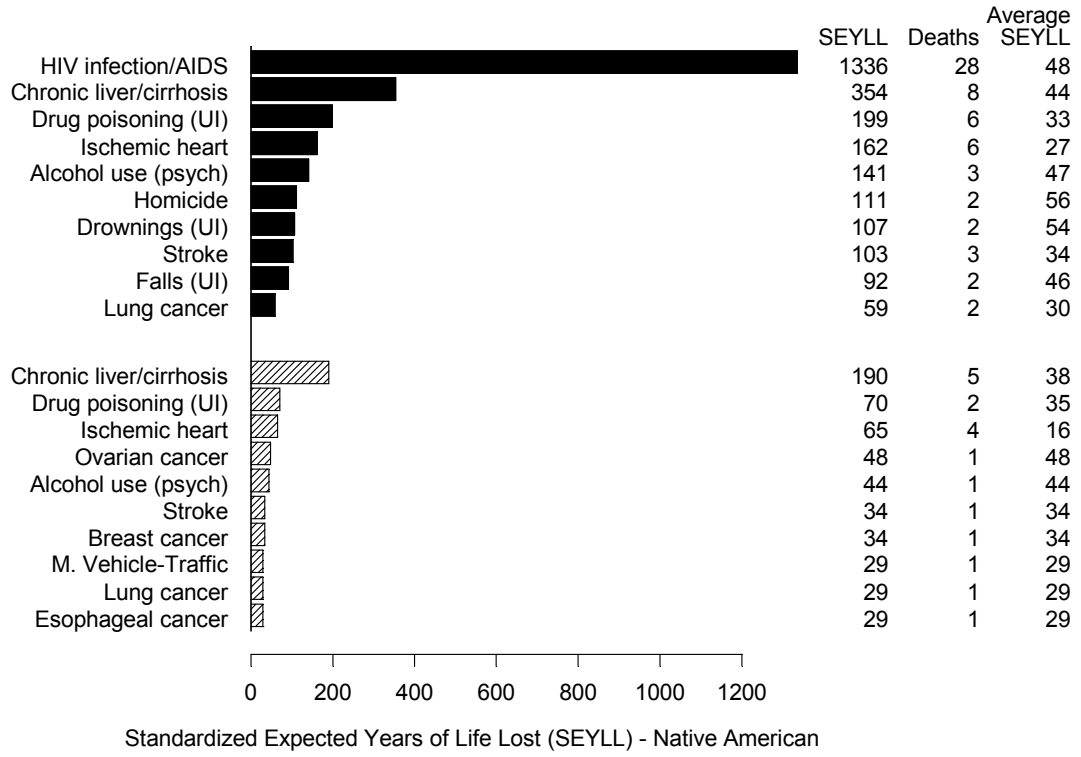


Figure 26: Leading causes of death for Native American males (top) and females (bottom), 1990-1995. For all causes, there were 76 male deaths (SEYLL = 3 031 years) and 26 female deaths (SEYLL = 800 years). The 1990 Census population estimate was 2 464 (0.3% of total population).

Among Native American males: AIDS was the leading cause of death, representing 44.1% of the 3031 expected years of life lost from all causes. AIDS, cirrhosis (11.7%) and drug poisoning (6.6%) accounted for over 60% of total SEYLL . The most premature causes (and with at least five deaths) were also AIDS and cirrhosis, causing an average of 48 and 44 expected years of life lost per death, respectively. (Other causes involved very small numbers of deaths, but with unusually high average years of life lost.) Injuries were the third, sixth, seventh, and ninth leading causes of death. Tobacco was associated with three leading causes (ischemic heart disease, stroke, lung cancer), alcohol with six (cirrhosis, drug poisoning, alcohol use [psychiatric diagnosis], homicide, stroke, and falls), drug use with five (AIDS, cirrhosis, drug poisoning, homicide, stroke) and diet/physical inactivity with three (ischemic heart disease, stroke, lung cancer).

Among Native American females: Chronic liver disease was the leading cause of death, representing 23.6% of the 800 expected years of life lost from all causes, and was the only leading cause with more than four deaths. It was associated with an average of 38 expected years of life lost per death. Injuries were the second and eighth leading causes of death. Only the first three causes had more than one death; of these, cirrhosis and drug poisoning are associated with alcohol and drugs, and ischemic heart disease with tobacco, diet and physical inactivity.

3.6.6 White

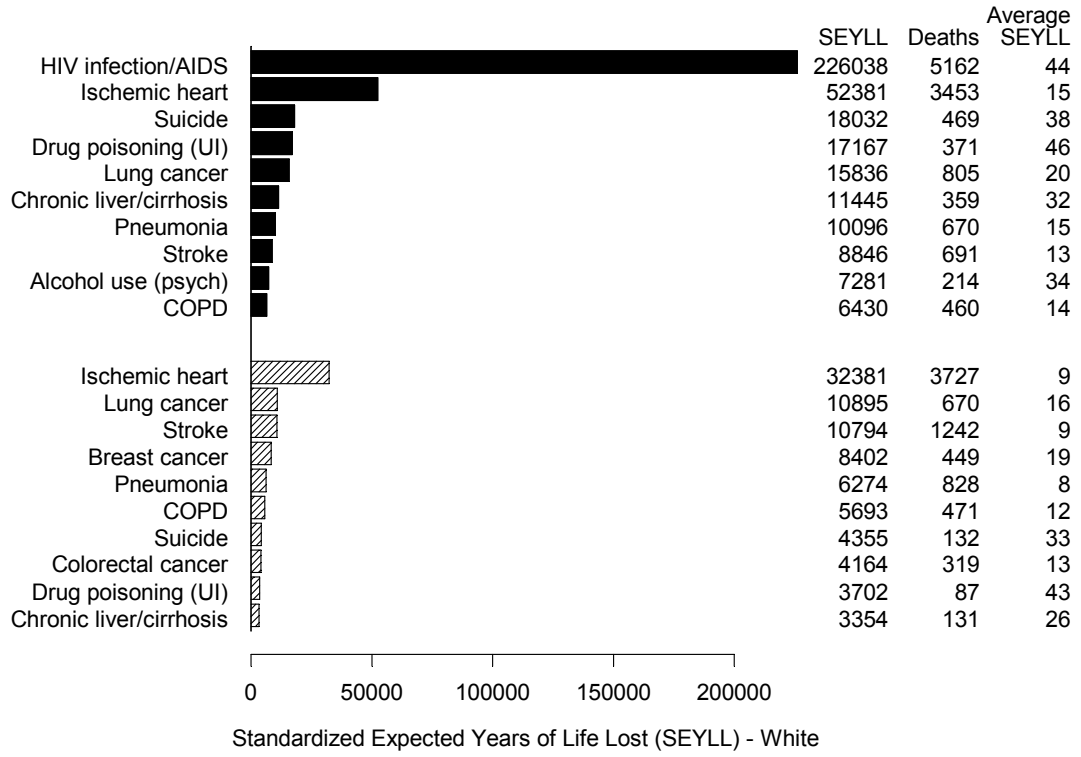


Figure 27: Leading causes of death for White males (top) and females (bottom), 1990-1995. For all causes, there were 17 972 male deaths (SEYLL = 489 287 years) and 12 520 female deaths (SEYLL = 156 398 years). The 1990 Census population estimate was 338 923 (46.8% of total population).

Among White males: AIDS was the leading cause of death, representing 46.2% of the 489 287 expected years of life lost from all causes, followed by ischemic heart disease (10.7%), and together accounted for over 57% of years of life lost . The most premature causes were drug poisoning, AIDS, suicide, alcohol use (psychiatric diagnosis) and cirrhosis, causing an average of 46, 44, and 38, 34 and 32 expected years of life lost per death, respectively. Injuries were the third and fourth leading cause of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, pneumonia, stroke, and chronic obstructive pulmonary disease), alcohol with five (suicide, drug poisoning, cirrhosis, stroke, alcohol use [psychiatric diagnosis]), drug use with five (AIDS, suicide, drug poisoning, cirrhosis, stroke) and diet/physical inactivity with two (ischemic heart disease, stroke).

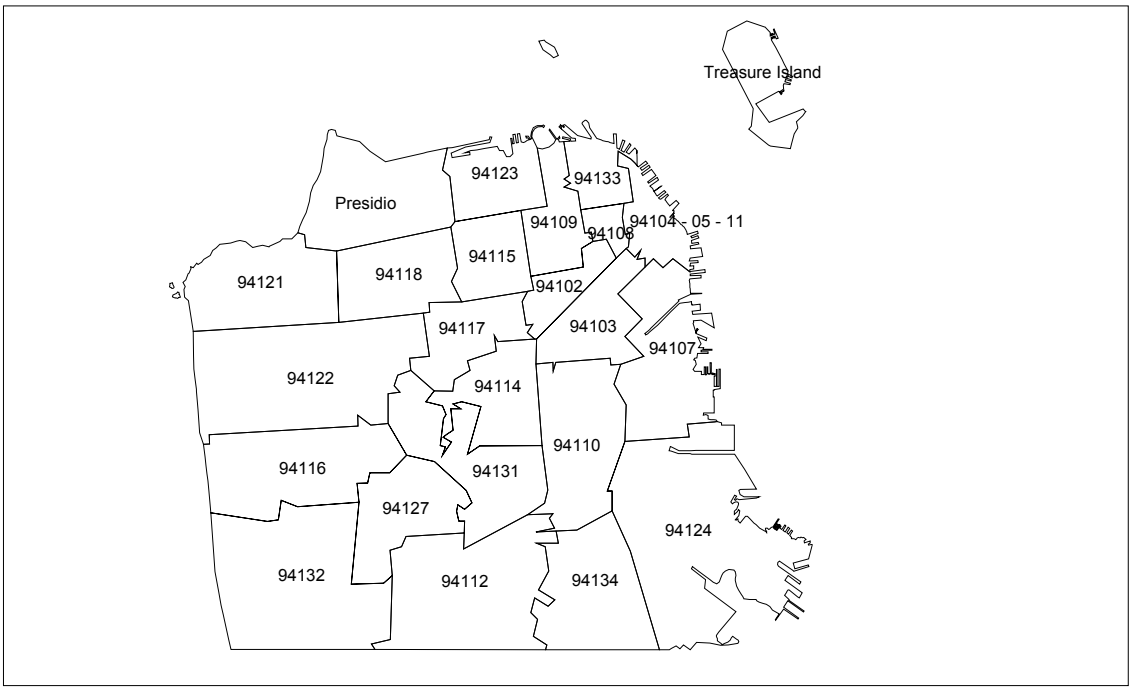
Among White females: Ischemic heart disease was the leading cause of death, representing 20.7% of the 156 398 expected years of life lost from all causes. The most premature causes were drug poisoning and suicide, causing an average of 43 and 33 expected years of life lost per death, respectively. Injuries were the seventh and ninth leading causes of death. Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, chronic obstructive pulmonary disease, and colorectal cancer), alcohol with seven (stroke, breast cancer, pneumonia, chronic obstructive pulmonary disease, colorectal cancer, drug poisoning, cirrhosis), drug use with four (stroke, suicide, drug poisoning, cirrhosis) and diet/physical inactivity with five (ischemic heart disease, stroke, breast cancer, diabetes mellitus, colorectal cancer).

3.7 Neighborhood profiles

Table 46: San Francisco Neighborhoods by ZIP code and 1990 Census Population

ZIP code	Neighborhood	African American	Asian /P.I.	Latino	White	Other	Total
94102	Hayes Valley / Tenderloin / N. of Market	5 566	6 625	2 625	11 769	208	26 793
94103	South of Market	2 000	4 561	4 784	6 275	193	17 813
94107	Potrero Hill	2 428	1 723	1 222	6 519	85	11 977
94108	Chinatown	279	8 803	243	4 902	3	14 230
94109	Polk/Russian Hill	1 780	16 005	2 996	28 429	272	49 482
94110	Inner Mission / Bernal Heights	3 788	10 258	33 791	22 702	579	71 118
94104*	Rincon / Telegraph Hill / Embarcadero	357	1 307	276	3 838	52	5 830
94112	Ingleside-Excelsior / Crocker-Amazon	7 000	22 341	17 984	16 490	456	64 271
94114	Castro, Noe Valley	874	2 161	3 317	24 117	108	30 577
94115	Western Addition / Japantown	7 755	4 158	1 227	15 406	114	28 660
94116	Parkside	513	16 950	2 184	19 637	140	39 424
94117	Haight-Ashbury	7 394	3 234	2 292	25 067	324	38 311
94118	Inner Richmond	1 068	15 064	1 513	20 472	211	38 328
94121	Outer Richmond	847	18 940	1 902	18 726	144	40 559
94122	Sunset	1 109	21 470	3 020	26 961	268	52 828
94123	Marina	232	2 033	1 048	19 946	38	23 297
94124	Bayview-Hunters Point	17 192	5 315	2 187	2 335	76	27 105
94127	St. Francis Wood, Miraloma / Seaside	802	3 759	1 170	12 021	85	17 837
94131	Twin Peaks-Glen Park	1 905	4 448	4 169	19 951	152	30 625
94132	Lake Merced	4 292	5 821	1 554	11 911	89	23 667
94133	North Beach / Chinatown	545	16 712	811	9 245	18	27 331
94134	Visitacion Valley / Sunnydale	7 571	14 628	5 520	6 547	337	34 603
Other	Presidio-94129, Treasure Island-94130	1 647	1 141	805	5 657	49	9 299
	Total	76 944	207 457	96 640	338 923	4 001	723 965

*Includes ZIP codes 94105 and 94111.



San Francisco is composed of many local neighborhoods. There is no common agreement on how to draw neighborhood boundaries and, in any case, they shift over time with migration, housing and commercial changes, and development practices. We divided the City into local areas based on United Postal ZIP codes. ZIP code areas are fairly large and stable, many neighborhoods are roughly approximated by their ZIP codes, permanently housed residents know their ZIP codes, and ZIP codes are the smallest geographic area commonly available in health data (including mortality data used in these analyses).

San Francisco neighborhoods, ZIP codes, and 1990 census population by ethnicity are summarized in Table 46. An accompanying map shows the geographic boundaries. Three small downtown ZIP code areas were combined: 94104, 94105, and 94111; all together they constitute the smallest area. Two others, 94129 (Presidio) and 94130 (Treasure Island), were military bases that closed in the 1990s; these were categorized as "other."

San Francisco's overall 13 leading causes of death (includes the top ten leading causes for males and females) were ranked in each ZIP code based on standard expected years of life lost (SEYLL) (Tables 47 and 48). For example, for males in ZIP code 94121 (Outer Richmond), AIDS was the second leading cause of death, ischemic heart disease was the first leading cause, drug poisoning was 14th, and so on. Chronic liver disease was not among the top 20 causes of premature death for males in that ZIP code.

These tables can be read across, by row, to review the ranking of these specific causes for a given neighborhood, or down, by column, to see the relative importance to premature mortality of a given cause across the neighborhoods of San Francisco. For example, male suicide is among the top 10 causes in all but one ZIP (94134, where it is cause number 11), but among females is not among the top 10 in 10 areas (out of 22), including four in which it is not even in the top 20. Ischemic heart disease was the leading cause of death in every ZIP code for females, and ranked first or second in every ZIP code among males. AIDS was also ranked the first or second leading cause of death among males in every ZIP code, while among females it was among the top 10 in only nine ZIP codes and it is not among the top 20 in seven. ZIP code 94124 (Bayview Hunters-Point) was the only neighborhood where homicide was the first leading cause of death among males.

One thousand sixty-six deaths occurred to persons with an unknown ZIP code: 786 male deaths and 280 female deaths. We do not know at this time to what extent the leading causes of death in this groups is representative of persons who were homeless when they died.

Following the summary Tables 47 and 48 are profiles of each neighborhood area, as defined by ZIP code. The narrative summary links the neighborhood's leading causes of death to the underlying contributing factors presented in the prevention attribution matrixes (Tables 6-7, pages 24-25). In considering the possible roles of these determinants to leading causes of premature mortality for a specific neighborhoods, readers may want to refer back to these tables and the other discussions of attributable factors in this report.

Table 47: Ranking of Leading Causes of Deaths by Zip Code, Male Residents 1990-1995

ZIP code	SEYLL	Deaths	AIDS	HEART DISEASE	LUNG CANCER	STROKE	DRUG POISON	SUICIDE	HOMICIDE	PNEUMONIA	CHRONIC LIVER	COPD	MOTOR VEHICLE	COLON CANCER
All Males	776 759	28 613	1	2	3	7	4	5	6	9	8	11	10	13
94102	74 482	2 255	1	2	7	10	3	6	9	8	4	11	14	17
94103	38 526	1 196	1	2	8	11	3	4	7	9	6	10	12	17
94107	20 113	636	1	2	7	11	3	5	4	13	6	20	16	12
94108	10 766	548	1	2	4	5	8	3	*	7	9	6	13	10
94109	66 536	2 418	1	2	4	7	5	3	10	6	8	9	17	14
94110	68 597	2 214	1	2	7	9	4	5	3	10	6	14	8	16
94104, 94105, 94111	5 475	214	1	2	3	5	6	4	10	9	7	12	8	15
94112	45 039	2 072	2	1	4	6	13	7	3	8	10	11	5	9
94114	91 868	2 408	1	2	4	11	8	3	12	7	6	13	*	20
94115	36 198	1 325	1	2	3	7	5	6	4	8	9	11	12	14
94116	28 465	1 500	2	1	3	4	5	6	13	9	12	8	14	7
94117	53 320	1 528	1	2	6	9	4	3	5	8	7	15	12	16
94118	19 146	929	1	2	3	4	7	5	10	9	16	6	8	17
94121	22 179	1 133	2	1	3	4	14	5	9	6	*	10	18	7
94122	28 770	1 493	2	1	3	4	11	6	13	7	9	10	5	8
94123	10 151	552	1	2	3	4	*	5	18	6	10	14	7	8
94124	28 754	1 012	2	3	4	5	7	9	1	10	13	18	8	19
94127	12 511	608	1	2	3	4	9	8	18	14	16	10	13	12
94131	32 737	1 095	1	2	4	7	10	3	9	5	6	11	18	20
94132	15 138	819	2	1	3	4	15	7	5	6	10	9	20	8
94133	16 370	926	2	1	3	4	13	7	15	6	9	5	8	12
94134	22 464	926	2	1	6	4	7	11	3	9	10	15	5	13
Unknown	28 151	786	1	3	11	17	2	5	4	9	6	13	8	*

* Not among 20 leading causes

SEYLL = standard expected years of life lost; AIDS = Acquired Immunodeficiency Syndrome, Heart disease = Ischemic heart disease, Drug poison = drug poisoning from unintentional drug overdose, Chronic Liver = Chronic liver disease/cirrhosis, COPD = Chronic Obstructive Pulmonary Disease, Motor Vehicle = Motor Vehicle-Traffic, Colon cancer = Colorectal cancer

Table 48: Ranking of Leading Causes of Deaths by Zip Code, Female Residents 1990-1995

ZIP code	SEYLL	Deaths	AIDS	HEART DISEASE	LUNG CANCER	STROKE	DRUG POISON	SUICIDE	HOMICIDE	PNEUMONIA	CHRONIC LIVER	COPD	MOTOR VEHICLE	COLON CANCER	BREAST CANCER
All Females	291 450	19 811	6	1	3	2	10	9	16	5	11	8	12	7	4
94102	13 201	599	2	1	4	5	3	7	14	8	6	11	15	10	9
94103	7 231	382	12	1	7	3	2	8	5	6	4	11	15	13	9
94107	4 773	283	9	1	7	3	2	*	10	6	13	11	14	19	4
94108	5 380	442	16	1	3	2	*	*	*	4	19	11	*	6	5
94109	22 046	1 681	12	1	3	2	16	6	*	5	8	9	14	7	4
94110	23 360	1 280	12	1	5	2	6	10	14	7	15	11	9	8	4
94104, 94105, 94111	1 683	118	*	1	5	6	*	3	*	14	13	10	*	9	8
94112	28 000	2 044	13	1	4	2	19	7	8	5	18	11	17	6	3
94114	8 115	560	6	1	2	3	9	12	11	5	19	7	8	*	4
94115	16 712	1 144	4	1	3	2	13	10	11	5	12	6	*	8	7
94116	18 277	1 479	10	1	3	2	13	10	*	5	12	6	*	8	4
94117	11 405	642	13	1	3	2	5	7	12	9	8	6	10	11	4
94118	12 345	1 001	*	1	3	2	16	17	*	5	14	8	6	11	4
94121	14 642	1 150	*	1	4	2	18	5	*	8	*	6	12	7	3
94122	19 954	1 544	15	1	3	2	20	8	*	6	14	5	12	7	4
94123	7 603	674	*	1	3	2	*	20	*	5	18	6	7	10	4
94124	17 071	796	4	1	5	3	8	*	6	12	17	20	13	16	2
94127	8 094	638	*	1	2	3	*	9	*	5	*	8	*	6	4
94131	8 230	524	*	1	2	4	12	5	*	8	10	6	*	9	3
94132	11 291	880	7	1	4	2	*	15	*	6	18	8	10	5	3
94133	10 850	877	*	1	3	2	*	13	*	5	12	7	9	6	4
94134	14 360	781	4	1	3	2	8	*	9	6	13	10	7	11	5
Unknown	6 287	280	7	1	8	4	3	13	2	12	5	9	6	11	14

* Not among 20 leading causes

SEYLL = standard expected years of life lost; AIDS = Acquired Immunodeficiency Syndrome, Heart disease = Ischemic heart disease, Drug poison = drug poisoning from unintentional drug overdose, Chronic Liver = Chronic liver disease/cirrhosis, COPD = Chronic Obstructive Pulmonary Disease, Motor Vehicle = Motor Vehicle-Traffic, Colon cancer = Colorectal cancer

3.7.1 Hayes Valley/Tenderloin/North of Market (94102)

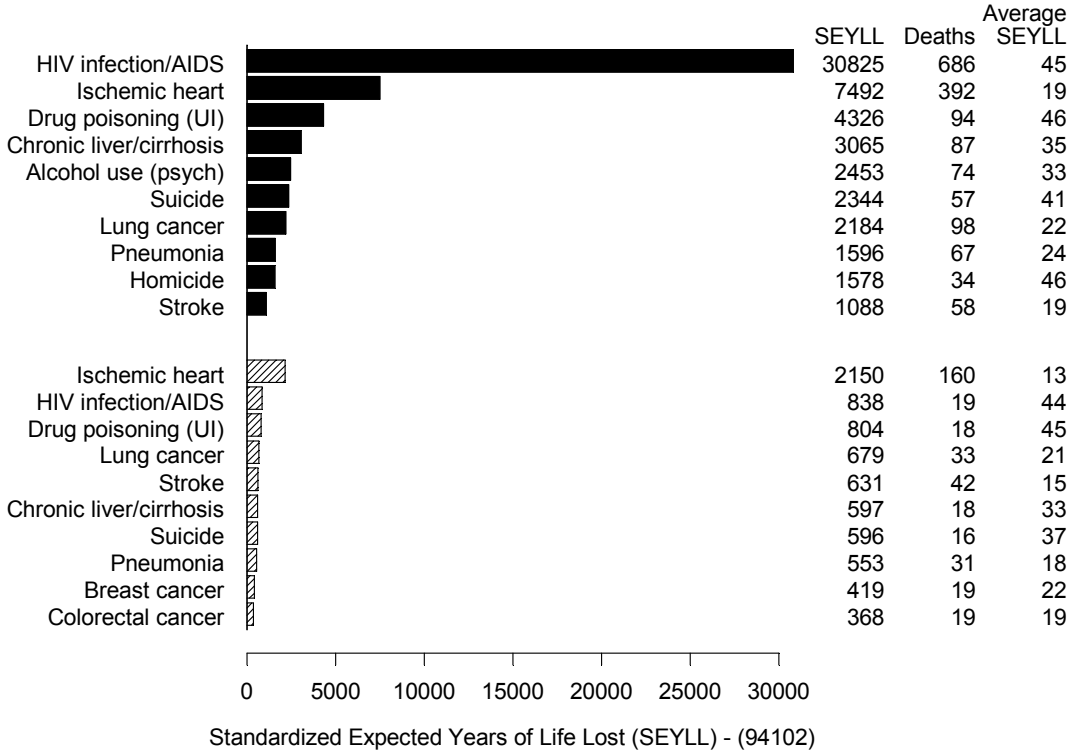


Figure 28: Leading causes of death for Hayes Valley/Tenderloin/N. of Market (94102) males (top) and females (bottom), 1990-1995. For all causes, there were 2 255 male deaths (SEYLL = 74 482 years) and 599 female deaths (SEYLL = 13 201 years). The 1990 Census population estimate was 26 793 (3.7% of total population).

Among males in 94102: AIDS was the leading cause of death, representing 41.4% of the 74 482 expected years of life lost from all causes, followed by ischemic heart disease (10.1%), drug poisoning (5.8%) and cirrhosis (4.1%), and together accounted for over 60% of years of life lost . The most premature causes were drug poisoning, homicide, AIDS, and suicide, causing an average of 46, 46, 45, and 41 expected years of life lost per death, respectively. Injuries were the third, sixth, and ninth leading cause of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, pneumonia, and stroke), alcohol with seven (drug poisoning, cirrhosis, alcohol use [psychiatric diagnosis], suicide, pneumonia, homicide, stroke), drug use with six (AIDS, drug poisoning, cirrhosis, suicide, homicide, stroke) and diet/physical inactivity with two (ischemic heart disease, stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 16.3% of the 13 201 expected years of life lost from all causes, followed by AIDS (6.4%), and drug poisoning (6.1%), together accounted for over one-fourth of years of life lost. The most premature causes were drug poisoning, AIDS, suicide and cirrhosis, causing an average of 45, 44, 37 and 33 expected years of life lost per death, respectively. Injuries were the third and seventh leading cause of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, and colorectal cancer), alcohol with six (drug poisoning, stroke, cirrhosis, pneumonia, breast cancer, colorectal cancer), drug use with five (AIDS, drug poisoning, stroke, cirrhosis, suicide) and diet/physical inactivity with five (ischemic heart disease, stroke, lung and breast cancer, colorectal cancer).

3.7.2 South of Market (94103)

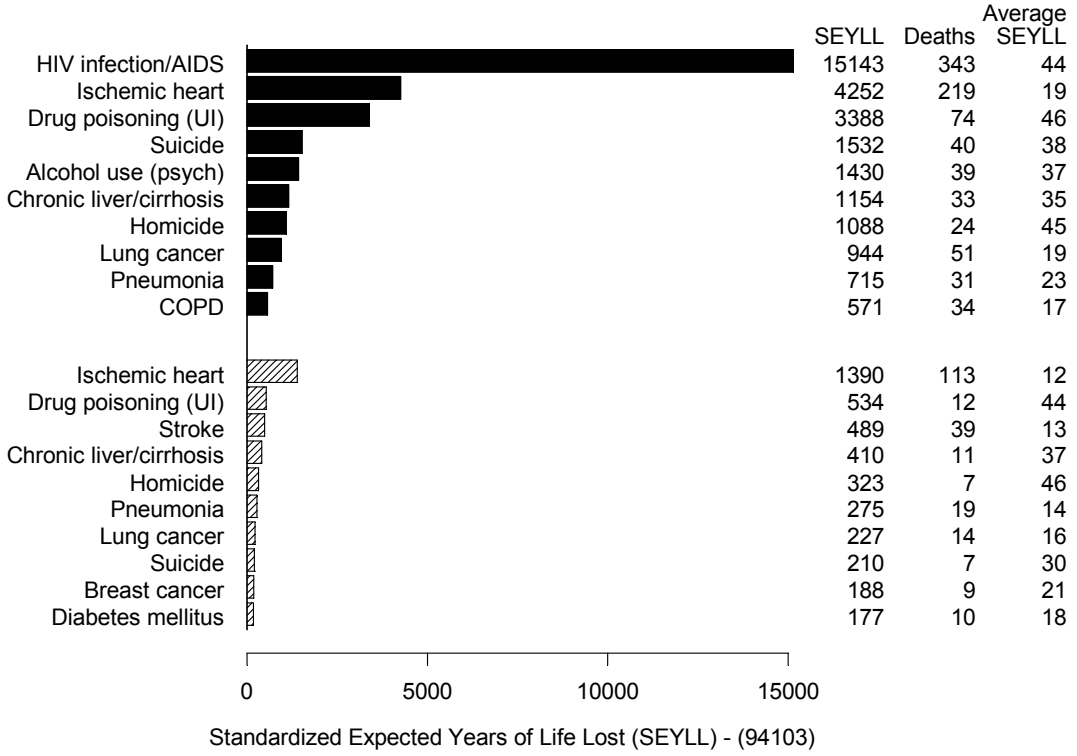


Figure 29: Leading causes of death for South of Market (94103) males (top) and females (bottom), 1990-1995. For all causes, there were 1 196 male deaths (SEYLL = 38 526 years) and 382 female deaths (SEYLL = 7 231 years). The 1990 Census population estimate was 17 813 (2.5% of total population).

Among males in 94103: AIDS was the leading cause of death, representing 39.3% of the 38 526 expected years of life lost from all causes, followed by ischemic heart disease (11.0%), drug poisoning (8.8%), and suicide (4.0%). The most premature causes were drug poisoning, homicide, AIDS, suicide, alcohol use (psychiatric diagnosis), and cirrhosis, causing an average of 46, 45, 44, 38, 37 and 35 expected years of life lost per death, respectively. Injuries were the third, fourth, and seventh leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, pneumonia, and chronic obstructive pulmonary disease), alcohol with six (drug poisoning, suicide, alcohol use [psychiatric diagnosis], cirrhosis, homicide, pneumonia), drug use with six (AIDS, drug poisoning, suicide, alcohol use [psychiatric diagnosis], cirrhosis, homicide) and diet/physical inactivity with two (ischemic heart disease, lung cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 19.2% of the 7 231 expected years of life lost from all causes, followed by drug poisoning (7.4%), stroke (6.8%) and cirrhosis (5.7%). The most premature causes were homicide, drug poisoning, and cirrhosis, causing an average of 46, 44, and 37 expected years of life lost per death, respectively. Injuries were the second, fifth, and eighth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, stroke, pneumonia, lung cancer), alcohol with seven (drug poisoning, stroke, cirrhosis, homicide, pneumonia, suicide, breast cancer), drug use with five (drug poisoning, stroke, cirrhosis, homicide, suicide) and diet/physical inactivity with five (ischemic heart disease, stroke, lung and breast cancer, diabetes mellitus).

3.7.3 Potrero Hill (94107)

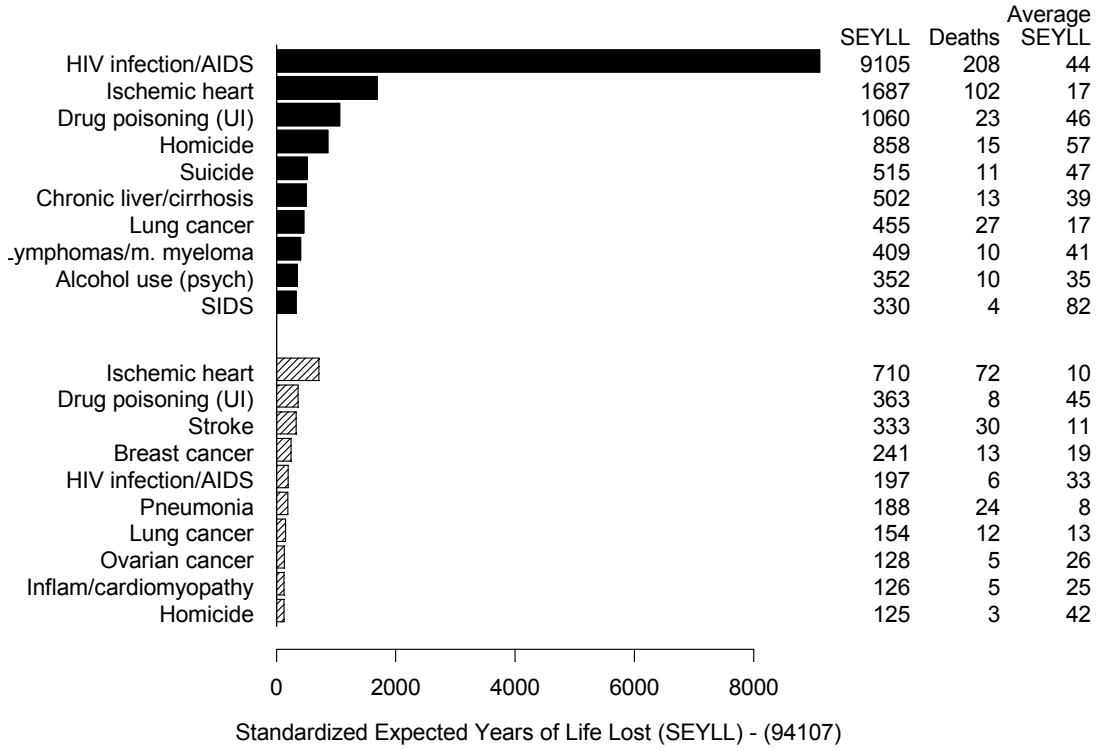


Figure 30: Leading causes of death for Potrero Hill (94107) males (top) and females (bottom), 1990-1995. For all causes, there were 636 male deaths (SEYLL = 20 113 years) and 283 female deaths (SEYLL = 4 773 years). The 1990 Census population estimate was 11 977 (1.7% of total population).

Among males in 94107: AIDS was the leading cause of death, representing 45.3% of the 20 113 expected years of life lost from all causes. AIDS, ischemic heart disease (8.4%), and drug poisoning (5.3%) accounted for 59% of all expected years of life lost. The most premature causes were sudden infant deaths syndrome (SIDS), homicide, suicide, drug poisoning and AIDS, causing an average of 82, 57, 47, 46 and 44 expected years of life lost per death, respectively. Injuries were the third, fourth, and fifth leading causes of death. Tobacco was associated with three leading causes (ischemic heart disease, lung cancer, SIDS), alcohol with five (drug poisoning, homicide, suicide, cirrhosis, alcohol use [psychiatric diagnosis]), drug use with six (AIDS, drug poisoning, homicide, suicide, cirrhosis, alcohol use/psychiatric) and diet/physical inactivity with one (ischemic heart disease).

Among females: Ischemic heart disease was the leading cause of death, representing 14.9% of the 4 773 expected years of life lost from all causes. Ischemic heart disease, drug poisoning (7.6%), stroke (7.0%) and breast cancer (5.0%) accounted for 35% of all expected years of life lost. The most premature causes were drug poisoning, homicide, and AIDS, causing an average of 45, 42, and 33 expected years of life lost per death. Injuries were the second and tenth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, stroke, pneumonia, lung cancer), alcohol with six (drug poisoning, stroke, breast cancer, pneumonia, cardiomyopathy, homicide), drug use with five (drug poisoning, stroke, AIDS, cardiomyopathy, homicide) and diet/physical activity with four (ischemic heart disease, stroke, breast cancer, cardiomyopathy).

3.7.4 Chinatown (94108)

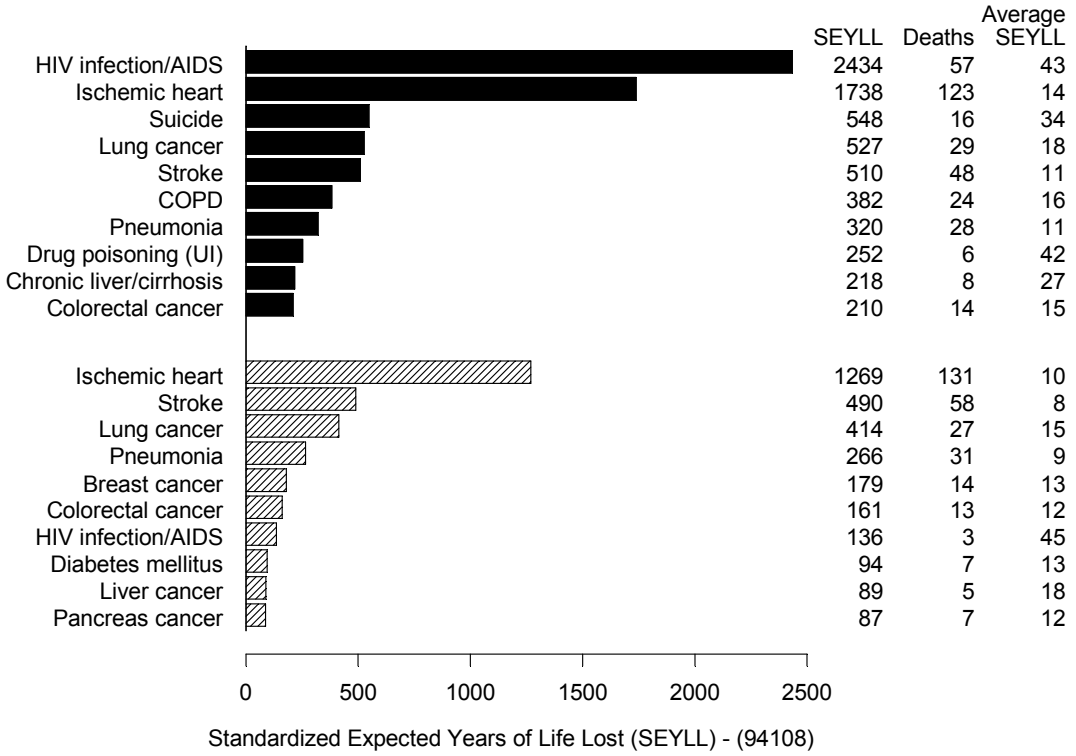


Figure 31: Leading causes of death for Chinatown (94108) males (top) and females (bottom), 1990-1995. For all causes, there were 548 male deaths (SEYLL = 10 766 years) and 442 female deaths (SEYLL = 5 380 years). The 1990 Census population estimate was 14 230 (2.0% of total population).

Among males in 94108: AIDS was the leading cause of death, representing 22.6% of the 10 766 expected years of life lost from all causes. AIDS, ischemic heart disease (16.1%) and suicide (5.1%) accounted for 44% of all expected years of life lost . The most premature causes were AIDS, drug poisoning, and suicide, causing an average of 43, 42 and 34 expected years of life lost per death, respectively. Injuries were the third and eighth leading cause of death. Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease, pneumonia, colorectal cancer), alcohol with six (suicide, stroke, pneumonia, drug poisoning, cirrhosis, colorectal cancer), drug use with five (AIDS, suicide, stroke, drug poisoning, cirrhosis) and diet/physical inactivity with three (ischemic heart disease, stroke, colorectal cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 23.6% of the 5 380 expected years of life lost from all causes. Ischemic heart disease, stroke (9.1%), and lung cancer (7.7%) together accounted for 40% of all expected years of life lost . The most premature cause was AIDS, causing an average of 45 expected years of life lost per death. No injuries were among the leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, colorectal cancer), alcohol with five (stroke, pneumonia, and breast, colorectal and liver cancer), drug use with two (stroke, AIDS) and diet and physical inactivity with five (ischemic heart disease, stroke, breast and colorectal cancers, and diabetes mellitus).

3.7.5 Polk/Russian Hill (94109)

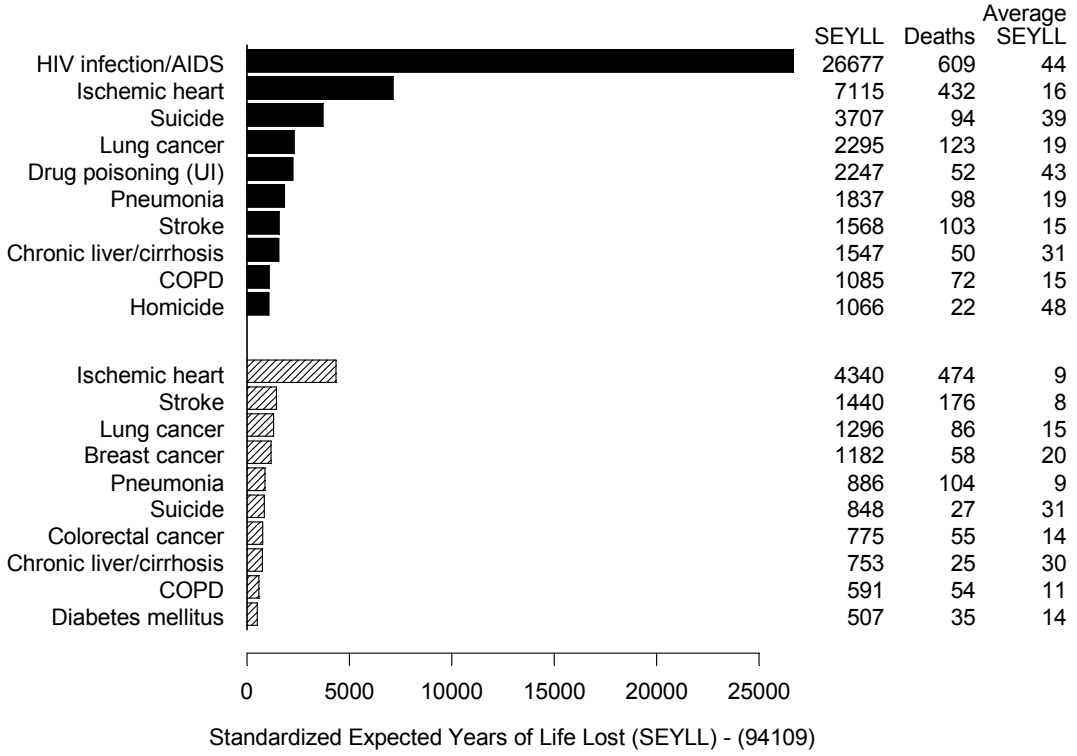


Figure 32: Leading causes of death for Polk/Russian Hill (94109) males (top) and females (bottom), 1990-1995. For all causes, there were 2 418 male deaths (SEYLL = 66 536 years) and 1 681 female deaths (SEYLL = 22 046 years). The 1990 Census population estimate was 49 482 (6.8% of total population).

Among males in 94109: AIDS was the leading cause of death, representing 40.1% of the 66 536 expected years of life lost from all causes. AIDS, ischemic heart disease (10.7%), and suicide (5.1%) accounted for 56% of all expected years of life lost . The most premature causes were homicide, AIDS, drug poisoning, and suicide, causing an average of 48, 44, 43, and 39 expected years of life lost per death, respectively. Injuries were the third, fifth and tenth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, pneumonia, stroke, chronic obstructive pulmonary disease), alcohol with six (suicide, drug poisoning, pneumonia, stroke, cirrhosis, homicide), drug use with six (AIDS, suicide, drug poisoning, stroke, cirrhosis, homicide) and diet/physical inactivity with two (ischemic heart disease, stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 19.7% of the 22 046 expected years of life lost from all causes. Ischemic heart disease, stroke (6.5%), lung cancer (5.9%) and breast cancer (5.4%) accounted for 38% of all expected years of life lost . The most premature causes were suicide and cirrhosis, causing an average of 31 and 30 expected years of life lost per death, respectively. Injuries were the seventh leading cause of death (suicide). Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, colorectal cancer), alcohol with five (stroke, breast cancer, pneumonia, colorectal cancer, and cirrhosis), drug use with two (stroke, suicide), and diet/physical inactivity with five (ischemic heart disease, stroke, breast and colorectal cancers, and diabetes mellitus).

3.7.6 Inner Mission/Bernal Heights (94110)

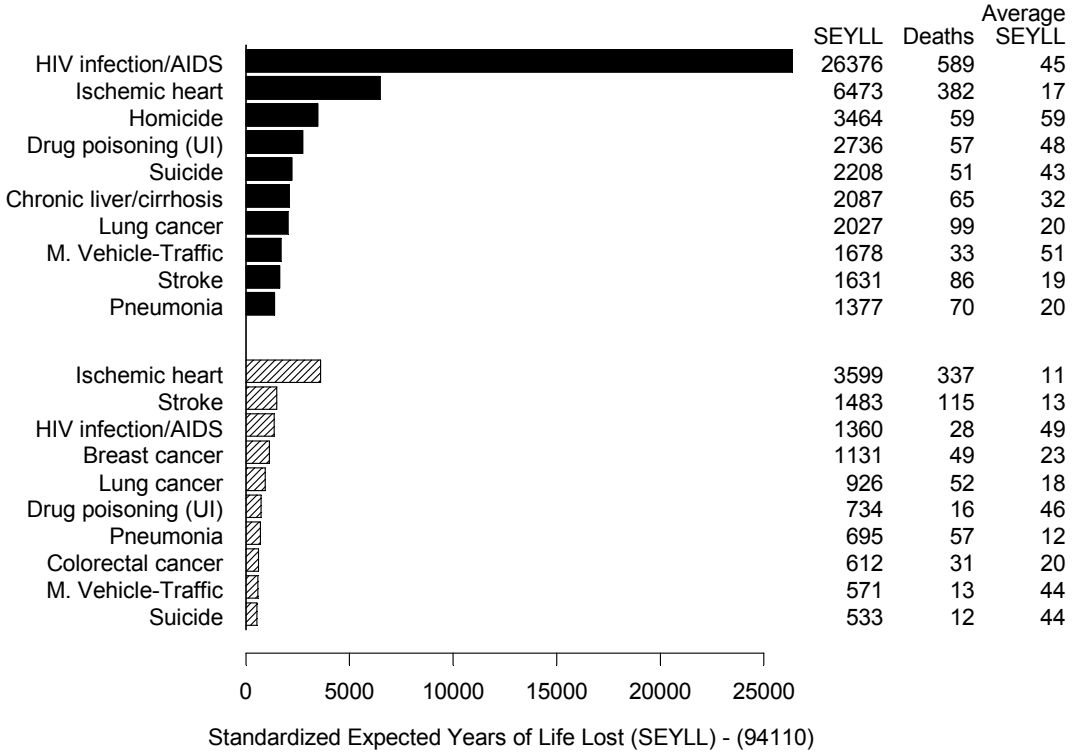


Figure 33: Leading causes of death for Inner Mission/Bernal Heights (94110) males (top) and females (bottom), 1990-1995. For all causes, there were 2 214 male deaths (SEYLL = 68 597 years) and 1 280 female deaths (SEYLL = 23 360 years). The 1990 Census population estimate was 71 118 (9.8% of total population).

Among males in 94110: AIDS was the leading cause of death, representing 38.5% of the 68 597 expected years of life lost from all causes, followed by ischemic heart disease (9.4%), and homicide (5.0%). The most premature causes were homicide, MV-traffic, drug poisoning, AIDS, and suicide, causing an average of 59, 51, 48, 45, and 43 expected years of life lost per death, respectively. Injuries were the third, fourth, fifth, and eighth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, stroke, pneumonia), alcohol with seven (homicide, drug poisoning, suicide, cirrhosis, MV-traffic, stroke, pneumonia), drug use with seven (AIDS, homicide, drug poisoning, suicide, cirrhosis, MV-traffic, stroke,) and diet/physical inactivity with two (ischemic heart disease, stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 15.4% of the 23 360 expected years of life lost from all causes, followed by stroke (6.3%) and AIDS (5.8%). The most premature causes were AIDS, drug poisoning, MV-traffic, and suicide, causing an average of 49, 46, 44 and 44 expected years of life lost per death, respectively. Injuries were the sixth, ninth and tenth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, colorectal cancer), alcohol with seven (stroke, breast cancer, drug poisoning, pneumonia, colorectal cancer, MV-traffic, suicide), drug use with five (stroke, AIDS, drug poisoning, MV-traffic, suicide) and diet/physical inactivity with four (ischemic heart disease, stroke, breast and colorectal cancer).

3.7.7 Rincon/Telegraph Hill/Embarcadero (94104, -05, -11)

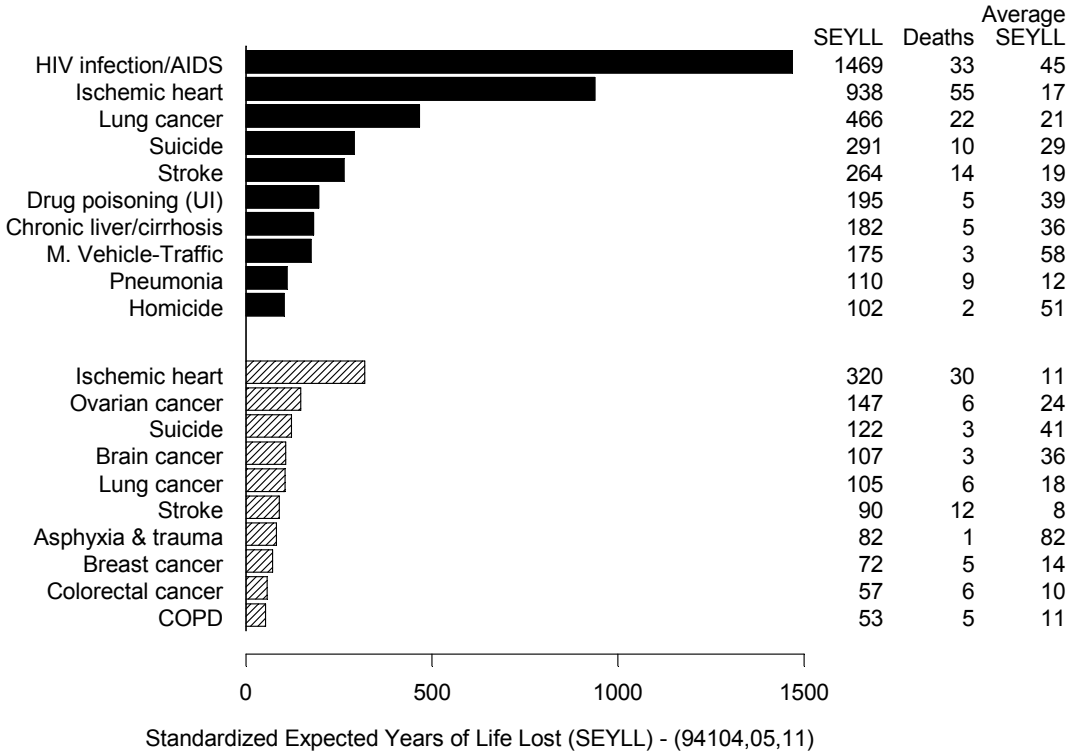


Figure 34: Leading causes of death for Rincon/Telegraph Hill/Embarcadero (94104, -05, -11) males (top) and females (bottom), 1990-1995. For all causes, there were 214 male deaths (SEYLL = 5 475 years) and 118 female deaths (SEYLL = 1 683 years). The 1990 Census population estimate was 5 830 (0.8% of total population).

Among males in 94104/05/11: AIDS was the leading cause of death, representing 26.8% of the 5 475 expected years of life lost from all causes, followed by ischemic heart disease (17.1%), lung cancer (8.5%) and suicide (5.3%). The most premature causes were MV–traffic, homicide, AIDS, and drug poisoning, causing an average of 58, 51, 45, and 39 expected years of life lost per death, respectively. Injuries were the fourth, sixth, eighth and tenth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, stroke, pneumonia), alcohol with seven (suicide, stroke, drug poisoning, cirrhosis, motor vehicle–traffic, pneumonia, homicide), drug use with seven (AIDS, suicide, stroke, drug poisoning, cirrhosis, motor vehicle–traffic, homicide), and diet/physical inactivity with two (ischemic heart disease, stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 18.9% of the 1 683 expected years of life lost from all causes, followed by ovarian cancer (8.7%) . The most premature causes were birth trauma (one death), suicide and brain cancer (three deaths each), which caused an average of 82, 41 and 36 expected years of life lost per death, respectively. Injuries were the third leading cause of death (suicide). Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, colorectal cancer, chronic obstructive pulmonary disease), alcohol with four (suicide, stroke, breast cancer, colorectal cancer), drug use with two (suicide, stroke), and diet/physical inactivity with four (ischemic heart disease, stroke, breast cancer, colorectal cancer).

3.7.8 Ingleside-Excelsior/Crocker-Amazon (94112)

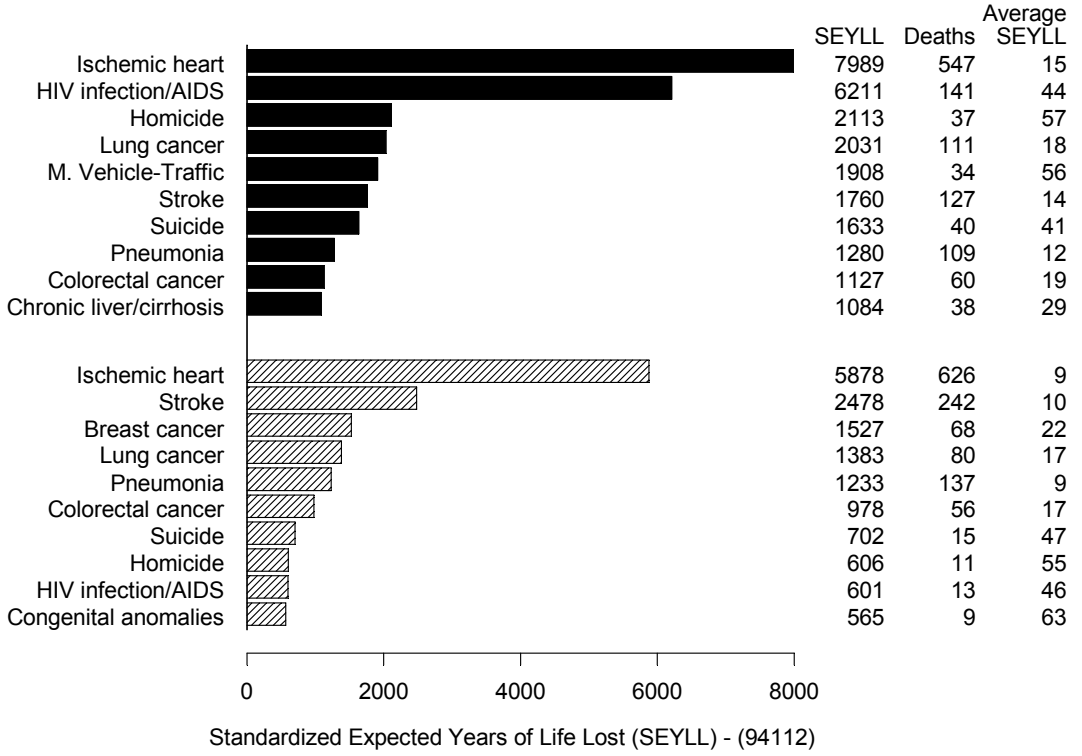


Figure 35: Leading causes of death for Ingleside-Excelsior/Crocker-Amazon (94112) males (top) and females (bottom), 1990-1995. For all causes, there were 2 072 male deaths (SEYLL = 45 039 years) and 2 044 female deaths (SEYLL = 28 000 years). The 1990 Census population estimate was 64 318 (8.9% of total population).

Among males in 94112: Ischemic heart disease was the leading cause of death, representing 17.7% of the 45 039 expected years of life lost from all causes. Ischemic heart disease and AIDS (13.8%) accounted for one-third of all expected years of life lost . The most premature causes were homicide, MV-traffic, AIDS, and suicide, causing an average of 57, 56, 44 and 41 expected years of life lost per death, respectively. Injuries were the third, fifth and seventh leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, colorectal cancer), alcohol with seven (homicide, MV-traffic, stroke, suicide, pneumonia, colorectal cancer, cirrhosis), drug use with six (AIDS, homicide, MV-traffic, stroke, suicide, cirrhosis) and diet/physical inactivity with three (ischemic heart disease, stroke, colorectal cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 21% of the 28 000 expected years of life lost from all causes. Ischemic heart disease, stroke (8.8%), and breast cancer (5.5%) together accounted for 35% of all expected years of life lost . The most premature causes were congenital anomalies, homicide, suicide and AIDS, causing an average of 63, 55, 47 and 46 expected years of life lost per death, respectively. Injuries were the seventh and eighth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, colorectal cancer), alcohol with six (stroke, breast cancer, pneumonia, colorectal cancer, suicide, homicide), drug use with four (stroke, suicide, homicide, AIDS), and diet/physical inactivity with four (ischemic heart disease, stroke, breast cancer, colorectal cancer).

3.7.9 Castro, Noe Valley (94114)

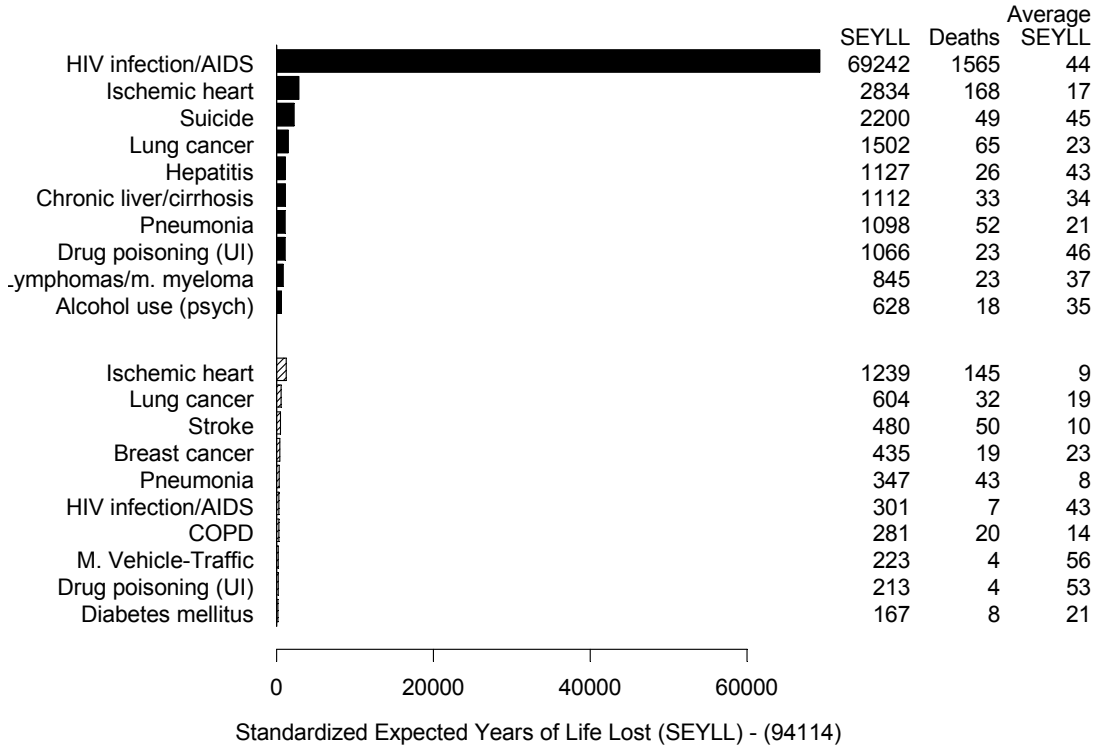


Figure 36: Leading causes of death for Castro, Noe Valley (94114) males (top) and females (bottom), 1990-1995. For all causes, there were 2 408 male deaths (SEYLL = 91 868 years) and 560 female deaths (SEYLL = 8 115 years). The 1990 Census population estimate was 30 577 (4.2% of total population).

Among males in 94114: AIDS deaths represented 75.4% of the 91 868 expected years of life lost from all causes. AIDS, ischemic heart disease (3.1%), and suicide (2.4%) accounted for 81% of all expected years of life lost . The most premature causes were drug poisoning, suicide, AIDS, hepatitis, lymphomas, alcohol use (psychiatric diagnosis), and cirrhosis, which caused an average of 46, 45, 44, 43, 37, 35, and 34 expected years of life lost per death, respectively. Injuries were the third and sixth leading causes of death. Tobacco was associated with three leading causes (ischemic heart disease, lung cancer, pneumonia), alcohol with five (suicide, cirrhosis, pneumonia, drug poisoning, alcohol use [psychiatric diagnosis]), drug use with five (AIDS, suicide, hepatitis, cirrhosis, drug poisoning), and diet/physical inactivity with one (ischemic heart disease).

Among females: Ischemic heart disease was the leading cause of death, representing 15.3% of the 8 115 expected years of life lost from all causes. Ischemic heart disease, lung cancer (7.4%), stroke (5.9%) and breast cancer (5.4%) accounted for a one-third of all expected years of life lost . The most premature causes were MV-traffic, drug poisoning, and AIDS, causing an average of 56, 53, and 43 expected years of life lost per death, respectively. Injuries were the eighth leading cause of death (MV-traffic). Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, chronic obstructive pulmonary disease), alcohol with five (stroke, breast cancer, pneumonia, MV-traffic, drug poisoning), drug use with four (stroke, AIDS, MV-traffic, drug poisoning) and diet/physical inactivity with four (ischemic heart disease, stroke, breast cancer, diabetes mellitus).

3.7.10 Western Addition/Japantown (94115)

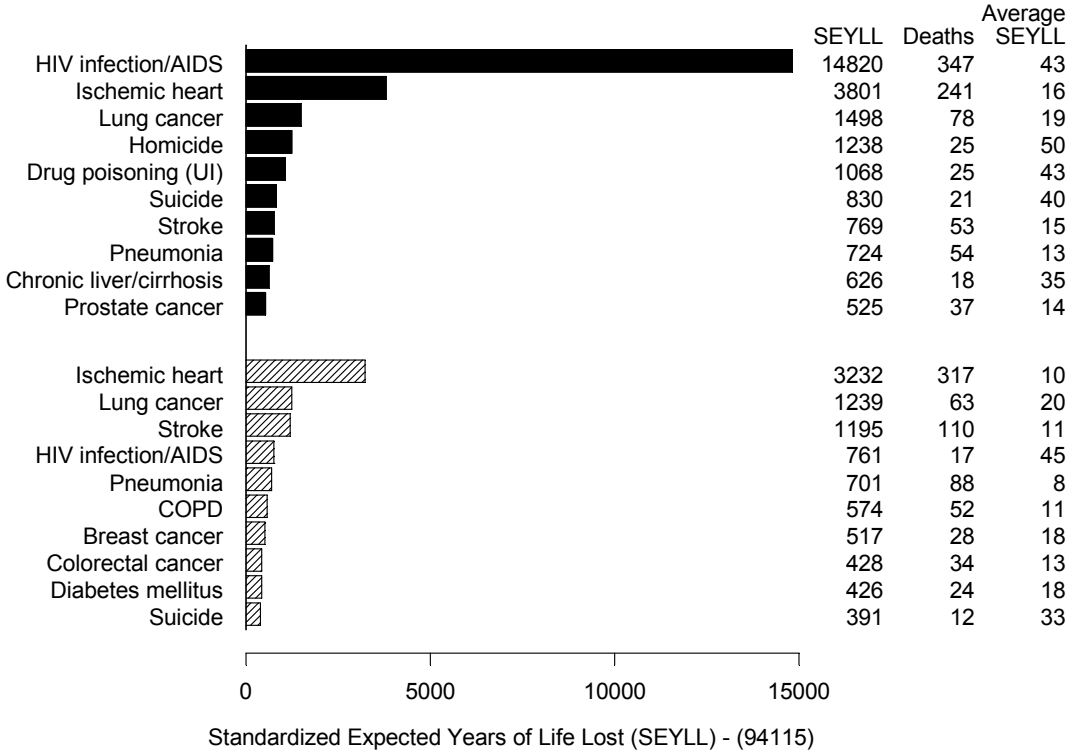


Figure 37: Leading causes of death for Western Addition/Japantown (94115) males (top) and females (bottom), 1990-1995. For all causes, there were 1325 male deaths (SEYLL = 36 198 years) and 1 144 female deaths (SEYLL = 16 712 years). The 1990 Census population estimate was 28 660 (4.0% of total population).

Among males in 94115: AIDS was the leading cause of death, representing 40.9% of the 36 198 expected years of life lost from all causes. AIDS and ischemic heart disease (10.5%) accounted for 51% of all expected years of life lost . The most premature causes were homicide, AIDS, drug poisoning,suicide, and cirrhosis, causing an average of 50, 43, 43, 40, and 35 expected years of life lost per death, respectively. Injuries were the fourth, fifth, and sixth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, stroke, pneumonia), alcohol with six (homicide, drug poisoning, suicide, stroke, pneumonia, cirrhosis), drug use with six (AIDS, homicide, drug poisoning, suicide, stroke, cirrhosis), and diet/physical inactivity with three (ischemic heart disease, stroke, prostate cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 19.3% of the 16 712 expected years of life lost from all causes. Ischemic heart disease, lung cancer (7.4%), and stroke (7.1%) accounted for a third of all expected years of life lost . The most premature causes were AIDS and suicide, causing an average of 45 and 33 expected years of life lost per death, respectively. Injuries were the tenth leading cause of death (suicide). Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, chronic obstructive pulmonary disease, colorectal cancer), alcohol with five (stroke, pneumonia, breast and colorectal cancer, suicide), drug use with three (stroke, AIDS, suicide), and diet/physical inactivity with four (ischemic heart disease, stroke, breast cancer, diabetes mellitus).

3.7.11 Parkside (94116)

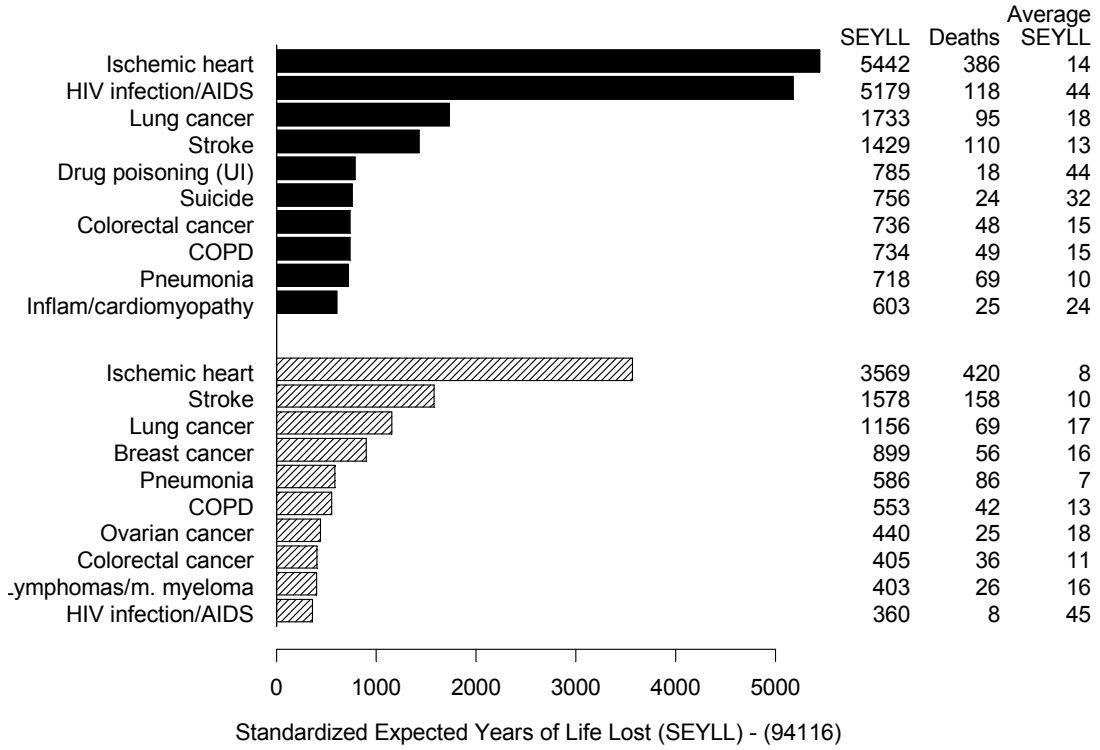


Figure 38: Leading causes of death for Parkside (94116) males (top) and females (bottom), 1990-1995. For all causes, there were 1 500 male deaths (SEYLL = 28 465 years) and 1 479 female deaths (SEYLL = 18 227 years). The 1990 Census population estimate was 39 424 (5.4% of total population).

Among males in 94116: Ischemic heart disease the leading cause of death, representing 19.1% of the 28 465 expected years of life lost from all causes. Ischemic heart disease (19.1%), AIDS (18.2%), lung cancer (6.1%), and stroke (5.0%) accounted for 48% of all expected years of life lost . The most premature causes were AIDS, drug poisoning, and suicide, causing an average of 44, 44 and 32 expected years of life lost per death, respectively. Injuries were the fifth and sixth leading causes of death. Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, colorectal cancer, chronic obstructive pulmonary disease, pneumonia), alcohol with six (stroke, drug poisoning, suicide, colorectal cancer, pneumonia, cardiomyopathy), drug use with five (AIDS, stroke, drug poisoning, suicide, cardiomyopathy), and diet/physical inactivity with four (ischemic heart disease, stroke, colorectal cancer, cardiomyopathy).

Among females: Ischemic heart disease was the leading cause of death, representing 19.5% of the 18 227 expected years of life lost from all causes. Ischemic heart disease, stroke (8.6%), and lung cancer (6.3%) accounted for 34% of all expected years of life lost . The most premature cause was AIDS, causing an average of 45 expected years of life lost per death. There were no injury causes among the ten leading causes of death. Tobacco was associated with six leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, chronic obstructive pulmonary disease, colorectal cancer), alcohol with four (stroke, breast cancer, pneumonia, colorectal cancer), drug use with two (stroke, AIDS), and diet/physical inactivity with four (ischemic heart disease, stroke, breast and colorectal cancer).

3.7.12 Haight-Ashbury (94117)

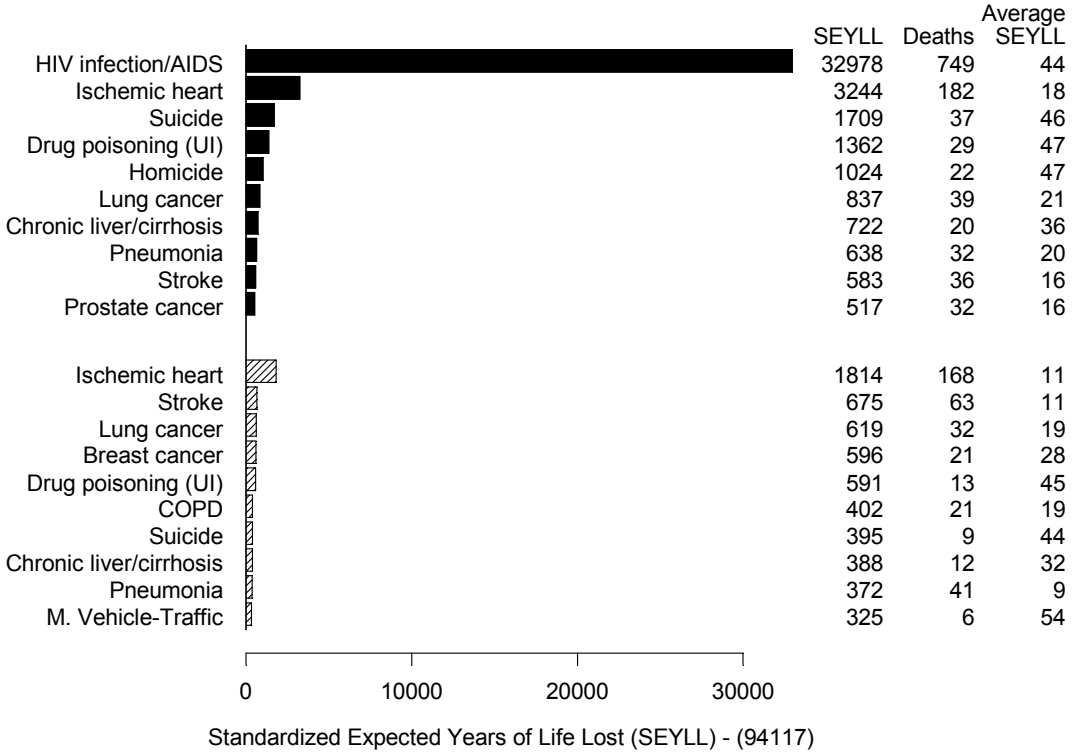


Figure 39: Leading causes of death for Haight-Ashbury (94117) males (top) and females (bottom), 1990-1995. For all causes, there were 1 528 male deaths (SEYLL = 53 320 years) and 642 female deaths (SEYLL = 11 405 years). The 1990 Census population estimate was 38 311 (5.3% of total population).

Among males in 94117: AIDS was the leading cause of death, representing 61.8% of the 53 320 expected years of life lost from all causes. AIDS, ischemic heart disease (6.1%), suicide (3.2%), and drug poisoning (2.6%) accounted for 74% of all expected years of life lost . The most premature causes were drug poisoning, homicide, suicide, and AIDS, causing an average of 47, 47, 46, and 44 expected years of life lost per death, respectively. Injuries were the third, fourth, and fifth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, pneumonia, stroke), alcohol with six (suicide, drug poisoning, homicide, cirrhosis, pneumonia, stroke), drug use with six (AIDS, suicide, drug poisoning, homicide, cirrhosis, stroke) and diet/physical inactivity with three (ischemic heart disease, stroke, prostate cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 15.9% of the 11 405 expected years of life lost from all causes. Ischemic heart disease, stroke (5.9%), lung cancer (5.4%), breast cancer (5.2%), and poisoning (5.2%) accounted for 38% of all expected years of life lost . The most premature causes were MV-traffic, drug poisoning, and suicide, causing an average of 54, 45, and 44 expected years of life lost per death, respectively. Injuries were the fifth, seventh, and tenth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, chronic obstructive pulmonary disease, pneumonia), alcohol with seven (stroke, breast cancer, drug poisoning, suicide, cirrhosis, pneumonia, MV-traffic), drug use with five (stroke, drug poisoning, suicide, cirrhosis, MV-traffic), and diet/physical inactivity with three (ischemic heart disease, stroke, breast cancer).

3.7.13 Inner Richmond (94118)

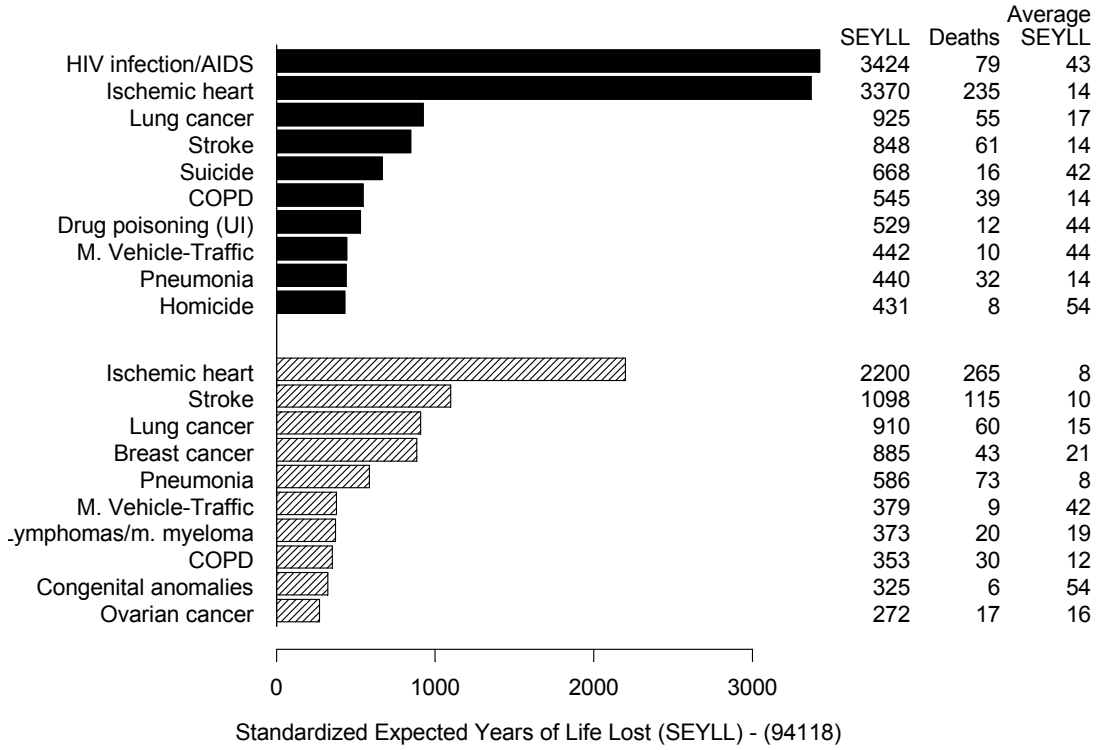


Figure 40: Leading causes of death for Inner Richmond (94118) males (top) and females (bottom), 1990-1995. For all causes, there were 929 male deaths (SEYLL = 19 146 years) and 1 001 female deaths (SEYLL = 12 345 years). The 1990 Census population estimate was 38 328 (5.3% of total population).

Among males in 94118: AIDS was the leading cause of death, representing 17.9% of the 19 146 standard expected years of life lost from all causes. AIDS and ischemic heart disease (17.6%) accounted for 35% of all expected years of life lost . The most premature causes were homicide, drug poisoning, MV-traffic, AIDS, and suicide, causing an average of 54, 44, 44, 43, and 42 expected years of life lost per death, respectively. Injuries were the fifth, seventh, eighth, and tenth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease, pneumonia), alcohol with six (stroke, suicide, drug poisoning, MV-traffic, pneumonia, homicide), drug use with six (AIDS, stroke, suicide, drug poisoning, MV-traffic, homicide) and diet/physical inactivity with two (ischemic heart disease, stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 17.8% of the 12 345 standard expected years of life lost from all causes. Ischemic heart disease, stroke (8.9%), lung cancer (7.4%), and breast cancer (7.2%) accounted for 41% of all expected years of life lost . The most premature causes were congenital anomalies and MV-traffic, causing an average of 54 and 42 expected years of life lost per death, respectively. Injuries were the sixth leading cause of death (MV-traffic). Tobacco was associated with four leading causes (ischemic heart disease, stroke, pneumonia, chronic obstructive pulmonary disease), alcohol with four (stroke, breast cancer, pneumonia, MV-traffic), drug use with two (stroke, MV-traffic), and diet/physical inactivity with three (ischemic heart disease, stroke, breast cancer).

3.7.14 Outer Richmond (94121)

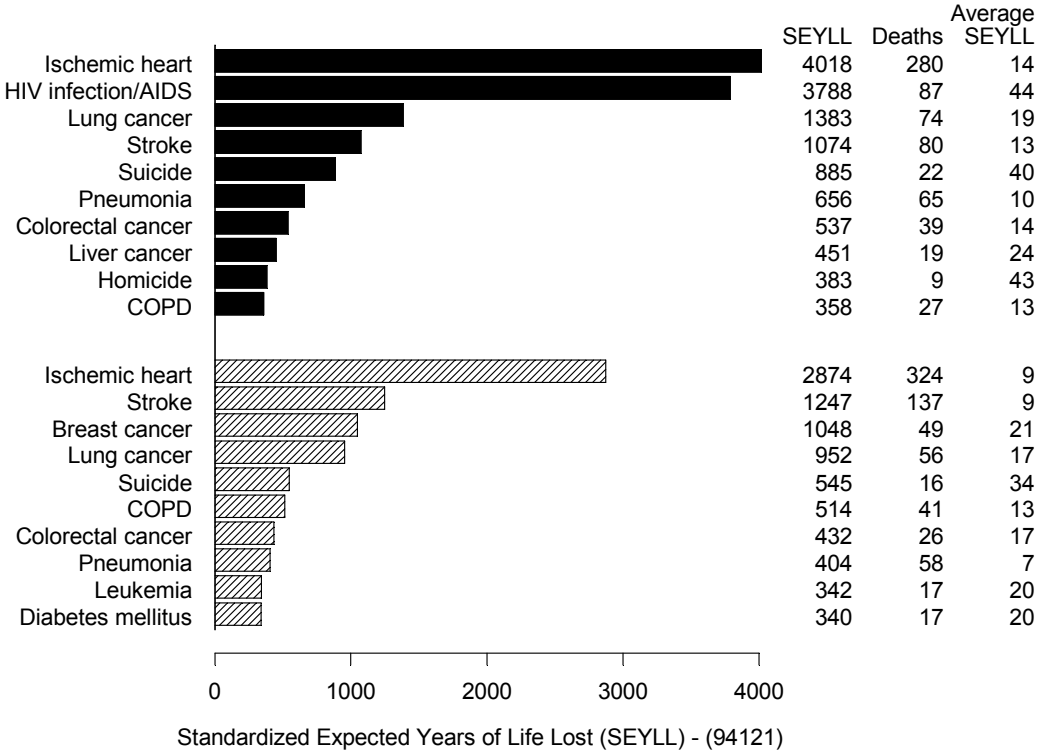


Figure 41: Leading causes of death for Outer Richmond (94121) males (top) and females (bottom), 1990-1995. For all causes, there were 1 133 male deaths (SEYLL = 22 179 years) and 1 150 female deaths (SEYLL = 14 642 years). The 1990 Census population estimate was 40 559 (5.6% of total population).

Among males in 94121: Ischemic heart disease was the leading cause of death, representing 18.1% of the 22 179 expected years of life lost from all causes. Ischemic heart disease, AIDS (17.1%), lung cancer (6.2%), stroke (4.8%), and suicide (4%) accounted for one-half of all expected years of life lost . The most premature causes were AIDS, homicide, and suicide, causing an average of 44, 43, and 40 expected years of life lost per death, respectively. Injuries were the fifth and ninth leading causes of death. Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, colorectal cancer, chronic obstructive pulmonary disease), alcohol with six (stroke, suicide, pneumonia, colorectal and liver cancer, homicide), drug use with four (AIDS, stroke, suicide, homicide) and diet/physical inactivity with three (ischemic heart disease, stroke, colorectal cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 19.6% of the 14 642 expected years of life lost from all causes. Ischemic heart disease, stroke (8.5%), breast cancer (7.2%), and lung cancer (6.5%) accounted for 42% of all expected years of life lost . The most premature cause was suicide, causing an average of 34 expected years of life lost per death. Injuries were the fifth leading cause of death (suicide). Tobacco was associated with six leading causes (ischemic heart disease, stroke, lung cancer, chronic obstructive pulmonary disease, colorectal cancer, pneumonia), alcohol with five (stroke, breast cancer, suicide, colorectal cancer, pneumonia) drug use with two (stroke, suicide), and diet/physical inactivity with five (ischemic heart disease, stroke, breast and colorectal cancer, diabetes mellitus).

3.7.15 Sunset (94122)

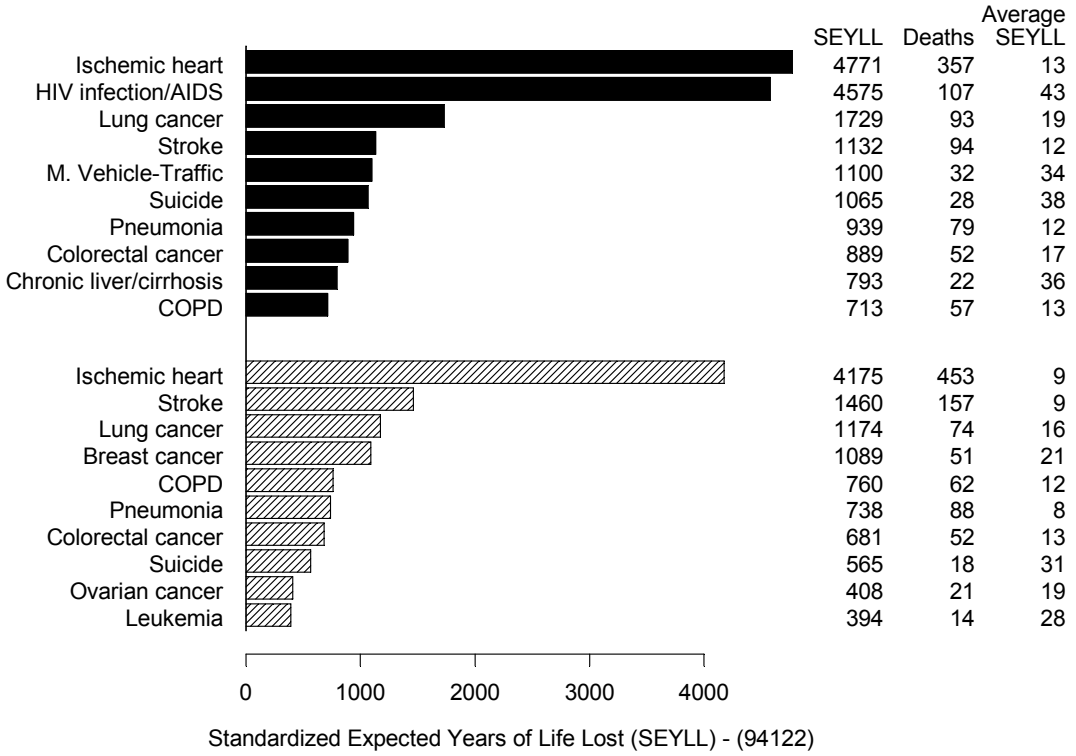


Figure 42: Leading causes of death for Sunset (94122) males (top) and females (bottom), 1990-1995. For all causes, there were 1 493 male deaths (SEYLL = 28 770 years) and 1 544 female deaths (SEYLL = 19 954 years). The 1990 Census population estimate was 52 828 (7.3% of total population).

Among males in 94122: Ischemic heart disease was the leading cause of death, representing 16.6% of the 28 770 expected years of life lost from all causes. Ischemic heart disease, AIDS (15.9%), and lung cancer (6%) accounted for 38% of all expected years of life lost . The most premature causes were AIDS, suicide, cirrhosis, and MV-traffic, causing an average of 43, 38, 36, and 34 expected years of life lost per death, respectively. Injuries were the fifth and sixth leading causes of death. Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, colorectal cancer, chronic obstructive pulmonary disease), alcohol with six (stroke, MV-traffic, suicide, pneumonia, colorectal cancer, cirrhosis), drug use with four (AIDS, stroke, suicide, cirrhosis) and diet/physical inactivity with three (ischemic heart disease, stroke, colorectal cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 20.9% of the 19 954 expected years of life lost from all causes. Ischemic heart disease, stroke (7.3%), lung cancer (5.9%), and breast cancer (5.5%) accounted for 40% of all expected years of life lost . The most premature cause was suicide, causing an average of 31 expected years of life lost per death. Injuries were the eighth leading cause of death (suicide). Tobacco was associated with six leading causes (ischemic heart disease, stroke, lung cancer, chronic obstructive pulmonary disease, pneumonia,colorectal cancer), alcohol with five (stroke, breast cancer, pneumonia, colorectal cancer, suicide) drug use with two (stroke and suicide), and diet/physical inactivity with four (ischemic heart disease, stroke, breast and colorectal cancer).

3.7.16 Marina (94123)

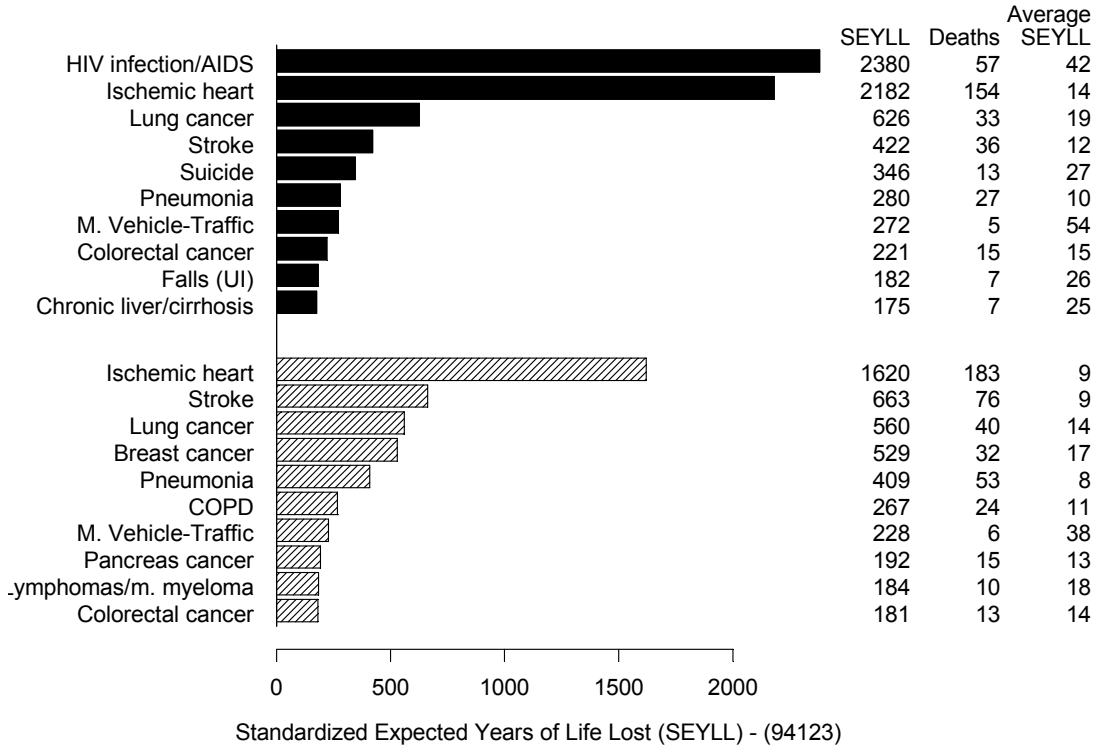


Figure 43: Leading causes of death for Marina (94123) males (top) and females (bottom), 1990-1995. For all causes, there were 552 male deaths (SEYLL = 10 151 years) and 674 female deaths (SEYLL = 7 603 years). The 1990 Census population estimate was 23 297 (3.2% of total population).

Among males in 94123: AIDS was the leading cause of death, representing 23.4% of the 10 151 expected years of life lost from all causes. AIDS and ischemic heart disease (21.5%) accounted for 45% of all expected years of life lost . The most premature causes were MV-traffic and AIDS, causing an average of 54 and 42 expected years of life lost per death, respectively. Injuries were the fifth, seventh, and ninth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, colorectal cancer), alcohol with six (stroke, suicide, pneumonia, MV-traffic, colorectal cancer, falls), drug use with five (AIDS, stroke, suicide, MV-traffic, falls), and diet/physical inactivity with three (ischemic heart disease, stroke, colorectal cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 21.3% of the 7 603 expected years of life lost from all causes. Ischemic heart disease, stroke (8.7%), lung cancer (7.3%), and breast cancer (7%) accounted for 44% of all expected year of life lost . The most premature cause was MV-traffic, causing an average of 38 expected years of life lost per death. Injury was the seventh leading cause of death (MV-traffic). Tobacco was associated with six leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, chronic obstructive pulmonary disease, pancreas cancer), alcohol with five (stroke, breast cancer, pneumonia, MV-traffic, colorectal cancer), drug use with two (stroke and MV-traffic), and diet/physical inactivity with four (ischemic heart disease, stroke, breast and colorectal cancer).

3.7.17 Bayview-Hunters Point (94124)

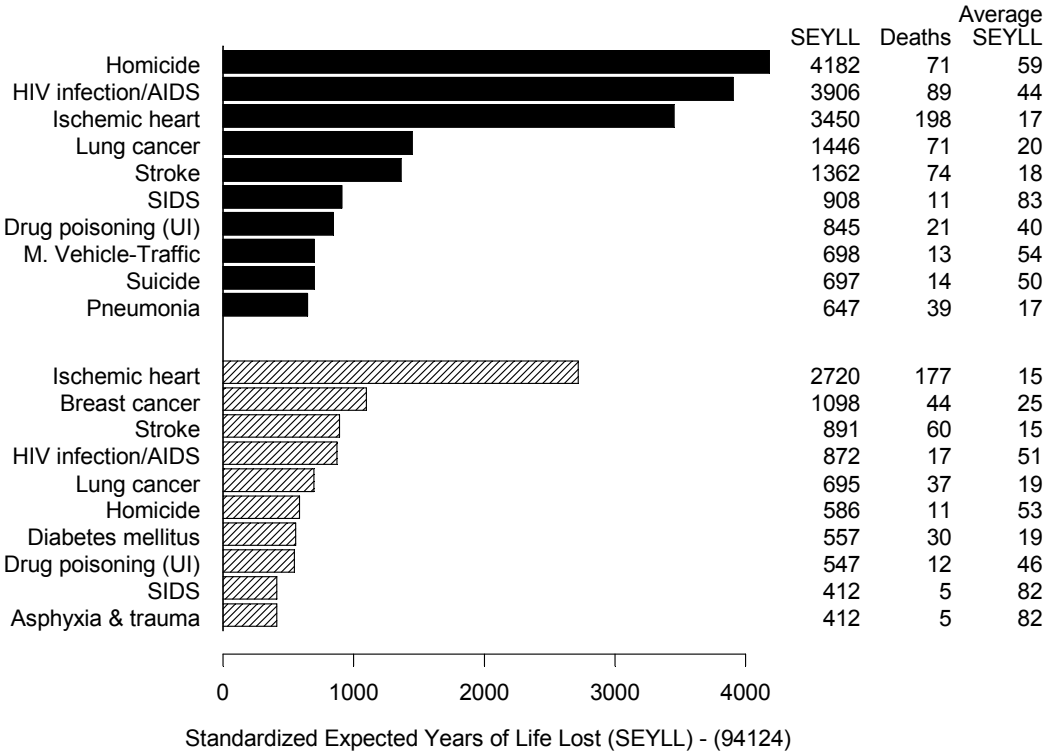


Figure 44: Leading causes of death for Bayview-Hunters Point (94124) males (top) and females (bottom), 1990-1995. For all causes, there were 1 012 male deaths (SEYLL = 28 754 years) and 796 female deaths (SEYLL = 17 071 years). The 1990 Census population estimate was 27 105 (3.7% of total population).

Among males in 94124: Homicide was the leading cause of death, representing 14.5% of the 28 754 expected years of life lost from all causes, followed by AIDS (13.6%) and ischemic heart disease (12%). The most premature causes were sudden infant death syndrome (SIDS), homicide, MV-traffic, suicide, AIDS, and drug poisoning, causing an average of 83, 59, 54, 50, 44, and 40 expected years of life lost per death, respectively. Injuries were the first, seventh, eighth, and ninth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, SIDS, pneumonia), alcohol with six (homicide, stroke, drug poisoning, MV-traffic, suicide, pneumonia), drug use with six (homicide, AIDS, stroke, drug poisoning, MV-traffic, suicide), and diet/physical inactivity with two (ischemic heart disease and stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 15.9% of the 17 071 expected years of life lost from all causes, followed by breast cancer (6.4%), stroke (5.2%), and AIDS (5.1%). The most premature causes were SIDS, birth asphyxia & trauma, homicide, and drug poisoning, causing an average of 82, 82, 53, 51, and 46 expected years of life lost per death, respectively. Injuries were the sixth, eighth, and tenth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, stroke, lung cancer, SIDS), alcohol with four (breast cancer, stroke, homicide, drug poisoning), drug use with four (AIDS, stroke, homicide, drug poisoning), and diet/physical inactivity with four (ischemic heart disease, breast cancer, stroke, diabetes mellitus).

3.7.18 St. Francis Wood, Miraloma/Seaside (94127)

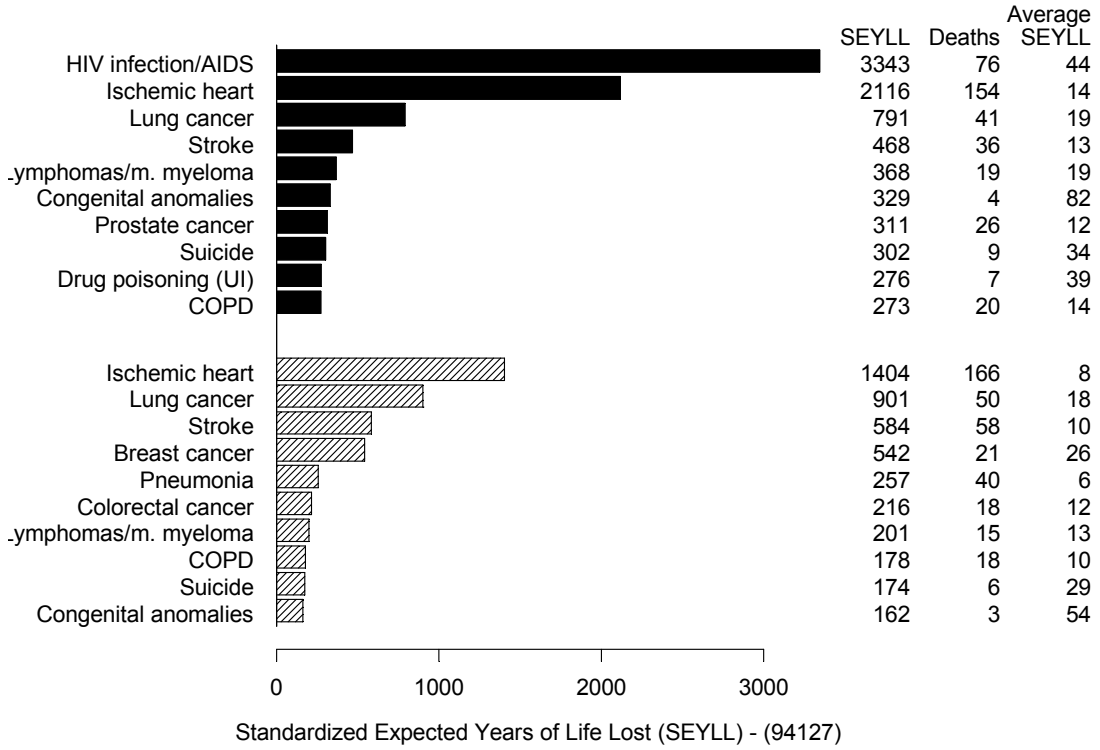


Figure 45: Leading causes of death forSt. Francis Wood, Miraloma/Seaside (94127) males (top) and females (bottom), 1990-1995. For all causes, there were 608 male deaths (SEYLL = 12 511 years) and 638 female deaths (SEYLL = 8 094 years). The 1990 Census population estimate was 17 837 (2.5% of total population).

Among males in 94127: AIDS was the leading cause of death, representing 26.7% of the 12 511 expected years of life lost from all causes. AIDS, ischemic heart disease (16.9%), and lung cancer (6.3%) accounted for one-half of all expected years of life lost . The most premature causes were congenital anomalies, AIDS, drug poisoning, and suicide, causing an average of 82, 44, 39, and 34 expected years of life lost per death, respectively. Injuries were the eighth and ninth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease), alcohol with four (stroke, prostate cancer, suicide, drug poisoning), drug use with four (AIDS, stroke, suicide, drug poisoning) and diet/physical inactivity with three (ischemic heart disease, stroke, prostate cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 17.3% of the 8 094 expected years of life lost from all causes. Ischemic heart disease, lung cancer (11.1%), stroke (7.2%), and breast cancer (6.7%) accounted for 42% of all expected years of life lost . The most premature cause was congenital anomalies, causing an average of 54 expected years of life lost per death. Injuries were the ninth leading causes of death (suicide). Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, colorectal cancer, chronic obstructive pulmonary disease), alcohol with five (stroke, breast cancer, pneumonia, colorectal cancer, suicide), drug use with two (stroke and suicide), and diet/physical inactivity with four (ischemic heart disease, stroke, breast and colorectal cancer).

3.7.19 Twin Peaks-Glen Park (94131)

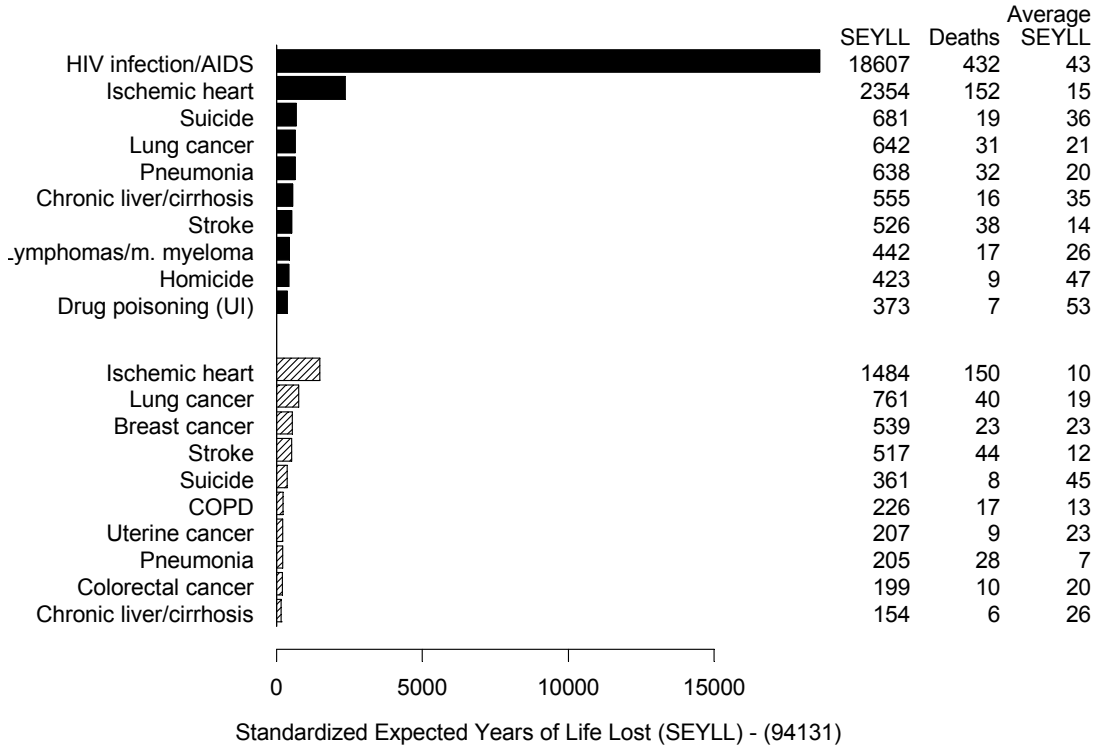


Figure 46: Leading causes of death for Twin Peaks-Glen Park (94131) males (top) and females (bottom), 1990-1995. For all causes, there were 1 095 male deaths (SEYLL = 32 737 years) and 524 female deaths (SEYLL = 8 230 years). The 1990 Census population estimate was 30 625 (4.2% of total population).

Among males in 94131: AIDS was the leading cause of death, representing 56.8% of the 32 737 expected years of life lost from all causes. AIDS and ischemic heart disease (7.2%) accounted for 64% of all expected years of life lost . The most premature causes were drug poisoning, homicide, and AIDS, which caused an average of 53, 47, and 43 expected years of life lost per death, respectively. Injuries were the third, ninth, and tenth leading causes of death. Tobacco was associated with four leading causes (ischemic heart disease, lung cancer, pneumonia, stroke), alcohol with six (suicide, pneumonia, cirrhosis, stroke, homicide, drug poisoning), drug use with six (AIDS, suicide, stroke, cirrhosis, homicide, drug poisoning) and diet/physical inactivity with two (ischemic heart disease and stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 18% of the 8 230 expected years of life lost from all causes. Ischemic heart disease and lung cancer (9.2%) accounted for 27% of all expected years of life lost . The most premature cause was suicide, causing an average of 45 expected years of life lost per death. Injuries were the fifth leading causes of death (suicide). Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease, pneumonia, colorectal cancer), alcohol with six (breast cancer, stroke, suicide, pneumonia, colorectal cancer, cirrhosis), drug use with three (stroke, suicide, cirrhosis), and diet/physical inactivity with five (ischemic heart disease, breast cancer, stroke, uterine and colorectal cancer).

3.7.20 Lake Merced (94132)

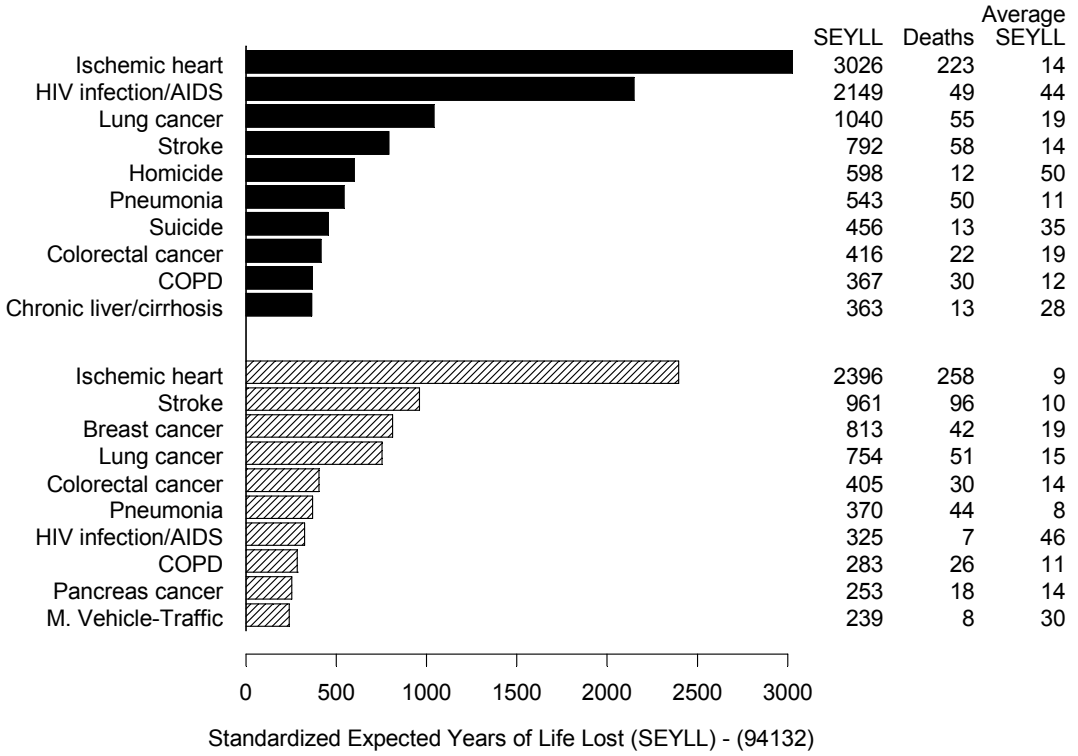


Figure 47: Leading causes of death for Lake Merced (94132) males (top) and females (bottom), 1990-1995. For all causes, there were 819 male deaths (SEYLL = 15 138 years) and 880 female deaths (SEYLL = 11 291 years). The 1990 Census population estimate was 23 667 (3.3% of total population).

Among males in 94132: Ischemic heart disease was the leading cause of death, representing 20% of the 15 138 expected years of life lost from all causes. Ischemic heart disease and AIDS (14.2%) accounted for more than one-third of all expected years of life lost . The most premature causes were homicide, AIDS, and suicide, causing an average of 50, 44, and 35 expected years of life lost per death, respectively. Injuries were the fifth and seventh leading causes of death. Tobacco was associated with six leading causes (ischemic heart disease, lung cancer, stroke, pneumonia, colorectal cancer, chronic obstructive pulmonary disease), alcohol with six (stroke, homicide, pneumonia, suicide, colorectal cancer, cirrhosis), drug use with five (AIDS, stroke, homicide, suicide, cirrhosis) and diet/physical inactivity with three (ischemic heart disease, stoke, colorectal cancer).

Among females: Ischemic heart disease was the leading cause of death, representing 21.2% of the 11 291 expected years of life lost from all causes. Ischemic heart disease, stroke (8.5%), breast cancer (7.2%), and lung cancer (6.7%) accounted for 44% of all expected years of life lost . The most premature causes were AIDS and MV-traffic, causing an average of 46 and 30 expected years of life lost per death, respectively. Injuries were the tenth leading causes of death (MV-traffic). Tobacco was associated with seven leading causes (ischemic heart disease, stroke, lung cancer, colorectal cancer, pneumonia, chronic obstructive pulmonary disease, pancreas cancer), alcohol with five (stroke, breast cancer, colorectal cancer, pneumonia, MV-traffic), drug use with three (stroke, AIDS, MV-traffic), and diet/physical inactivity with four (ischemic heart disease, stroke, breast and colorectal cancer).

3.7.21 North Beach/Chinatown (94133)

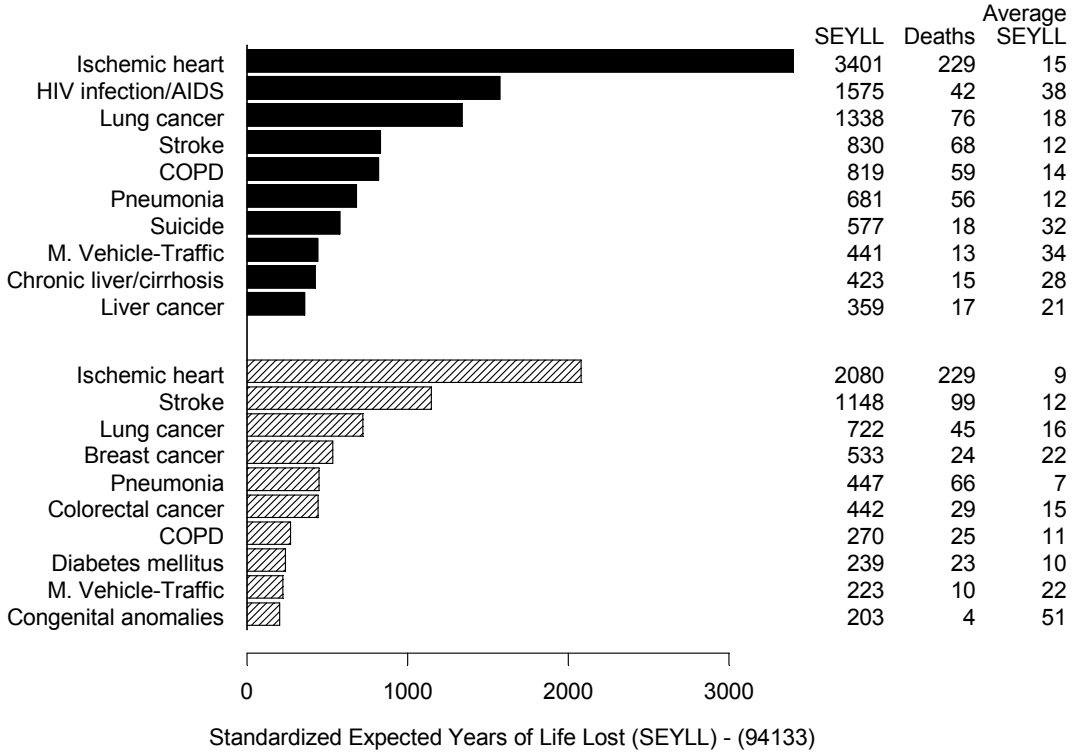


Figure 48: Leading causes of death for North Beach/Chinatown (94133) males (top) and females (bottom), 1990-1995. For all causes, there were 926 male deaths (SEYLL = 16 370 years) and 877 female deaths (SEYLL = 10 850 years). The 1990 Census population estimate was 27 331 (3.8% of total population).

Among males in 94133: Ischemic heart disease was the leading cause of death, representing 20.8% of the 16 370 expected years of life lost from all causes. Ischemic heart disease, AIDS (9.6%), and lung cancer (3.2%) accounted for one-third of all expected years of life lost . The most premature cause was AIDS, causing an average of 38 expected years of life lost per death. Injuries were the seventh and eighth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease pneumonia), alcohol with six (stroke, pneumonia, suicide, MV-traffic, cirrhosis, liver cancer), drug use with six (AIDS, stroke, suicide, MV-traffic, cirrhosis, liver cancer) and diet/ physical inactivity with three (ischemic heart disease, lung cancer, stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 19.2% of the 10 850 expected years of life lost from all causes. Ischemic heart disease, stroke (10.5%), and lung cancer (6.7%) accounted for 36% of all expected years of life lost . The most premature cause was congenital anomalies, causing an average of 51 expected years of life lost per death. Injuries were the ninth leading cause of death (MV-traffic). Tobacco was associated with six leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, colorectal cancer, chronic obstructive pulmonary disease), alcohol with five (stroke, breast cancer, pneumonia, colorectal cancer, MV-traffic), drug use with two (stroke and MV-traffic), and diet/physical inactivity with six (ischemic heart disease, stroke, lung, breast, and colorectal cancer, diabetes mellitus).

3.7.22 Visitación Valley/Sunnydale (94134)

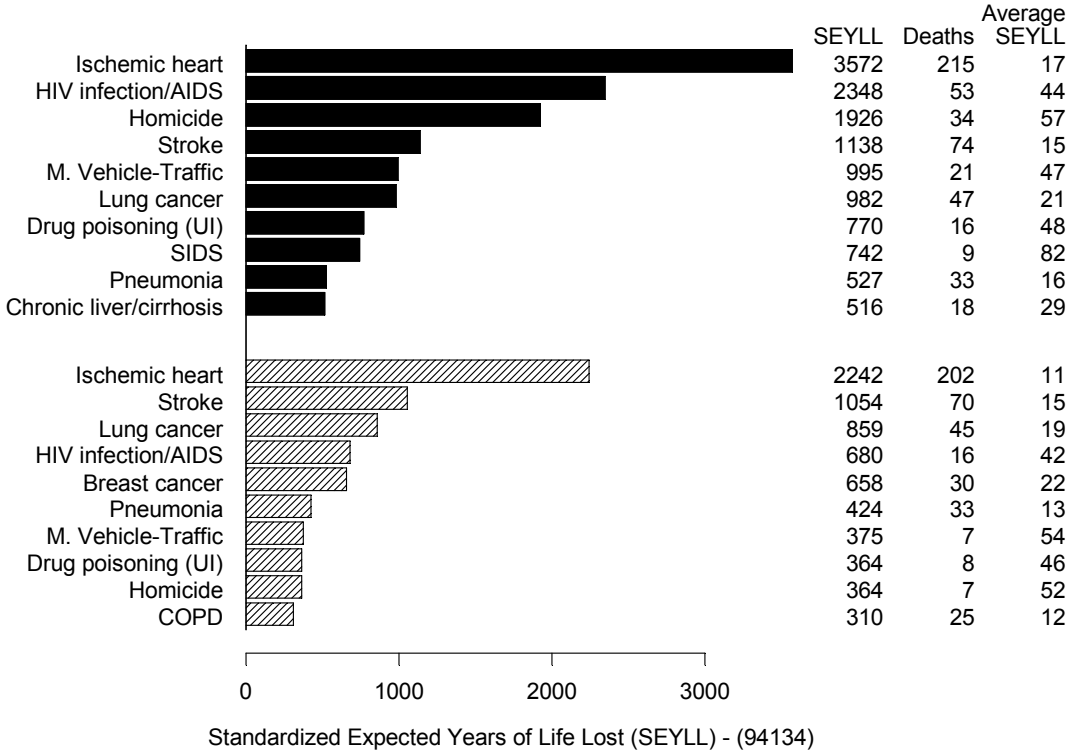


Figure 49: Leading causes of death for Visitacion Valley/Sunnydale (94134) males (top) and females (bottom), 1990-1995. For all causes, there were 926 male deaths (SEYLL = 22 464 years) and 781 female deaths (SEYLL = 14 360 years). The 1990 Census population estimate was 34 603 (4.8% of total population).

Among males in 94134: Ischemic heart disease was the leading cause of death, representing 15.9% of the 22 464 expected years of life lost from all causes. Ischemic heart disease, AIDS (10.5%), and homicide (8.6%) accounted for 35% of all expected years of life lost . The most premature causes were sudden infant death syndrome (SIDS), homicide, drug poisoning, and MV-traffic, causing an average of 82, 57, 48, and 47 expected years of life lost per death, respectively. Injuries were the third, fifth, and seventh leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, SIDS, pneumonia), alcohol with six (homicide, stroke, MV-traffic, drug poisoning, pneumonia, cirrhosis), drug use with six (AIDS, homicide, stroke, MV-traffic, drug poisoning, cirrhosis) and diet/ physical inactivity with two (ischemic heart disease and stroke).

Among females: Ischemic heart disease was the leading cause of death, representing 15.6% of the 14 360 expected years of life lost from all causes. Ischemic heart disease, stroke (7.3%), and lung cancer (6%) accounted for 29% of all expected years of life lost . The most premature causes were MV-traffic, homicide, drug poisoning, and AIDS, causing an average of 54, 52, 46, and 42 expected years of life lost per death, respectively. Injuries were the seventh, eighth, and ninth leading causes of death. Tobacco was associated with five leading causes (ischemic heart disease, stroke, lung cancer, pneumonia, chronic obstructive pulmonary disease), alcohol with six (stroke, breast cancer, pneumonia, MV-traffic, drug poisoning, homicide), drug use with five (stroke, AIDS, MV-traffic, drug poisoning, homicide), and diet/physical inactivity with three (ischemic heart disease, stroke, breast cancer).

APPENDIXES

A1-Table 49. Number of deaths by Cause, All Residents, S.F., 1990-1995
A2-Table 50. Number of deaths by Cause, Males, S.F., 1990-1995
A3-Table 51. Number of deaths by Cause, Females, S.F., 1990-1995
B1-Table 52. Standard Expected Years of Life Lost by Cause, All Residents, S.F., 1990-1995
B2-Table 53. Standard Expected Years of Life Lost by Cause, Males, S.F., 1990-1995
B3-Table 54. Standard Expected Years of Life Lost by Cause, Females, S.F., 1990-1995
C-Table 55. Age-adjusted mortality rates by Cause, Sex and Ethnicity, S.F., 1990-1995
D. Glossary

A1-Table 49: Number of Deaths, All Residents , San Francisco, 1990-1995

Disease category	All ages*	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
0. All causes	48,424	362	72	76	517	8,110	8,845	30,339
I. Communicable	9,873	21	9	6	46	4,956	2,413	2,398
A. Infectious & parasitic	7,563	12	6	6	41	4,860	2,234	380
1. Tuberculosis	63	0	0	0	1	8	15	39
2. Sexually tranmitted (& PID)	7	0	0	0	0	0	2	5
3. HIV infection/AIDS	6,832	3	3	4	30	4,640	2,031	97
4. Diarrheal diseases	18	5	1	0	0	3	3	6
5. Child-cluster diseases	3	0	0	0	0	0	1	2
6. Bacterial meningitis	28	1	0	0	2	8	11	6
7. Hepatitis B & C	165	0	0	0	1	68	60	36
8. Tropical diseases	5	0	0	0	1	2	2	0
B. Respiratory infections	2,310	9	3	0	5	96	179	2,018
1. Lower resp. (Pneumonia)	2,303	8	2	0	4	94	178	2,017
2. Upper respiratory	5	0	1	0	1	2	0	1
II. Maternal-Perinatal-Nutritional	282	224	2	0	1	11	3	40
A. Maternal conditions	10	0	0	0	1	9	0	0
B. Perinatal conditions	141	139	2	0	0	0	0	0
1. Slow growth/gestation/LBW	14	14	0	0	0	0	0	0
2. Birth asphyxia & trauma	44	43	1	0	0	0	0	0
C. Sudden infant death syndrome	86	85	0	0	0	0	0	0
D. Nutritition deficiencies	45	0	0	0	0	2	3	40
III. Non-communicable	34,704	98	37	37	74	1,584	5,656	27,176
A. Malignant neoplasms	9,572	0	7	12	28	487	2,212	6,818
1. Mouth/oropharynx cancers	204	0	0	0	0	18	68	118
2. Esophageal cancer	214	0	0	0	0	12	60	142
3. Stomach cancer	375	0	0	0	0	13	70	292
4. Colorectal cancer	1,058	0	0	0	0	45	167	846
5. Liver cancer	410	0	0	0	0	21	132	257
6. Pancreas cancer	470	0	0	0	0	4	78	388
7. Lung cancer	2,455	0	0	0	0	51	663	1,739
8. Melanoma/skin cancers	156	0	0	0	0	22	45	89
9. Breast cancer	727	0	0	0	0	63	221	443
10. Cervical cancer	100	0	0	0	1	16	35	47
11. Uterine cancer	128	0	0	0	0	7	19	102
12. Ovarian cancer	256	0	0	0	2	9	71	174
13. Prostate cancer	582	0	0	0	0	1	39	542
14. Bladder cancer	180	0	0	0	0	2	19	159
15. Brain cancer	161	0	3	4	3	27	44	80
16. Lymphomas/multiple myeloma	595	0	1	2	8	70	124	390
17. Leukemia	323	0	2	5	7	33	67	209
B. Other neoplasms	166	2	1	0	3	20	31	109
C. Diabetes mellitus	633	0	0	0	2	35	114	482
D. Endo/Metab/Imm/Hgb disorders	458	10	2	3	3	78	86	276
E. Psychiatric conditions	806	0	1	0	2	139	217	444
1. Schizophrenia/Bipolar	7	0	0	0	0	1	0	6
2. Alcohol use (psych dx)	384	0	0	0	2	116	196	67
3. Drug use (psych dx)	38	0	0	0	0	20	18	0

*Includes subjects whose ages were missing.

A2-Table 50: Number of Deaths, Males, San Francisco, 1990-1995

Disease category	All ages*	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
0. All causes	28,613	209	42	49	416	7,172	6,612	14,029
I. Communicable	8,284	11	6	3	39	4,803	2,288	1,111
A. Infectious & parasitic	7,170	6	3	3	36	4,722	2,152	225
1. Tuberculosis	42	0	0	0	0	8	10	24
2. Sexually tranmitted (& PID)	3	0	0	0	0	0	1	2
3. HIV infection/AIDS	6,650	1	1	3	29	4,520	1,989	84
4. Diarrheal diseases	14	3	1	0	0	3	3	4
5. Child-cluster diseases	1	0	0	0	0	0	0	1
6. Bacterial meningitis	19	0	0	0	1	8	7	3
7. Hepatitis B & C	135	0	0	0	0	61	54	20
8. Tropical diseases	3	0	0	0	1	2	0	0
B. Respiratory infections	1,114	5	3	0	3	81	136	886
1. Lower resp. (Pneumonia)	1,109	4	2	0	2	79	136	886
2. Upper respiratory	4	0	1	0	1	2	0	0
II. Maternal-Perinatal-Nutritional	150	134	0	0	0	2	3	11
A. Maternal conditions	0	0	0	0	0	0	0	0
B. Perinatal conditions	79	79	0	0	0	0	0	0
1. Slow growth/gestation/LBW	9	9	0	0	0	0	0	0
2. Birth asphyxia & trauma	20	20	0	0	0	0	0	0
C. Sudden infant death syndrome	55	55	0	0	0	0	0	0
D. Nutritition deficiencies	16	0	0	0	0	2	3	11
III. Non-communicable	17,532	55	19	21	47	1,104	3,751	12,505
A. Malignant neoplasms	5,006	0	5	8	18	282	1,245	3,444
1. Mouth/oropharynx cancers	152	0	0	0	0	15	58	79
2. Esophageal cancer	153	0	0	0	0	9	46	98
3. Stomach cancer	221	0	0	0	0	5	45	171
4. Colorectal cancer	520	0	0	0	0	28	96	396
5. Liver cancer	282	0	0	0	0	20	108	154
6. Pancreas cancer	215	0	0	0	0	2	45	168
7. Lung cancer	1,439	0	0	0	0	37	442	959
8. Melanoma/skin cancers	103	0	0	0	0	20	31	52
9. Breast cancer	5	0	0	0	0	0	1	4
10. Cervical cancer	0	0	0	0	0	0	0	0
11. Uterine cancer	0	0	0	0	0	0	0	0
12. Ovarian cancer	0	0	0	0	0	0	0	0
13. Prostate cancer	582	0	0	0	0	1	39	542
14. Bladder cancer	112	0	0	0	0	2	14	96
15. Brain cancer	99	0	1	4	2	18	33	41
16. Lymphomas/multiple myeloma	318	0	1	2	5	58	74	178
17. Leukemia	172	0	2	2	6	22	37	103
B. Other neoplasms	94	1	0	0	3	17	21	52
C. Diabetes mellitus	311	0	0	0	1	24	63	223
D. Endo/Metab/Imm/Hgb disorders	250	2	1	1	2	65	68	111
E. Psychiatric conditions	479	0	0	0	1	115	182	178
1. Schizophrenia/Bipolar	2	0	0	0	0	1	0	1
2. Alcohol use (psych dx)	321	0	0	0	1	100	166	51
3. Drug use (psych dx)	26	0	0	0	0	12	14	0

*Includes subjects whose ages were missing.

A3-Table 51: Number of Deaths, Females, San Francisco, 1990-1995

Disease category	All ages*	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
0. All causes	19,811	153	30	27	101	938	2,233	16,310
I. Communicable	1,589	10	3	3	7	153	125	1,287
A. Infectious & parasitic	393	6	3	3	5	138	82	155
1. Tuberculosis	21	0	0	0	1	0	5	15
2. Sexually tranmitted (& PID)	4	0	0	0	0	0	1	3
3. HIV infection/AIDS	182	2	2	1	1	120	42	13
4. Diarrheal diseases	4	2	0	0	0	0	0	2
5. Child-cluster diseases	2	0	0	0	0	0	1	1
6. Bacterial meningitis	9	1	0	0	1	0	4	3
7. Hepatitis B & C	30	0	0	0	1	7	6	16
8. Tropical diseases	2	0	0	0	0	0	2	0
B. Respiratory infections	1,196	4	0	0	2	15	43	1,132
1. Lower resp. (Pneumonia)	1,194	4	0	0	2	15	42	1,131
2. Upper respiratory	1	0	0	0	0	0	0	1
II. Maternal-Perinatal-Nutritional	132	90	2	0	1	9	0	29
A. Maternal conditions	10	0	0	0	1	9	0	0
B. Perinatal conditions	62	60	2	0	0	0	0	0
1. Slow growth/gestation/LBW	5	5	0	0	0	0	0	0
2. Birth asphyxia & trauma	24	23	1	0	0	0	0	0
C. Sudden infant death syndrome	31	30	0	0	0	0	0	0
D. Nutritition deficiencies	29	0	0	0	0	0	0	29
III. Non-communicable	17,172	43	18	16	27	480	1,905	14,671
A. Malignant neoplasms	4,566	0	2	4	10	205	967	3,374
1. Mouth/oropharynx cancers	52	0	0	0	0	3	10	39
2. Esophageal cancer	61	0	0	0	0	3	14	44
3. Stomach cancer	154	0	0	0	0	8	25	121
4. Colorectal cancer	538	0	0	0	0	17	71	450
5. Liver cancer	128	0	0	0	0	1	24	103
6. Pancreas cancer	255	0	0	0	0	2	33	220
7. Lung cancer	1,016	0	0	0	0	14	221	780
8. Melanoma/skin cancers	53	0	0	0	0	2	14	37
9. Breast cancer	722	0	0	0	0	63	220	439
10. Cervical cancer	100	0	0	0	1	16	35	47
11. Uterine cancer	128	0	0	0	0	7	19	102
12. Ovarian cancer	256	0	0	0	2	9	71	174
13. Prostate cancer	0	0	0	0	0	0	0	0
14. Bladder cancer	68	0	0	0	0	0	5	63
15. Brain cancer	62	0	2	0	1	9	11	39
16. Lymphomas/multiple myeloma	277	0	0	0	3	12	50	212
17. Leukemia	151	0	0	3	1	11	30	106
B. Other neoplasms	72	1	1	0	0	3	10	57
C. Diabetes mellitus	322	0	0	0	1	11	51	259
D. Endo/Metab/Imm/Hgb disorders	208	8	1	2	1	13	18	165
E. Psychiatric conditions	327	0	1	0	1	24	35	266
1. Schizophrenia/Bipolar	5	0	0	0	0	0	0	5
2. Alcohol use (psych dx)	63	0	0	0	1	16	30	16
3. Drug use (psych dx)	12	0	0	0	0	8	4	0

*Includes subjects whose ages were missing.

B1-Table 52: Standard Expected Years of Life Lost, All Residents, San Francisco, 1990-1995

Disease category	All ages	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
0. All causes	1,068,209	29,865	5,892	5,726	33,329	394,595	279,156	319,646
I. Communicable	351,230	1,732	737	453	2,921	239,837	83,905	21,644
A. Infectious & parasitic	323,237	990	491	453	2,596	235,191	78,324	5,192
1. Tuberculosis	1,388	0	0	0	68	387	423	510
2. Sexually tranmitted (& PID)	99	0	0	0	0	0	54	45
3. HIV infection/AIDS	300,755	248	246	297	1,892	224,627	71,666	1,779
4. Diarrheal diseases	781	412	82	0	0	135	98	53
5. Child-cluster diseases	53	0	0	0	0	0	25	28
6. Bacterial meningitis	1,032	82	0	0	126	397	351	76
7. Hepatitis B & C	5,867	0	0	0	63	3,208	2,029	567
8. Tropical diseases	214	0	0	0	63	97	54	0
B. Respiratory infections	27,992	742	246	0	325	4,646	5,581	16,451
1. Lower resp. (Pneumonia)	27,634	660	164	0	257	4,549	5,557	16,447
2. Upper respiratory	251	0	82	0	68	97	0	4
II. Maternal-Perinatal-Nutritional	19,608	18,480	164	0	63	527	74	299
A. Maternal conditions	499	0	0	0	63	436	0	0
B. Perinatal conditions	11,631	11,468	164	0	0	0	0	0
1. Slow growth/gestation/LBW	1,155	1,155	0	0	0	0	0	0
2. Birth asphyxia & trauma	3,629	3,548	82	0	0	0	0	0
C. Sudden infant death syndrome	7,012	7,012	0	0	0	0	0	0
D. Nutritition deficiencies	465	0	0	0	0	92	74	299
III. Non-communicable	552,883	8,085	3,028	2,805	4,801	75,525	169,362	289,276
A. Malignant neoplasms	177,887	0	573	916	1,840	23,082	65,643	85,833
1. Mouth/oropharynx cancers	4,419	0	0	0	0	842	1,982	1,595
2. Esophageal cancer	4,189	0	0	0	0	532	1,728	1,929
3. Stomach cancer	6,339	0	0	0	0	634	2,110	3,594
4. Colorectal cancer	16,967	0	0	0	0	2,105	4,871	9,991
5. Liver cancer	8,468	0	0	0	0	968	3,938	3,563
6. Pancreas cancer	7,205	0	0	0	0	184	2,262	4,759
7. Lung cancer	45,351	0	0	0	0	2,317	19,440	23,594
8. Melanoma/skin cancers	3,555	0	0	0	0	1,055	1,379	1,120
9. Breast cancer	15,326	0	0	0	0	2,966	6,889	5,471
10. Cervical cancer	2,544	0	0	0	63	774	1,118	589
11. Uterine cancer	2,148	0	0	0	0	305	564	1,280
12. Ovarian cancer	4,706	0	0	0	131	421	2,065	2,088
13. Prostate cancer	7,253	0	0	0	0	44	1,073	6,136
14. Bladder cancer	2,412	0	0	0	0	97	568	1,747
15. Brain cancer	4,557	0	246	297	194	1,321	1,364	1,136
16. Lymphomas/multiple myeloma	12,644	0	82	156	519	3,398	3,652	4,837
17. Leukemia	7,219	0	164	385	466	1,612	2,059	2,533
B. Other neoplasms	3,417	165	82	0	194	978	953	1,045
C. Diabetes mellitus	10,910	0	0	0	131	1,689	3,335	5,755
D. Endo/Metab/Imm/Hgb disorders	10,799	825	164	229	194	3,887	2,757	2,743
E. Psychiatric conditions	17,861	0	82	0	126	6,703	7,115	3,836
1. Schizophrenia/Bipolar	104	0	0	0	0	48	0	55
2. Alcohol use (psych dx)	13,106	0	0	0	126	5,526	6,423	1,031
3. Drug use (psych dx)	1,606	0	0	0	0	1,012	594	0

B2-Table 53: Standard Expected Years of Life Lost, Males, San Francisco, 1990-1995

Disease category	All ages	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
0. All causes	776,759	17,242	3,437	3,661	26,819	348,754	212,069	164,776
I. Communicable	328,045	908	491	224	2,470	232,238	79,964	11,751
A. Infectious & parasitic	310,589	495	246	224	2,276	228,337	75,634	3,379
1. Tuberculosis	999	0	0	0	0	387	280	331
2. Sexually tranmitted (& PID)	41	0	0	0	0	0	29	12
3. HIV infection/AIDS	292,636	82	82	224	1,829	218,629	70,232	1,557
4. Diarrheal diseases	598	248	82	0	0	135	98	36
5. Child-cluster diseases	16	0	0	0	0	0	0	16
6. Bacterial meningitis	721	0	0	0	63	397	224	37
7. Hepatitis B & C	4,993	0	0	0	0	2,860	1,820	313
8. Tropical diseases	160	0	0	0	63	97	0	0
B. Respiratory infections	17,456	412	246	0	194	3,901	4,330	8,373
1. Lower resp. (Pneumonia)	17,127	330	164	0	126	3,804	4,330	8,373
2. Upper respiratory	247	0	82	0	68	97	0	0
II. Maternal-Perinatal-Nutritional	11,299	11,055	0	0	0	92	74	77
A. Maternal conditions	0	0	0	0	0	0	0	0
B. Perinatal conditions	6,518	6,518	0	0	0	0	0	0
1. Slow growth/gestation/LBW	742	742	0	0	0	0	0	0
2. Birth asphyxia & trauma	1,650	1,650	0	0	0	0	0	0
C. Sudden infant death syndrome	4,538	4,538	0	0	0	0	0	0
D. Nutritition deficiencies	244	0	0	0	0	92	74	77
III. Non-communicable	324,205	4,538	1,555	1,577	3,049	52,625	112,892	147,969
A. Malignant neoplasms	97,366	0	409	604	1,180	13,424	36,683	45,067
1. Mouth/oropharynx cancers	3,521	0	0	0	0	687	1,706	1,128
2. Esophageal cancer	3,066	0	0	0	0	401	1,339	1,326
3. Stomach cancer	3,799	0	0	0	0	247	1,338	2,215
4. Colorectal cancer	9,048	0	0	0	0	1,321	2,796	4,930
5. Liver cancer	6,389	0	0	0	0	924	3,195	2,270
6. Pancreas cancer	3,667	0	0	0	0	87	1,337	2,242
7. Lung cancer	28,046	0	0	0	0	1,679	12,937	13,430
8. Melanoma/skin cancers	2,572	0	0	0	0	958	949	665
9. Breast cancer	108	0	0	0	0	0	39	69
10. Cervical cancer	0	0	0	0	0	0	0	0
11. Uterine cancer	0	0	0	0	0	0	0	0
12. Ovarian cancer	0	0	0	0	0	0	0	0
13. Prostate cancer	7,253	0	0	0	0	44	1,073	6,136
14. Bladder cancer	1,605	0	0	0	0	97	407	1,101
15. Brain cancer	2,962	0	82	297	126	857	1,031	570
16. Lymphomas/multiple myeloma	7,866	0	82	156	320	2,836	2,153	2,318
17. Leukemia	4,335	0	164	151	398	1,099	1,167	1,356
B. Other neoplasms	2,308	82	0	0	194	828	645	559
C. Diabetes mellitus	5,833	0	0	0	68	1,176	1,918	2,671
D. Endo/Metab/Imm/Hgb disorders	7,173	165	82	73	126	3,209	2,209	1,309
E. Psychiatric conditions	13,524	0	0	0	63	5,526	5,965	1,970
1. Schizophrenia/Bipolar	65	0	0	0	0	48	0	16
2. Alcohol use (psych dx)	11,069	0	0	0	63	4,757	5,434	815
3. Drug use (psych dx)	1,063	0	0	0	0	605	458	0

B3-Table 54: Standard Expected Years of Life Lost, Females, San Francisco, 1990-1995

Disease category	All ages	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
0. All causes	291,450	12,622	2,455	2,065	6,509	45,841	67,087	154,870
I. Communicable	23,184	825	246	229	451	7,600	3,941	9,892
A. Infectious & parasitic	12,648	495	246	229	320	6,854	2,690	1,814
1. Tuberculosis	389	0	0	0	68	0	142	178
2. Sexually tranmitted (& PID)	58	0	0	0	0	0	25	33
3. HIV infection/AIDS	8,119	165	164	73	63	5,998	1,435	222
4. Diarrheal diseases	183	165	0	0	0	0	0	18
5. Child-cluster diseases	37	0	0	0	0	0	25	12
6. Bacterial meningitis	311	82	0	0	63	0	127	39
7. Hepatitis B & C	875	0	0	0	63	349	209	254
8. Tropical diseases	54	0	0	0	0	0	54	0
B. Respiratory infections	10,536	330	0	0	131	745	1,251	8,079
1. Lower resp. (Pneumonia)	10,507	330	0	0	131	745	1,226	8,074
2. Upper respiratory	4	0	0	0	0	0	0	4
II. Maternal-Perinatal-Nutritional	8,309	7,425	164	0	63	436	0	222
A. Maternal conditions	499	0	0	0	63	436	0	0
B. Perinatal conditions	5,114	4,950	164	0	0	0	0	0
1. Slow growth/gestation/LBW	412	412	0	0	0	0	0	0
2. Birth asphyxia & trauma	1,979	1,898	82	0	0	0	0	0
C. Sudden infant death syndrome	2,475	2,475	0	0	0	0	0	0
D. Nutritition deficiencies	222	0	0	0	0	0	0	222
III. Non-communicable	228,677	3,548	1,473	1,227	1,753	22,900	56,470	141,307
A. Malignant neoplasms	80,521	0	164	312	660	9,658	28,960	40,766
1. Mouth/oropharynx cancers	898	0	0	0	0	155	276	467
2. Esophageal cancer	1,122	0	0	0	0	131	389	603
3. Stomach cancer	2,539	0	0	0	0	387	773	1,379
4. Colorectal cancer	7,919	0	0	0	0	784	2,074	5,060
5. Liver cancer	2,079	0	0	0	0	44	743	1,293
6. Pancreas cancer	3,538	0	0	0	0	97	925	2,516
7. Lung cancer	17,305	0	0	0	0	639	6,502	10,164
8. Melanoma/skin cancers	983	0	0	0	0	97	431	455
9. Breast cancer	15,218	0	0	0	0	2,966	6,850	5,402
10. Cervical cancer	2,544	0	0	0	63	774	1,118	589
11. Uterine cancer	2,148	0	0	0	0	305	564	1,280
12. Ovarian cancer	4,706	0	0	0	131	421	2,065	2,088
13. Prostate cancer	0	0	0	0	0	0	0	0
14. Bladder cancer	807	0	0	0	0	0	161	646
15. Brain cancer	1,595	0	164	0	68	465	333	565
16. Lymphomas/multiple myeloma	4,778	0	0	0	199	561	1,499	2,519
17. Leukemia	2,884	0	0	234	68	513	892	1,177
B. Other neoplasms	1,109	82	82	0	0	150	308	486
C. Diabetes mellitus	5,077	0	0	0	63	513	1,417	3,084
D. Endo/Metab/Imm/Hgb disorders	3,626	660	82	156	68	678	548	1,434
E. Psychiatric conditions	4,337	0	82	0	63	1,176	1,150	1,866
1. Schizophrenia/Bipolar	39	0	0	0	0	0	0	39
2. Alcohol use (psych dx)	2,038	0	0	0	63	770	989	216
3. Drug use (psych dx)	543	0	0	0	0	407	136	0

C-Table 55. Age-adjusted mortality rates and 95% C.I.s, by Sex and Ethnicity, San Francisco, 1990-1995

Disease category	Males				Females			
	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
POINT ESTIMATE								
0. All causes	1058.00000	1360.0000	619.9000	464.60000	373.10000	629.30000	210.50000	237.80000
I. Communicable	392.30000	310.5000	195.3000	61.46000	22.91000	63.26000	16.19000	16.60000
A. Infectious & parasitic	362.50000	269.4000	178.1000	42.12000	9.57500	45.66000	9.41000	6.26800
1. Tuberculosis	0.93060	1.3330	1.0430	2.13800	0.06343	0.45700	0.00000	1.34600
2. Sexually tranmitted (& PID)	0.13210	0.1951	0.0000	0.00000	0.12760	0.08224	0.00000	0.07721
3. HIV infection/AIDS	341.30000	245.6000	167.1000	31.96000	5.17400	33.21000	6.05800	1.34600
4. Diarrheal diseases	0.50450	0.3584	0.3745	0.43300	0.22390	0.37760	0.00000	0.00000
5. Child-cluster diseases	0.06399	0.0000	0.0000	0.00000	0.12760	0.00000	0.00000	0.00000
6. Bacterial meningitis	0.80340	3.2600	0.0000	0.13270	0.40810	0.77450	0.00000	0.22390
7. Hepatitis B & C	6.44600	2.5070	2.2780	2.91600	0.80860	2.17600	1.16400	0.82750
8. Tropical diseases	0.05600	0.0000	0.5440	0.00000	0.00000	0.00000	0.31950	0.10770
B. Respiratory infections	29.82000	41.1200	17.2200	19.35000	13.33000	17.60000	6.78000	10.34000
1. Lower resp. (Pneumonia)	29.35000	40.0200	17.2200	19.35000	13.33000	17.20000	6.78000	10.34000
2. Upper respiratory	0.46550	0.7419	0.0000	0.00000	0.00739	0.00000	0.00000	0.00000
II. Maternal-Perinatal-Nutritional	4.74700	18.8300	6.1020	5.14600	4.15000	13.78000	3.56400	4.90200
A. Maternal conditions	0.00000	0.0000	0.0000	0.00000	0.21950	0.76650	0.36310	0.50250
B. Perinatal conditions	2.95000	9.6770	4.1850	2.47100	2.36100	8.39700	1.59300	3.25500
1. Slow growth/gestation/LBW	0.17350	0.7168	0.4406	0.61770	0.36320	0.37760	0.22750	0.16270
2. Birth asphyxia & trauma	0.86770	1.7920	1.3220	0.61770	0.90800	3.44300	0.45510	1.30200
C. Sudden infant death syndrome	1.38800	7.8850	1.7620	2.62500	1.27100	4.15400	1.36500	0.97640
D. Nutritition deficiencies	0.40840	1.2680	0.1542	0.05054	0.29830	0.45990	0.24270	0.16850
III. Non-communicable	549.90000	812.4000	326.1000	353.00000	310.90000	487.20000	171.20000	199.40000
A. Malignant neoplasms	164.00000	239.9000	91.8700	118.20000	120.00000	157.60000	58.06000	72.14000
1. Mouth/oropharynx cancers	4.84700	7.7640	3.0550	5.98500	1.17700	1.41300	0.26440	1.32000
2. Esophageal cancer	5.06200	9.2920	1.7450	3.97100	1.67800	4.36100	0.75200	0.43070
3. Stomach cancer	4.24100	13.1700	4.4470	8.02500	2.15100	3.31300	4.19600	3.89900
4. Colorectal cancer	16.36000	20.1100	9.2830	11.14000	10.54000	15.85000	5.27200	8.86600
5. Liver cancer	5.84800	10.3800	6.9140	16.27000	1.46800	3.54900	1.35200	4.93300
6. Pancreas cancer	7.54500	9.1630	4.1740	3.65400	5.31800	10.16000	1.98600	2.57500
7. Lung cancer	50.09000	82.2000	15.8400	34.83000	30.53000	36.01000	6.91600	13.08000
8. Melanoma/skin cancers	5.38300	0.7866	1.9020	0.54760	2.22600	0.60610	0.69430	0.21010
9. Breast cancer	0.18170	0.3253	0.0000	0.09642	22.41000	32.04000	10.36000	12.24000
10. Cervical cancer	0.00000	0.0000	0.0000	0.00000	2.84400	3.85600	3.71000	2.78700
11. Uterine cancer	0.00000	0.0000	0.0000	0.00000	2.78100	4.76100	1.60200	1.87000
12. Ovarian cancer	0.00000	0.0000	0.0000	0.00000	8.96700	4.80200	4.30700	3.08700
13. Prostate cancer	15.82000	36.1800	9.8120	4.94900	0.00000	0.00000	0.00000	0.00000
14. Bladder cancer	3.29100	2.7580	2.2380	2.13100	1.17800	2.40200	0.29800	0.53870
15. Brain cancer	5.02100	3.6240	3.2400	1.74500	2.41000	2.59800	0.71810	0.55510
16. Lymphomas/multiple myeloma	12.48000	8.7700	9.6510	5.88800	7.46500	8.82800	4.46200	3.66600
17. Leukemia	4.89700	8.1940	5.4430	5.16600	3.11900	3.38700	3.49800	3.64900
B. Other neoplasms	3.32600	2.8990	2.0780	2.14600	1.17800	2.00100	0.77140	1.40600
C. Diabetes mellitus	7.07500	23.0500	8.3570	7.43000	4.50600	19.34000	6.80100	5.53100
D. Endo/Metab/Imm/Hgb disorders	9.68300	14.7800	2.9190	4.85900	4.04000	5.96800	3.20100	2.74500
E. Psychiatric conditions	18.99000	28.3000	16.1200	3.81100	6.78800	6.62100	2.22400	1.91600
1. Schizophrenia/Bipolar	0.06399	0.0000	0.0000	0.13520	0.07821	0.00000	0.00000	0.00000
2. Alcohol use (psych dx)	15.08000	19.5600	14.0000	1.67300	3.89500	2.82100	1.31900	0.23220
3. Drug use (psych dx)	1.23200	2.5580	0.8510	0.00000	0.64120	1.13200	0.00000	0.15790
F. Neurologic conditions	10.47000	12.5900	4.0470	5.79500	7.82900	10.02000	4.62200	3.30700
1. Dementia/degenerative CNS	3.79300	6.4380	2.3890	2.04600	3.57000	2.86000	1.54000	1.38400
a. Alzheimer's disease	1.86200	2.3080	1.1170	0.95620	1.95700	1.23000	0.83330	0.39270
2. Parkinson's disease	3.43700	0.7960	0.3085	2.32000	1.12700	0.00000	0.31970	0.84990
3. Multiple sclerosis	0.32740	0.7866	0.0000	0.00000	0.83380	2.12500	0.63900	0.00000

Rate per 100,000 per year and standardized to U.S. 1940 Standard Million Population. Estimates displayed to 4 significant digits to avoid rounding to zero.

C-Table 55. Age-adjusted mortality rates and 95% C.I.s, by Sex and Ethnicity, San Francisco, 1990-1995

Disease category	Males				Females			
	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
POINT ESTIMATE (continued)								
III. Non-communicable (continued)								
G. Cardiovascular diseases	247.20000	367.4000	139.5000	154.80000	117.60000	214.80000	67.42000	84.73000
1. Rheumatic heart disease	1.67900	1.3350	0.6833	0.68030	1.32700	1.19300	0.71220	1.74400
2. Ischemic heart disease	174.20000	232.6000	93.2600	97.40000	73.23000	121.50000	39.53000	43.36000
3. Cerebrovascular (Stroke)	30.27000	55.7000	26.6900	33.91000	23.88000	48.59000	12.94000	26.13000
4. Inflam/infect/cardiomyop	11.21000	32.8500	4.1840	6.89400	3.83800	13.16000	2.11300	2.24900
5. Hypertension	1.41100	4.5450	1.0330	1.84200	1.32400	3.36000	1.33100	1.04300
H. Respiratory diseases	32.12000	41.8600	14.2000	26.50000	19.87000	24.01000	6.06400	9.50300
1. Chronic obstr. pulm. disease	22.74000	25.1600	5.8280	18.02000	14.62000	12.28000	2.53100	4.72200
2. Asthma	1.52200	4.0820	1.6840	3.58000	1.52200	3.61100	1.39800	2.25900
I. Digestive diseases	43.31000	49.5700	35.1500	17.11000	17.66000	25.03000	12.55000	6.46000
1. Peptic ulcer diseases	2.61000	3.5300	0.5511	2.40700	1.08400	2.24800	0.05525	0.49610
2. Chronic liver & cirrhosis	25.33000	27.1200	26.0500	5.81900	9.07300	11.83000	7.00900	2.52800
3. Appendicitis	0.19020	0.0000	0.0000	0.18410	0.12760	0.00000	0.00000	0.12450
J. Genito-urinary diseases	7.92100	23.2700	5.0700	6.43300	4.60300	13.62000	4.83400	6.24800
1. Nephritis & nephrosis	3.63800	14.0300	2.6820	3.74000	1.52600	8.11500	2.67300	3.33900
2. Benign prostatic hypertrophy	0.33040	0.0000	0.1542	0.12480	0.00000	0.00000	0.00000	0.00000
K. Skin diseases	1.00400	1.2850	0.2978	0.40850	0.48930	1.18700	0.72510	0.53870
L. Musculoskel./connective tissue	0.92410	2.9940	1.7240	1.05500	1.69400	4.10600	1.66100	1.75500
1. Rheumatoid arthritis	0.14130	0.4612	0.0000	0.00000	0.28070	0.62530	0.00000	0.21920
2. Osteoarthritis	0.06399	0.0000	0.0000	0.00000	0.02114	0.29830	0.13220	0.02854
M. Congenital anomalies	3.85500	4.4160	4.8470	4.39800	4.63800	2.89100	2.29900	3.12600
1. Anencephaly	0.00000	0.0000	0.0000	0.15440	0.18160	0.00000	0.22750	0.00000
2. Down syndrome	0.33370	0.0000	0.0000	0.00000	0.00000	0.00000	0.00000	0.00000
3. Congenital heart disease	1.98700	2.2710	2.0160	1.99200	3.50300	1.60900	1.16100	2.18300
IV. Injuries	108.20000	211.3000	90.8300	43.76000	33.87000	60.50000	18.72000	16.26000
A. Unintentional injuries	57.65000	95.0900	48.7800	22.53000	19.30000	34.22000	12.92000	8.84400
1. Motor Vehicle-Traffic	12.70000	20.2600	11.5500	10.23000	6.42000	6.27900	3.48800	5.50500
a. Occupant, MVT	2.53500	4.2070	2.9660	3.17300	2.68300	1.92400	1.06800	2.09300
b. Motorcyclist, MVT	0.45390	1.1380	0.2476	0.27620	0.58660	0.00000	0.00000	0.00000
c. Pedalcyclist, MVT	0.34420	0.9207	0.0000	0.40590	0.00000	0.00000	0.00000	0.00000
d. Pedestrian, MVT	2.74700	5.4730	3.7560	3.70700	2.11100	2.81200	1.22300	2.12600
2. Poisonings, UI	27.13000	50.0900	18.9400	3.57400	7.58400	19.90000	2.78500	0.43840
a. Drug poisoning, UI	26.20000	48.3000	17.9800	3.25200	7.50400	18.62000	2.78500	0.43840
3. Falls, UI	7.60900	5.7910	10.6200	2.25300	2.53500	1.86400	3.08400	1.33900
4. Fires, UI	1.16600	1.5480	1.9630	0.50560	0.25880	2.14400	1.42900	0.05571
5. Drownings, UI	1.87900	4.0940	1.7400	2.62800	0.63810	0.82110	0.89710	0.18020
6. Firearm, UI	0.29330	1.5330	0.2964	0.56170	0.00000	0.00000	0.00000	0.12910
B. Intentional injuries	46.44000	111.4000	39.6400	20.03000	12.60000	23.69000	4.48300	7.05800
1. Suicide	37.50000	20.6900	14.9800	9.55300	10.20000	5.96700	1.36500	5.24000
a. Firearm, suicide	11.47000	7.2090	2.3240	2.34700	2.30300	2.01900	0.23380	0.69680
2. Homicide	8.83100	88.6300	24.6600	10.34000	2.40100	17.72000	3.11800	1.81800
a. Firearm, homicide	4.92900	65.4700	17.7100	6.91600	0.95960	11.15000	1.02100	0.60690
b. Child battering	0.00000	0.0000	0.0000	0.00000	0.00000	0.00000	0.00000	0.00000
3. Legal intervention	0.00000	2.1030	0.0000	0.13520	0.00000	0.00000	0.00000	0.00000
4. War	0.11780	0.0000	0.0000	0.00000	0.00000	0.00000	0.00000	0.00000
C. Intention undetermined injury	4.12800	4.7980	2.4130	1.19300	1.97800	2.59200	1.31500	0.35470
1. Firearm, IU	0.21450	0.3455	0.0000	0.32240	0.00000	0.00000	0.00000	0.00000
V. Non-Categorized	3.12200	6.9190	1.5640	1.24000	1.30600	4.55200	0.83430	0.65320

Rate per 100,000 per year and standardized to U.S. 1940 Standard Million Population. Estimates displayed to 4 significant digits to avoid rounding to zero.

C-Table 55. Age-adjusted mortality rates and 95% C.I.s, by Sex and Ethnicity, San Francisco, 1990-1995

Disease category	Males				Females			
	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
LOWER 95% CONFIDENCE INTERVAL								
0. All causes	1.041e+003	1.315e+003	592.800000	450.30000	363.300000	601.50000	196.600000	228.800000
I. Communicable	3.821e+002	2.887e+002	180.600000	56.02000	20.510000	54.00000	12.480000	14.290000
A. Infectious & parasitic	3.526e+002	2.490e+002	164.000000	37.30000	7.668000	37.49000	6.337000	4.582000
1. Tuberculosis	4.041e-001	1.377e-002	0.000000	1.17800	0.000000	0.00000	0.000000	0.599100
2. Sexually tranmitted (& PID)	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
3. HIV infection/AIDS	3.317e+002	2.260e+002	153.500000	27.69000	3.747000	26.11000	3.454000	0.530700
4. Diarrheal diseases	1.386e-001	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
5. Child-cluster diseases	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
6. Bacterial meningitis	1.603e-001	9.701e-001	0.000000	0.00000	0.034960	0.00000	0.000000	0.000000
7. Hepatitis B & C	5.139e+000	4.816e-001	0.625300	1.68800	0.155300	0.40100	0.110900	0.261700
8. Tropical diseases	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
B. Respiratory infections	2.723e+001	3.356e+001	12.740000	16.83000	11.880000	13.24000	4.699000	8.747000
1. Lower resp. (Pneumonia)	2.684e+001	3.256e+001	12.740000	16.83000	11.880000	12.91000	4.699000	8.747000
2. Upper respiratory	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
II. Maternal-Perinatal-Nutritional	3.024e+000	1.370e+001	3.838000	3.40500	2.529000	9.32900	1.780000	3.194000
A. Maternal conditions	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.009996
B. Perinatal conditions	1.548e+000	6.027e+000	2.303000	1.26000	1.077000	4.88600	0.412900	1.828000
1. Slow growth/gestation/LBW	0.000e+000	0.000e+000	0.000000	0.01236	0.000000	0.00000	0.000000	0.000000
2. Birth asphyxia & trauma	1.071e-001	2.213e-001	0.264100	0.01236	0.112100	1.19200	0.000000	0.399700
C. Sudden infant death syndrome	4.263e-001	4.590e+000	0.541100	1.37700	0.329500	1.69900	0.272800	0.195100
D. Nutritition deficiencies	1.332e-001	0.000e+000	0.000000	0.00000	0.119900	0.00000	0.000000	0.000000
III. Non-communicable	5.381e+002	7.784e+002	305.800000	341.00000	302.300000	463.60000	158.800000	191.300000
A. Malignant neoplasms	1.574e+002	2.215e+002	80.940000	111.00000	114.300000	143.60000	50.210000	66.950000
1. Mouth/oropharynx cancers	3.675e+000	4.293e+000	1.036000	4.23000	0.648000	0.03253	0.000000	0.625200
2. Esophageal cancer	3.915e+000	5.500e+000	0.266900	2.65400	1.028000	1.95500	0.000000	0.083530
3. Stomach cancer	3.259e+000	8.933e+000	2.073000	6.18600	1.482000	1.36400	1.992000	2.751000
4. Colorectal cancer	1.444e+001	1.463e+001	5.766000	9.00100	8.982000	11.64000	3.031000	7.142000
5. Liver cancer	4.606e+000	6.364e+000	3.784000	13.45000	0.935100	1.54700	0.160300	3.613000
6. Pancreas cancer	6.189e+000	5.611e+000	1.794000	2.48300	4.217000	6.88900	0.819600	1.672000
7. Lung cancer	4.642e+001	7.131e+001	11.320000	31.01000	27.660000	29.28000	4.376000	10.970000
8. Melanoma/skin cancers	4.199e+000	0.000e+000	0.328100	0.03918	1.410000	0.00000	0.000000	0.000000
9. Breast cancer	0.000e+000	0.000e+000	0.000000	0.00000	19.840000	25.52000	6.943000	9.918000
10. Cervical cancer	0.000e+000	0.000e+000	0.000000	0.00000	1.807000	1.70100	1.492000	1.727000
11. Uterine cancer	0.000e+000	0.000e+000	0.000000	0.00000	2.030000	2.35900	0.319900	1.002000
12. Ovarian cancer	0.000e+000	0.000e+000	0.000000	0.00000	7.285000	2.40000	2.206000	1.975000
13. Prostate cancer	1.402e+001	2.958e+001	6.533000	3.72200	0.000000	0.00000	0.000000	0.000000
14. Bladder cancer	2.444e+000	9.373e-001	0.534800	1.23600	0.697800	0.82130	0.000000	0.176200
15. Brain cancer	3.582e+000	1.190e+000	1.046000	0.76110	1.619000	0.46000	0.000000	0.130800
16. Lymphomas/multiple myeloma	1.061e+001	5.275e+000	6.142000	4.23600	5.969000	5.53900	2.348000	2.445000
17. Leukemia	3.837e+000	4.615e+000	2.773000	3.46800	2.256000	1.21100	1.442000	2.343000
B. Other neoplasms	2.384e+000	9.308e-001	0.468600	1.09700	0.637200	0.34360	0.000000	0.658900
C. Diabetes mellitus	5.773e+000	1.731e+001	5.086000	5.77500	3.473000	14.50000	4.267000	4.289000
D. Endo/Metab/Imm/Hgb disorders	7.986e+000	1.011e+001	1.016000	3.35300	2.981000	3.17200	1.230000	1.664000
E. Psychiatric conditions	1.672e+001	2.178e+001	11.630000	2.58400	5.424000	3.85000	0.836300	1.121000
1. Schizophrenia/Bipolar	0.000e+000	0.000e+000	0.000000	0.00000	0.003568	0.00000	0.000000	0.000000
2. Alcohol use (psych dx)	1.300e+001	1.398e+001	9.752000	0.73770	2.675000	0.65220	0.016640	0.000000
3. Drug use (psych dx)	6.195e-001	4.970e-001	0.005937	0.00000	0.191700	0.00000	0.000000	0.000000
F. Neurologic conditions	8.884e+000	8.394e+000	1.776000	4.32900	6.424000	6.26500	2.537000	2.116000
1. Dementia/degenerative CNS	2.828e+000	3.750e+000	0.753500	1.27100	2.891000	1.52700	0.593300	0.744000
a. Alzheimer's disease	1.311e+000	6.584e-001	0.000000	0.40750	1.535000	0.30820	0.184300	0.124100
2. Parkinson's disease	2.680e+000	0.000e+000	0.000000	1.49900	0.685100	0.00000	0.000000	0.428900
3. Multiple sclerosis	3.201e-003	0.000e+000	0.000000	0.00000	0.328900	0.32420	0.000000	0.000000

Rate per 100,000 per year and standardized to U.S. 1940 Standard Million Population. Estimates displayed to 4 significant digits to avoid rounding to zero.

Disease category	Males				Females			
	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
LOWER 95% CONFIDENCE INTERVAL (continued)								
III. Non-communicable (continued)								
G. Cardiovascular diseases	2.396e+002	3.447e+002	126.300000	147.10000	113.200000	200.00000	60.340000	79.860000
1. Rheumatic heart disease	1.059e+000	0.000e+000	0.000000	0.10920	0.815300	0.16230	0.000000	0.880600
2. Ischemic heart disease	1.678e+002	2.146e+002	82.440000	91.24000	69.790000	110.60000	34.220000	40.050000
3. Cerebrovascular (Stroke)	2.775e+001	4.691e+001	20.910000	30.35000	21.860000	41.41000	9.878000	23.320000
4. Inflam/infect/cardiomyop	9.369e+000	2.581e+001	1.963000	5.19400	2.913000	9.22100	0.790000	1.376000
5. Hypertension	8.308e-001	2.053e+000	0.000000	1.03300	0.784300	1.49600	0.267300	0.562400
H. Respiratory diseases	2.934e+001	3.422e+001	10.030000	23.35000	17.830000	18.53000	3.951000	7.825000
1. Chronic obstr. pulm. disease	2.047e+001	1.932e+001	3.225000	15.47000	12.900000	8.50500	1.060000	3.598000
2. Asthma	8.908e-001	1.506e+000	0.167000	2.29600	0.878400	1.25300	0.362200	1.354000
I. Digestive diseases	3.987e+001	4.077e+001	28.370000	14.32000	15.440000	19.53000	8.929000	5.045000
1. Peptic ulcer diseases	1.837e+000	1.191e+000	0.000000	1.47100	0.608500	0.59110	0.000000	0.159600
2. Chronic liver & cirrhosis	2.263e+001	2.050e+001	20.150000	4.06500	7.365000	7.72000	4.150000	1.548000
3. Appendicitis	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
J. Genito-urinary diseases	6.628e+000	1.748e+001	2.691000	4.98900	3.739000	9.59800	2.738000	4.976000
1. Nephritis & nephrosis	2.725e+000	9.473e+000	0.953700	2.66000	1.009000	4.92000	1.012000	2.396000
2. Benign prostatic hypertrophy	1.376e-001	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
K. Skin diseases	3.394e-001	0.000e+000	0.000000	0.02963	0.148300	0.00000	0.000000	0.176200
L. Musculoskel./connective tissue	4.524e-001	8.457e-001	0.279200	0.35520	0.838200	1.76400	0.392100	0.782400
1. Rheumatoid arthritis	0.000e+000	0.000e+000	0.000000	0.00000	0.031920	0.00000	0.000000	0.000000
2. Osteoarthritis	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
M. Congenital anomalies	2.244e+000	1.897e+000	2.428000	2.69200	2.804000	0.73930	0.845100	1.736000
1. Anencephaly	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
2. Down syndrome	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
3. Congenital heart disease	8.179e-001	4.411e-001	0.441000	0.82490	1.872000	0.00000	0.103200	1.032000
IV. Injuries	1.012e+002	1.924e+002	80.720000	38.68000	30.010000	50.48000	14.010000	13.420000
A. Unintentional injuries	5.262e+001	8.276e+001	41.390000	18.92000	16.310000	26.91000	8.993000	6.749000
1. Motor Vehicle-Traffic	9.821e+000	1.439e+001	8.065000	7.76700	4.339000	2.99400	1.426000	3.761000
a. Occupant, MVT	1.158e+000	1.557e+000	1.292000	1.71600	1.258000	0.02328	0.013300	0.975300
b. Motorcyclist, MVT	1.157e-001	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
c. Pedalcyclist, MVT	4.024e-002	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
d. Pedestrian, MVT	1.649e+000	2.557e+000	1.799000	2.26800	1.048000	0.54290	0.113200	1.149000
2. Poisonings, UI	2.403e+001	4.128e+001	14.380000	2.14900	5.817000	14.30000	0.928300	0.000000
a. Drug poisoning, UI	2.320e+001	3.967e+001	13.560000	1.90000	5.742000	13.24000	0.928300	0.000000
3. Falls, UI	5.961e+000	2.769e+000	6.991000	1.24200	1.671000	0.46700	1.272000	0.655800
4. Fires, UI	5.445e-001	1.189e-003	0.335000	0.00000	0.013640	0.26770	0.000000	0.000000
5. Drownings, UI	9.190e-001	1.364e+000	0.426200	1.29000	0.172600	0.00000	0.000000	0.000000
6. Firearm, UI	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
B. Intentional injuries	4.176e+001	9.736e+001	32.940000	16.56000	10.350000	17.16000	2.240000	5.189000
1. Suicide	3.332e+001	1.484e+001	10.750000	7.27600	8.155000	2.66000	0.147000	3.644000
a. Firearm, suicide	9.130e+000	3.606e+000	0.659800	1.15200	1.236000	0.02016	0.000000	0.131900
2. Homicide	6.699e+000	7.597e+001	19.470000	7.74100	1.459000	12.09000	1.234000	0.846400
a. Firearm, homicide	3.203e+000	5.448e+001	13.290000	4.79500	0.297000	6.61000	0.009901	0.001900
b. Child battering	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
3. Legal intervention	0.000e+000	2.295e-001	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
4. War	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
C. Intention undetermined injury	2.832e+000	2.041e+000	0.781300	0.34850	1.020000	0.50630	0.003916	0.000000
1. Firearm, IU	0.000e+000	0.000e+000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
V. Non-Categorized	2.111e+000	3.668e+000	0.231000	0.37040	0.543400	1.68600	0.000000	0.075320

Rate per 100,000 per year and standardized to U.S. 1940 Standard Million Population. Estimates displayed to 4 significant digits to avoid rounding to zero.

C-Table 55. Age-adjusted mortality rates and 95% C.I.s, by Sex and Ethnicity, San Francisco, 1990-1995

Disease category	Males				Females			
	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
UPPER 95% CONFIDENCE INTERVAL								
0. All causes	1076.0000	1405.0000	647.1000	478.9000	382.90000	657.1000	224.5000	246.90000
I. Communicable	402.5000	332.3000	210.0000	66.9000	25.31000	72.5200	19.9000	18.92000
A. Infectious & parasitic	372.4000	289.8000	192.1000	46.9400	11.48000	53.8300	12.4800	7.95500
1. Tuberculosis	1.4570	2.6510	2.1480	3.0980	0.13520	1.0900	0.0000	2.09300
2. Sexually tranmitted (& PID)	0.3295	0.5774	0.0000	0.0000	0.34030	0.2434	0.0000	0.22850
3. HIV infection/AIDS	350.9000	265.1000	180.6000	36.2200	6.60100	40.3000	8.6610	2.16200
4. Diarrheal diseases	0.8705	1.0610	0.9016	0.9557	0.58460	1.1180	0.0000	0.00000
5. Child-cluster diseases	0.1894	0.0000	0.0000	0.0000	0.34030	0.0000	0.0000	0.00000
6. Bacterial meningitis	1.4470	5.5500	0.0000	0.3928	0.78130	1.8480	0.0000	0.61100
7. Hepatitis B & C	7.7540	4.5320	3.9300	4.1440	1.46200	3.9520	2.2170	1.39300
8. Tropical diseases	0.1658	0.0000	1.3010	0.0000	0.00000	0.0000	0.9458	0.31890
B. Respiratory infections	32.4100	48.6800	21.7000	21.8600	14.79000	21.9600	8.8610	11.93000
1. Lower resp. (Pneumonia)	31.8600	47.4800	21.7000	21.8600	14.78000	21.4900	8.8610	11.93000
2. Upper respiratory	1.1190	1.7730	0.0000	0.0000	0.02187	0.0000	0.0000	0.00000
II. Maternal-Perinatal-Nutritional	6.4700	23.9500	8.3660	6.8880	5.77100	18.2300	5.3480	6.61000
A. Maternal conditions	0.0000	0.0000	0.0000	0.0000	0.46790	1.8300	1.0750	0.99500
B. Perinatal conditions	4.3530	13.3300	6.0670	3.6810	3.64400	11.9100	2.7730	4.68100
1. Slow growth/gestation/LBW	0.5137	1.7100	1.0510	1.2230	0.86650	1.1180	0.6735	0.48170
2. Birth asphyxia & trauma	1.6280	3.3630	2.3790	1.2230	1.70400	5.6950	1.0860	2.20400
C. Sudden infant death syndrome	2.3500	11.1800	2.9830	3.8730	2.21300	6.6090	2.4580	1.75800
D. Nutritition deficiencies	0.6837	2.7150	0.4565	0.1496	0.47670	1.0180	0.5437	0.34200
III. Non-communicable	561.7000	846.4000	346.4000	365.1000	319.40000	510.9000	183.7000	207.50000
A. Malignant neoplasms	170.5000	258.4000	102.8000	125.5000	125.70000	171.6000	65.9200	77.34000
1. Mouth/oropharynx cancers	6.0190	11.2300	5.0740	7.7390	1.70600	2.7930	0.6309	2.01400
2. Esophageal cancer	6.2090	13.0800	3.2220	5.2880	2.32700	6.7680	1.6490	0.77780
3. Stomach cancer	5.2220	17.4200	6.8220	9.8640	2.82100	5.2620	6.4000	5.04700
4. Colorectal cancer	18.2900	25.5900	12.8000	13.2800	12.09000	20.0600	7.5130	10.59000
5. Liver cancer	7.0910	14.4000	10.0400	19.1000	2.00100	5.5510	2.5440	6.25300
6. Pancreas cancer	8.9010	12.7200	6.5540	4.8250	6.41900	13.4300	3.1520	3.47700
7. Lung cancer	53.7600	93.0900	20.3600	38.6500	33.40000	42.7300	9.4570	15.19000
8. Melanoma/skin cancers	6.5670	1.8930	3.4770	1.0560	3.04100	1.3040	1.5870	0.45040
9. Breast cancer	0.3944	0.9630	0.0000	0.2854	24.98000	38.5700	13.7900	14.56000
10. Cervical cancer	0.0000	0.0000	0.0000	0.0000	3.88200	6.0110	5.9280	3.84700
11. Uterine cancer	0.0000	0.0000	0.0000	0.0000	3.53100	7.1620	2.8830	2.73900
12. Ovarian cancer	0.0000	0.0000	0.0000	0.0000	10.65000	7.2030	6.4080	4.19900
13. Prostate cancer	17.6100	42.7700	13.0900	6.1760	0.00000	0.0000	0.0000	0.00000
14. Bladder cancer	4.1380	4.5790	3.9400	3.0250	1.65800	3.9830	0.6178	0.90120
15. Brain cancer	6.4600	6.0580	5.4340	2.7290	3.20100	4.7370	1.7190	0.97940
16. Lymphomas/multiple myeloma	14.3500	12.2600	13.1600	7.5390	8.96100	12.1200	6.5750	4.88600
17. Leukemia	5.9580	11.7700	8.1140	6.8630	3.98300	5.5630	5.5540	4.95500
B. Other neoplasms	4.2690	4.8680	3.6860	3.1940	1.71900	3.6590	1.5490	2.15400
C. Diabetes mellitus	8.3760	28.7900	11.6300	9.0840	5.53900	24.1800	9.3350	6.77300
D. Endo/Metab/Imm/Hgb disorders	11.3800	19.4600	4.8230	6.3650	5.09800	8.7640	5.1720	3.82600
E. Psychiatric conditions	21.2500	34.8200	20.6100	5.0380	8.15100	9.3910	3.6120	2.71000
1. Schizophrenia/Bipolar	0.1894	0.0000	0.0000	0.4000	0.15280	0.0000	0.0000	0.00000
2. Alcohol use (psych dx)	17.1600	25.1500	18.2500	2.6090	5.11500	4.9890	2.6200	0.55490
3. Drug use (psych dx)	1.8440	4.6180	1.6960	0.0000	1.09100	2.4150	0.0000	0.46740
F. Neurologic conditions	12.0600	16.8000	6.3170	7.2610	9.23500	13.7700	6.7070	4.49800
1. Dementia/degenerative CNS	4.7580	9.1250	4.0240	2.8220	4.25000	4.1920	2.4860	2.02400
a. Alzheimer's disease	2.4120	3.9580	2.2540	1.5050	2.37900	2.1530	1.4820	0.66120
2. Parkinson's disease	4.1940	1.6970	0.7360	3.1410	1.56900	0.0000	0.7018	1.27100
3. Multiple sclerosis	0.6515	1.8930	0.0000	0.0000	1.33900	3.9250	1.5250	0.00000

Rate per 100,000 per year and standardized to U.S. 1940 Standard Million Population. Estimates displayed to 4 significant digits to avoid rounding to zero.

Disease category	Males				Females			
	White	African American	Latino	Asian/ Other	White	African American	Latino	Asian/ Other
UPPER 95% CONFIDENCE INTERVAL (continued)								
III. Non-communicable (continued)								
G. Cardiovascular diseases	254.8000	390.1000	152.6000	162.5000	122.00000	229.6000	74.5000	89.59000
1. Rheumatic heart disease	2.2990	2.6870	1.6380	1.2510	1.83900	2.2230	1.5180	2.60800
2. Ischemic heart disease	180.6000	250.6000	104.1000	103.6000	76.66000	132.5000	44.8500	46.67000
3. Cerebrovascular (Stroke)	32.8000	64.4900	32.4700	37.4700	25.90000	55.7700	16.0000	28.95000
4. Inflam/infect/cardiomyop	13.0500	39.8900	6.4040	8.5940	4.76200	17.1000	3.4360	3.12300
5. Hypertension	1.9910	7.0370	2.2060	2.6500	1.86400	5.2240	2.3940	1.52400
H. Respiratory diseases	34.9100	49.5000	18.3600	29.6500	21.90000	29.4800	8.1760	11.18000
1. Chronic obstr. pulm. disease	25.0000	31.0100	8.4320	20.5600	16.35000	16.0500	4.0020	5.84700
2. Asthma	2.1530	6.6590	3.2000	4.8640	2.16500	5.9690	2.4340	3.16300
I. Digestive diseases	46.7400	58.3600	41.9200	19.8900	19.88000	30.5200	16.1700	7.87500
1. Peptic ulcer diseases	3.3820	5.8680	1.3860	3.3430	1.55900	3.9050	0.1635	0.83260
2. Chronic liver & cirrhosis	28.0400	33.7400	31.9500	7.5730	10.78000	15.9500	9.8690	3.50800
3. Appendicitis	0.4083	0.0000	0.0000	0.5449	0.34030	0.0000	0.0000	0.36840
J. Genito-urinary diseases	9.2140	29.0500	7.4490	7.8780	5.46800	17.6300	6.9310	7.52100
1. Nephritis & nephrosis	4.5510	18.5900	4.4090	4.8190	2.04400	11.3100	4.3340	4.28200
2. Benign prostatic hypertrophy	0.5232	0.0000	0.4565	0.3009	0.00000	0.0000	0.0000	0.00000
K. Skin diseases	1.6680	2.6100	0.8815	0.7874	0.83030	2.4580	1.5260	0.90120
L. Musculoskel./connective tissue	1.3960	5.1420	3.1680	1.7540	2.55000	6.4480	2.9290	2.72700
1. Rheumatoid arthritis	0.3191	1.3650	0.0000	0.0000	0.52950	1.5230	0.0000	0.48080
2. Osteoarthritis	0.1894	0.0000	0.0000	0.0000	0.06258	0.7116	0.3914	0.08447
M. Congenital anomalies	5.4660	6.9340	7.2670	6.1050	6.47200	5.0430	3.7530	4.51600
1. Anencephaly	0.0000	0.0000	0.0000	0.4571	0.53750	0.0000	0.6735	0.00000
2. Down syndrome	0.8771	0.0000	0.0000	0.0000	0.00000	0.0000	0.0000	0.00000
3. Congenital heart disease	3.1560	4.1010	3.5900	3.1590	5.13400	3.3120	2.2200	3.33500
IV. Injuries	115.2000	230.2000	100.9000	48.8300	37.73000	70.5200	23.4300	19.09000
A. Unintentional injuries	62.6900	107.4000	56.1700	26.1400	22.29000	41.5200	16.8500	10.94000
1. Motor Vehicle-Traffic	15.5700	26.1400	15.0300	12.7000	8.50000	9.5640	5.5510	7.24800
a. Occupant, MVT	3.9110	6.8560	4.6410	4.6300	4.10700	3.8240	2.1230	3.21100
b. Motorcyclist, MVT	0.7920	2.4290	0.7328	0.6589	1.31300	0.0000	0.0000	0.00000
c. Pedalcyclist, MVT	0.6482	2.2090	0.0000	0.8653	0.00000	0.0000	0.0000	0.00000
d. Pedestrian, MVT	3.8440	8.3900	5.7130	5.1450	3.17400	5.0820	2.3330	3.10400
2. Poisonings, UI	30.2200	58.9000	23.5100	4.9990	9.35200	25.4900	4.6420	0.88510
a. Drug poisoning, UI	29.2100	56.9300	22.4000	4.6040	9.26500	24.0000	4.6420	0.88510
3. Falls, UI	9.2570	8.8130	14.2400	3.2630	3.39800	3.2620	4.8970	2.02300
4. Fires, UI	1.7880	3.0960	3.5910	1.0370	0.50390	4.0200	2.8800	0.16490
5. Drownings, UI	2.8390	6.8250	3.0540	3.9660	1.10400	1.9600	1.9280	0.44740
6. Firearm, UI	0.8240	3.2900	0.8774	1.1970	0.00000	0.0000	0.0000	0.38220
B. Intentional injuries	51.1300	125.5000	46.3300	23.5000	14.84000	30.2200	6.7260	8.92700
1. Suicide	41.6700	26.5400	19.2100	11.8300	12.24000	9.2740	2.5820	6.83600
a. Firearm, suicide	13.8100	10.8100	3.9880	3.5420	3.37000	4.0170	0.6919	1.26200
2. Homicide	10.9600	101.3000	29.8500	12.9500	3.34200	23.3500	5.0020	2.79000
a. Firearm, homicide	6.6550	76.4600	22.1300	9.0360	1.62200	15.6900	2.0320	1.21200
b. Child battering	0.0000	0.0000	0.0000	0.0000	0.00000	0.0000	0.0000	0.00000
3. Legal intervention	0.0000	3.9770	0.0000	0.4000	0.00000	0.0000	0.0000	0.00000
4. War	0.2895	0.0000	0.0000	0.0000	0.00000	0.0000	0.0000	0.00000
C. Intention undetermined injury	5.4250	7.5540	4.0460	2.0380	2.93600	4.6770	2.6260	0.73550
1. Firearm, IU	0.4628	1.0230	0.0000	0.7750	0.00000	0.0000	0.0000	0.00000
V. Non-Categorized	4.1330	10.1700	2.8960	2.1100	2.06900	7.4170	1.8000	1.23100

Rate per 100,000 per year and standardized to U.S. 1940 Standard Million Population. Estimates displayed to 4 significant digits to avoid rounding to zero.

B3-Table 54: Standard Expected Years of Life Lost, Females, San Francisco, 1990-1995

Disease category	All ages	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
III. Non-communicable (continued)								
F. Neurologic conditions	5,641	165	327	234	126	673	948	3,169
1. Dementia/degenerative CNS	2,411	0	164	0	0	0	50	2,198
a. Alzheimer's disease	1,210	0	0	0	0	0	0	1,210
2. Parkinson's disease	654	0	0	0	0	0	50	604
3. Multiple sclerosis	513	0	0	0	0	92	285	136
G. Cardiovascular diseases	92,406	165	82	151	189	4,781	15,059	71,979
1. Rheumatic heart disease	1,088	0	0	0	0	48	365	674
2. Ischemic heart disease	53,461	0	0	0	0	1,181	7,854	44,426
3. Cerebrovascular (Stroke)	21,343	0	0	151	126	1,442	3,920	15,704
4. Inflam/infect/cardiomyop	3,545	0	82	0	0	813	740	1,910
5. Hypertension	1,073	0	0	0	0	44	269	760
H. Respiratory diseases	12,484	0	164	0	63	915	2,623	8,720
1. Chronic obstr. pulm. disease	7,823	0	164	0	0	92	1,405	6,162
2. Asthma	1,655	0	0	0	0	474	539	642
I. Digestive diseases	12,015	165	0	0	63	2,690	3,714	5,383
1. Peptic ulcer diseases	756	0	0	0	0	0	220	536
2. Chronic liver & cirrhosis	5,854	0	0	0	0	1,960	2,500	1,394
3. Appendicitis	82	0	0	0	0	48	25	9
J. Genito-urinary diseases	4,929	0	0	0	63	460	1,007	3,400
1. Nephritis & nephrosis	2,243	0	0	0	63	232	570	1,377
2. Benign prostatic hypertrophy	0	0	0	0	0	0	0	0
K. Skin diseases	494	0	0	0	0	87	132	275
L. Musculoskel./connective tissue	1,748	0	0	156	68	595	352	577
1. Rheumatoid arthritis	218	0	0	0	0	58	50	110
2. Osteoarthritis	43	0	0	0	0	0	0	43
M. Congenital anomalies	4,287	2,310	491	219	325	523	254	165
1. Anencephaly	165	165	0	0	0	0	0	0
2. Down syndrome	0	0	0	0	0	0	0	0
3. Congenital heart disease	2,674	908	409	219	325	475	215	124
IV. Injuries	29,735	660	491	609	3,927	14,253	6,422	3,374
A. Unintentional injuries	16,909	412	409	536	1,995	7,944	3,167	2,446
1. Motor Vehicle-Traffic	5,294	82	164	458	1,218	1,831	864	678
a. Occupant, MVT	2,024	82	0	78	646	789	322	107
b. Motorcyclist, MVT	184	0	0	0	126	58	0	0
c. Pedalcyclist, MVT	0	0	0	0	0	0	0	0
d. Pedestrian, MVT	1,889	0	164	224	189	407	449	456
2. Poisonings, UI	6,562	0	0	0	456	4,540	1,399	166
a. Drug poisoning, UI	6,387	0	0	0	388	4,497	1,360	142
3. Falls, UI	1,913	0	0	0	126	566	338	883
4. Fires, UI	649	82	82	78	131	107	64	105
5. Drownings, UI	604	0	82	0	63	295	118	47
6. Firearm, UI	58	0	0	0	0	58	0	0
B. Intentional injuries	11,466	165	82	73	1,801	5,718	2,738	889
1. Suicide	6,807	0	0	0	903	3,050	2,100	754
a. Firearm, suicide	1,481	0	0	0	262	760	438	20
2. Homicide	4,658	165	82	73	898	2,668	638	134
a. Firearm, homicide	2,187	0	0	73	704	1,162	176	71
b. Child battering	0	0	0	0	0	0	0	0
3. Legal intervention	0	0	0	0	0	0	0	0
4. War	0	0	0	0	0	0	0	0
C. Intention undetermined injury	1,360	82	0	0	131	591	517	39
1. Firearm, IU	0	0	0	0	0	0	0	0
V. Non-Categorized	1,544	165	82	0	315	654	254	75

B2-Table 53: Standard Expected Years of Life Lost, Males, San Francisco, 1990-1995

Disease category	All ages	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
III. Non-communicable (continued)								
F. Neurologic conditions	5,459	82	0	146	335	750	1,159	2,986
1. Dementia/degenerative CNS	1,653	0	0	73	0	92	88	1,400
a. Alzheimer's disease	748	0	0	0	0	0	88	660
2. Parkinson's disease	1,282	0	0	0	0	0	54	1,228
3. Multiple sclerosis	158	0	0	0	0	0	118	41
G. Cardiovascular diseases	132,462	248	164	156	573	13,234	44,625	73,463
1. Rheumatic heart disease	770	0	0	0	0	44	263	463
2. Ischemic heart disease	87,724	0	0	0	63	6,280	31,722	49,658
3. Cerebrovascular (Stroke)	19,838	82	82	0	189	2,061	5,254	12,169
4. Inflam/infect/cardiomyop	8,211	165	82	156	63	2,067	2,984	2,694
5. Hypertension	991	0	0	0	0	48	335	608
H. Respiratory diseases	17,833	248	0	73	63	1,999	4,918	10,533
1. Chronic obstr. pulm. disease	11,072	0	0	0	0	189	2,959	7,924
2. Asthma	1,818	0	0	0	63	465	694	596
I. Digestive diseases	29,644	165	82	151	63	10,442	12,790	5,951
1. Peptic ulcer diseases	1,579	0	0	0	0	290	548	741
2. Chronic liver & cirrhosis	18,018	0	0	0	0	6,992	9,136	1,889
3. Appendicitis	160	0	0	0	0	92	68	0
J. Genito-urinary diseases	5,415	82	0	0	0	1,011	1,487	2,834
1. Nephritis & nephrosis	3,089	82	0	0	0	673	907	1,427
2. Benign prostatic hypertrophy	91	0	0	0	0	0	0	91
K. Skin diseases	586	0	0	0	63	276	68	179
L. Musculoskel./connective tissue	970	0	0	0	0	397	285	288
1. Rheumatoid arthritis	72	0	0	0	0	0	59	13
2. Osteoarthritis	16	0	0	0	0	0	0	16
M. Congenital anomalies	5,608	3,465	818	375	320	353	116	160
1. Anencephaly	82	82	0	0	0	0	0	0
2. Down syndrome	79	0	0	0	63	0	0	16
3. Congenital heart disease	2,456	1,402	246	224	194	189	116	85
IV. Injuries	109,922	660	1,309	1,859	21,038	61,737	18,477	4,840
A. Unintentional injuries	56,012	495	818	1,339	7,082	33,273	10,014	2,991
1. Motor Vehicle-Traffic	13,149	0	246	672	3,806	5,996	1,694	736
a. Occupant, MVT	3,237	0	82	73	1,228	1,525	258	70
b. Motorcyclist, MVT	683	0	0	0	0	649	34	0
c. Pedalcyclist, MVT	505	0	0	78	0	325	102	0
d. Pedestrian, MVT	3,464	0	164	302	583	1,283	667	466
2. Poisonings, UI	27,566	0	0	78	1,077	21,138	5,023	250
a. Drug poisoning, UI	26,636	0	0	0	1,009	20,538	4,848	241
3. Falls, UI	5,532	82	82	0	446	2,493	1,432	996
4. Fires, UI	1,239	82	246	73	126	373	234	105
5. Drownings, UI	2,560	0	82	219	719	1,017	438	86
6. Firearm, UI	526	0	0	0	466	53	0	6
B. Intentional injuries	50,197	165	491	521	13,510	25,889	7,903	1,718
1. Suicide	25,922	0	0	73	4,164	14,484	5,709	1,491
a. Firearm, suicide	6,772	0	0	0	1,675	2,793	1,622	682
2. Homicide	23,913	165	491	448	9,282	11,153	2,156	218
a. Firearm, homicide	16,706	0	0	292	7,928	7,594	826	66
b. Child battering	0	0	0	0	0	0	0	0
3. Legal intervention	315	0	0	0	63	252	0	0
4. War	48	0	0	0	0	0	39	9
C. Intention undetermined injury	3,714	0	0	0	446	2,575	560	132
1. Firearm, IU	282	0	0	0	68	189	25	0
V. Non-Categorized	3,287	82	82	0	262	2,062	661	137

B1-Table 52: Standard Expected Years of Life Lost, All Residents, San Francisco, 1990-1995

Disease category	All ages	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
III. Non-communicable (continued)								
F. Neurologic conditions	11,100	248	327	380	461	1,423	2,107	6,155
1. Dementia/degenerative CNS	4,064	0	164	73	0	92	138	3,597
a. Alzheimer's disease	1,959	0	0	0	0	0	88	1,870
2. Parkinson's disease	1,936	0	0	0	0	0	104	1,832
3. Multiple sclerosis	671	0	0	0	0	92	403	177
G. Cardiovascular diseases	224,868	412	246	307	762	18,015	59,684	145,442
1. Rheumatic heart disease	1,858	0	0	0	0	92	629	1,137
2. Ischemic heart disease	141,184	0	0	0	63	7,461	39,576	94,084
3. Cerebrovascular (Stroke)	41,182	82	82	151	315	3,503	9,175	27,873
4. Inflam/infect/cardiomyop	11,756	165	164	156	63	2,880	3,725	4,604
5. Hypertension	2,064	0	0	0	0	92	604	1,368
H. Respiratory diseases	30,317	248	164	73	126	2,914	7,540	19,253
1. Chronic obstr. pulm. disease	18,894	0	164	0	0	281	4,365	14,086
2. Asthma	3,473	0	0	0	63	939	1,232	1,238
I. Digestive diseases	41,659	330	82	151	126	13,133	16,504	11,333
1. Peptic ulcer diseases	2,336	0	0	0	0	290	768	1,277
2. Chronic liver & cirrhosis	23,871	0	0	0	0	8,952	11,636	3,283
3. Appendicitis	242	0	0	0	0	140	93	9
J. Genito-urinary diseases	10,344	82	0	0	63	1,471	2,494	6,234
1. Nephritis & nephrosis	5,332	82	0	0	63	905	1,478	2,804
2. Benign prostatic hypertrophy	91	0	0	0	0	0	0	91
K. Skin diseases	1,080	0	0	0	63	363	200	454
L. Musculoskel./connective tissue	2,718	0	0	156	68	992	637	865
1. Rheumatoid arthritis	290	0	0	0	0	58	108	123
2. Osteoarthritis	59	0	0	0	0	0	0	59
M. Congenital anomalies	9,895	5,775	1,309	594	646	876	370	325
1. Anencephaly	248	248	0	0	0	0	0	0
2. Down syndrome	79	0	0	0	63	0	0	16
3. Congenital heart disease	5,130	2,310	655	443	519	663	331	209
IV. Injuries	139,657	1,320	1,800	2,468	24,965	75,990	24,899	8,214
A. Unintentional injuries	72,921	908	1,228	1,874	9,077	41,217	13,180	5,437
1. Motor Vehicle-Traffic	18,444	82	409	1,130	5,024	7,827	2,558	1,414
a. Occupant, MVT	5,261	82	82	151	1,874	2,315	580	177
b. Motorcyclist, MVT	867	0	0	0	126	707	34	0
c. Pedalcyclist, MVT	505	0	0	78	0	325	102	0
d. Pedestrian, MVT	5,353	0	327	526	772	1,690	1,116	922
2. Poisonings, UI	34,128	0	0	78	1,534	25,679	6,422	416
a. Drug poisoning, UI	33,023	0	0	0	1,398	25,035	6,208	382
3. Falls, UI	7,445	82	82	0	573	3,059	1,769	1,879
4. Fires, UI	1,888	165	327	151	257	479	297	211
5. Drownings, UI	3,164	0	164	219	782	1,312	555	132
6. Firearm, UI	584	0	0	0	466	111	0	6
B. Intentional injuries	61,662	330	573	594	15,311	31,607	10,641	2,607
1. Suicide	32,729	0	0	73	5,067	17,534	7,809	2,246
a. Firearm, suicide	8,252	0	0	0	1,937	3,553	2,060	702
2. Homicide	28,571	330	573	521	10,180	13,821	2,794	352
a. Firearm, homicide	18,893	0	0	365	8,632	8,756	1,003	137
b. Child battering	0	0	0	0	0	0	0	0
3. Legal intervention	315	0	0	0	63	252	0	0
4. War	48	0	0	0	0	0	39	9
C. Intention undetermined injury	5,074	82	0	0	578	3,166	1,077	170
1. Firearm, IU	282	0	0	0	68	189	25	0
V. Non-Categorized	4,831	248	164	0	578	2,716	915	212

A3-Table 51: Number of Deaths, Females, San Francisco, 1990-1995

Disease category	All ages*	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
III. Non-communicable (continued)								
F. Neurologic conditions	404	2	4	3	2	14	33	346
1. Dementia/degenerative CNS	304	0	2	0	0	0	2	300
a. Alzheimer's disease	157	0	0	0	0	0	0	157
2. Parkinson's disease	71	0	0	0	0	0	2	69
3. Multiple sclerosis	22	0	0	0	0	2	10	10
G. Cardiovascular diseases	9,010	2	1	2	3	100	517	8,380
1. Rheumatic heart disease	80	0	0	0	0	1	11	68
2. Ischemic heart disease	5,462	0	0	0	0	25	277	5,156
3. Cerebrovascular (Stroke)	2,029	0	0	2	2	31	132	1,862
4. Inflam/infect/cardiomyop	220	0	1	0	0	16	25	178
5. Hypertension	97	0	0	0	0	1	9	87
H. Respiratory diseases	931	0	2	0	1	19	94	813
1. Chronic obstr. pulm. disease	622	0	2	0	0	2	52	564
2. Asthma	78	0	0	0	0	10	18	50
I. Digestive diseases	727	2	0	0	1	57	122	544
1. Peptic ulcer diseases	71	0	0	0	0	0	7	64
2. Chronic liver & cirrhosis	220	0	0	0	0	42	82	96
3. Appendicitis	3	0	0	0	0	1	1	1
J. Genito-urinary diseases	420	0	0	0	1	10	35	374
1. Nephritis & nephrosis	173	0	0	0	1	5	20	147
2. Benign prostatic hypertrophy	0	0	0	0	0	0	0	0
K. Skin diseases	38	0	0	0	0	2	4	32
L. Musculoskel./connective tissue	74	0	0	2	1	12	11	48
1. Rheumatoid arthritis	10	0	0	0	0	1	2	7
2. Osteoarthritis	5	0	0	0	0	0	0	5
M. Congenital anomalies	72	28	6	3	5	10	8	12
1. Anencephaly	2	2	0	0	0	0	0	0
2. Down syndrome	0	0	0	0	0	0	0	0
3. Congenital heart disease	49	11	5	3	5	9	7	9
IV. Injuries	882	8	6	8	61	283	195	316
A. Unintentional injuries	547	5	5	7	31	159	96	241
1. Motor Vehicle-Traffic	142	1	2	6	19	35	27	52
a. Occupant, MVT	45	1	0	1	10	15	10	8
b. Motorcyclist, MVT	3	0	0	0	2	1	0	0
c. Pedalcyclist, MVT	0	0	0	0	0	0	0	0
d. Pedestrian, MVT	65	0	2	3	3	8	14	35
2. Poisonings, UI	152	0	0	0	7	92	40	11
a. Drug poisoning, UI	147	0	0	0	6	91	39	9
3. Falls, UI	128	0	0	0	2	12	11	103
4. Fires, UI	21	1	1	1	2	2	2	12
5. Drownings, UI	17	0	1	0	1	6	4	5
6. Firearm, UI	1	0	0	0	0	1	0	0
B. Intentional injuries	301	2	1	1	28	112	83	72
1. Suicide	200	0	0	0	14	61	64	60
a. Firearm, suicide	33	0	0	0	4	15	13	1
2. Homicide	101	2	1	1	14	51	19	12
a. Firearm, homicide	47	0	0	1	11	22	6	6
b. Child battering	0	0	0	0	0	0	0	0
3. Legal intervention	0	0	0	0	0	0	0	0
4. War	0	0	0	0	0	0	0	0
C. Intention undetermined injury	34	1	0	0	2	12	16	3
1. Firearm, IU	0	0	0	0	0	0	0	0
V. Non-Categorized	36	2	1	0	5	13	8	7

*Includes subjects whose ages were missing.

A2-Table 50: Number of Deaths, Males, San Francisco, 1990-1995

Disease category	All ages*	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
III. Non-communicable (continued)								
F. Neurologic conditions	346	1	0	2	5	16	38	284
1. Dementia/degenerative CNS	160	0	0	1	0	2	3	154
a. Alzheimer's disease	76	0	0	0	0	0	3	73
2. Parkinson's disease	125	0	0	0	0	0	2	123
3. Multiple sclerosis	6	0	0	0	0	0	4	2
G. Cardiovascular diseases	8,330	3	2	2	9	282	1,501	6,515
1. Rheumatic heart disease	44	0	0	0	0	1	8	35
2. Ischemic heart disease	5,548	0	0	0	1	136	1,079	4,320
3. Cerebrovascular (Stroke)	1,345	1	1	0	3	44	173	1,122
4. Inflam/infect/cardiomyop	364	2	1	2	1	42	95	221
5. Hypertension	70	0	0	0	0	1	12	57
H. Respiratory diseases	1,111	3	0	1	1	41	169	893
1. Chronic obstr. pulm. disease	769	0	0	0	0	4	104	658
2. Asthma	72	0	0	0	1	9	22	40
I. Digestive diseases	1,104	2	1	2	1	220	400	474
1. Peptic ulcer diseases	93	0	0	0	0	6	18	69
2. Chronic liver & cirrhosis	551	0	0	0	0	147	281	119
3. Appendicitis	4	0	0	0	0	2	2	0
J. Genito-urinary diseases	351	1	0	0	0	21	48	281
1. Nephritis & nephrosis	173	1	0	0	0	14	28	130
2. Benign prostatic hypertrophy	15	0	0	0	0	0	0	15
K. Skin diseases	25	0	0	0	1	6	2	16
L. Musculoskel./connective tissue	41	0	0	0	0	8	10	23
1. Rheumatoid arthritis	4	0	0	0	0	0	2	2
2. Osteoarthritis	1	0	0	0	0	0	0	1
M. Congenital anomalies	83	42	10	5	5	7	3	11
1. Anencephaly	1	1	0	0	0	0	0	0
2. Down syndrome	2	0	0	0	1	0	0	1
3. Congenital heart disease	38	17	3	3	3	4	3	5
IV. Injuries	2,563	8	16	25	326	1,221	551	391
A. Unintentional injuries	1,365	6	10	18	110	662	296	253
1. Motor Vehicle-Traffic	296	0	3	9	59	113	51	61
a. Occupant, MVT	64	0	1	1	19	29	8	6
b. Motorcyclist, MVT	13	0	0	0	0	12	1	0
c. Pedalcyclist, MVT	10	0	0	1	0	6	3	0
d. Pedestrian, MVT	99	0	2	4	9	25	20	39
2. Poisonings, UI	608	0	0	1	17	427	143	14
a. Drug poisoning, UI	588	**0**	0	0	16	415	138	13
3. Falls, UI	195	1	1	0	7	50	46	90
4. Fires, UI	33	1	3	1	2	8	7	10
5. Drownings, UI	54	0	1	3	11	20	13	6
6. Firearm, UI	9	0	0	0	7	1	0	1
B. Intentional injuries	1,109	2	6	7	209	507	238	130
1. Suicide	645	0	0	1	65	289	173	111
a. Firearm, suicide	188	0	0	0	26	56	49	55
2. Homicide	456	2	6	6	143	213	64	18
a. Firearm, homicide	302	0	0	4	122	144	24	5
b. Child battering	0	0	0	0	0	0	0	0
3. Legal intervention	6	0	0	0	1	5	0	0
4. War	2	0	0	0	0	0	1	1
C. Intention undetermined injury	89	0	0	0	7	52	17	8
1. Firearm, IU	6	0	0	0	1	4	1	0
V. Non-Categorized	84	1	1	0	4	42	19	11

*Includes subjects whose ages were missing.

A1-Table 49: Number of Deaths, All Residents , San Francisco, 1990-1995

Disease category	All ages*	Age < 1	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65+
III. Non-communicable (continued)								
F. Neurologic conditions	750	3	4	5	7	30	71	630
1. Dementia/degenerative CNS	464	0	2	1	0	2	5	454
a. Alzheimer's disease	233	0	0	0	0	0	3	230
2. Parkinson's disease	196	0	0	0	0	0	4	192
3. Multiple sclerosis	28	0	0	0	0	2	14	12
G. Cardiovascular diseases	17,340	5	3	4	12	382	2,018	14,895
1. Rheumatic heart disease	124	0	0	0	0	2	19	103
2. Ischemic heart disease	11,010	0	0	0	1	161	1,356	9,476
3. Cerebrovascular (Stroke)	3,374	1	1	2	5	75	305	2,984
4. Inflam/infect/cardiomyop	584	2	2	2	1	58	120	399
5. Hypertension	167	0	0	0	0	2	21	144
H. Respiratory diseases	2,042	3	2	1	2	60	263	1,706
1. Chronic obstr. pulm. disease	1,391	0	2	0	0	6	156	1,222
2. Asthma	150	0	0	0	1	19	40	90
I. Digestive diseases	1,831	4	1	2	2	277	522	1,018
1. Peptic ulcer diseases	164	0	0	0	0	6	25	133
2. Chronic liver & cirrhosis	771	0	0	0	0	189	363	215
3. Appendicitis	7	0	0	0	0	3	3	1
J. Genito-urinary diseases	771	1	0	0	1	31	83	655
1. Nephritis & nephrosis	346	1	0	0	1	19	48	277
2. Benign prostatic hypertrophy	15	0	0	0	0	0	0	15
K. Skin diseases	63	0	0	0	1	8	6	48
L. Musculoskel./connective tissue	115	0	0	2	1	20	21	71
1. Rheumatoid arthritis	14	0	0	0	0	1	4	9
2. Osteoarthritis	6	0	0	0	0	0	0	6
M. Congenital anomalies	155	70	16	8	10	17	11	23
1. Anencephaly	3	3	0	0	0	0	0	0
2. Down syndrome	2	0	0	0	1	0	0	1
3. Congenital heart disease	87	28	8	6	8	13	10	14
IV. Injuries	3,445	16	22	33	387	1,504	746	707
A. Unintentional injuries	1,912	11	15	25	141	821	392	494
1. Motor Vehicle-Traffic	438	1	5	15	78	148	78	113
a. Occupant, MVT	109	1	1	2	29	44	18	14
b. Motorcyclist, MVT	16	0	0	0	2	13	1	0
c. Pedalcyclist, MVT	10	0	0	1	0	6	3	0
d. Pedestrian, MVT	164	0	4	7	12	33	34	74
2. Poisonings, UI	760	0	0	1	24	519	183	25
a. Drug poisoning, UI	735	0	0	0	22	506	177	22
3. Falls, UI	323	1	1	0	9	62	57	193
4. Fires, UI	54	2	4	2	4	10	9	22
5. Drownings, UI	71	0	2	3	12	26	17	11
6. Firearm, UI	10	0	0	0	7	2	0	1
B. Intentional injuries	1,410	4	7	8	237	619	321	202
1. Suicide	845	0	0	1	79	350	237	171
a. Firearm, suicide	221	0	0	0	30	71	62	56
2. Homicide	557	4	7	7	157	264	83	30
a. Firearm, homicide	349	0	0	5	133	166	30	11
b. Child battering	0	0	0	0	0	0	0	0
3. Legal intervention	6	0	0	0	1	5	0	0
4. War	2	0	0	0	0	0	1	1
C. Intention undetermined injury	123	1	0	0	9	64	33	11
1. Firearm, IU	6	0	0	0	1	4	1	0
V. Non-Categorized	120	3	2	0	9	55	27	18

*Includes subjects whose ages were missing.

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GLOSSARY

Age-adjusted death rate is a rate which accounts for differences in age distributions across populations. The composite rate for a population resulting from applying its age-specific death rates to a population with the age distribution of a standard population (usually the 1940 U.S. standard million population). Age-adjusted rates based on the same standard population can be compared. Also called age-adjusted mortality rate.

Age distribution is the percentage of any given population in each age group (i.e., the percent of the population ages 5 to 14, 15 to 24, 25 to 44, 65 or older, etc.). The age distributions of populations are important to consider when using rates because disease and death rates differ widely by age group. Age-adjusted death rates and life expectancies allow summary comparisons of the burden of mortality in populations with different age distributions.

Age-specific rate is a rate for a specified age group (e.g., the age-specific rate for ages 25 to 44 is the number of deaths in a given time period of people ages 25 to 44, divided by the number of people ages 25 to 44 in the population in that time period, times 1,000 [to get the rate per 1,000 population]). Age-adjusted rates are weighted averages of age-specific rates; as such, they may mask differences between populations in age-specific rates. Age-specific rates for the same age groups can be directly compared.

Average SEYLL is the average number of SEYLL (standard expected years of life lost) per death for a specified cause in a specified population. A rough measure of the degree of prematurity of deaths from given causes: the higher the average SEYLL, the younger the "average" age of death .

Causal risk factor, contributing factor, or determinant is a factor established as causing or contributing to the outcome or condition of interest (here, contributing to the specific cause of death).

Cause of death is a general name for the category of the ICD-9 code listed as the "underlying cause of death" on the death certificate.

Contributing factor, causal risk factor, or determinant is a factor established as causing or contributing to the outcome or condition of interest (here, contributing to the specific cause of death).

Crude death rate is a death rate calculated for a population, without accounting for its age distribution. Crude death rates provide a measure of overall burden of mortality in a population, but are misleading to compare across populations with different age distributions.

Death rate or mortality rate is the rate expressing proportion of a population dying from a specified cause or causes in a specified time period, usually expressed as deaths per year per 1,000 people in the population.

Demographics are the basic characteristics of populations, especially their distributions by age, sex, and ethnicity. Demographic characteristics are especially important to consider in population health assessments because they all reflect differences in rates of health conditions, exposure to determinants of health conditions, and health practices including use of health services.

Determinant, contributing factor or causal risk factor is a factor that can cause a particular outcome (e.g., smoking is a determinant of lung cancer, COPD, fires, etc.).

ICD-9 International Classification of Diseases, 9th edition is an internationally used method for classifying and coding specific conditions and groups of conditions.

Intentional injury is an injury intentionally inflicted on oneself or others. The main mortality causes are suicide, homicide, and legal intervention.

Life expectancy is the average number of years an individual is expected to live if current age-specific mortality rates continue to apply. Often reported as life expectancy at birth, but can apply to life expectancy at any given age. An overall measure of a population's current total mortality burden.

Morbidity is disease or injury, any departure from a state of physiological or psychological well-being.

Mortality is death.

Mortality rate, death rate is the number of deaths in a given population in a given time period, usually expressed as deaths per year per 1,000 people in the population (e.g., mortality rate for a population of 2,000 in which 50 deaths occur in one year is 25).

Neighborhood for this study San Francisco was defined geographically by U.S. Postal ZIP codes; these areas and the names of local neighborhoods roughly contained in the ZIP codes are shown in Table 46, p. 81.

Population attributable fraction is a measure of the amount of a disease or injury in a population that is attributed to exposure to a particular factor. The proportion or percentage of cases of a health condition in a population that can be said to be due to exposure to a particular factor which can cause that condition (e.g., over 85% of lung cancers have been attributed to exposure to tobacco smoke, so the population attributable fraction of tobacco smoking for lung cancer is over 85).

Prevention attribution matrix is our table for classifying the relationships between a set of conditions (e.g., leading causes of death) and determinants whose control could prevent a portion (up to the population attributable fraction) of those conditions from occurring (see Tables 5-7, pp. 23-25).

Rate is number of events of interest occurring in a defined population during a specified time period, usually expressed per specified unit size of the population involved (e.g., death rate usually reported as numbers of deaths in a given population in a given year per 1,000 people in that population at midyear).

Rate ratio is the ratio of two rates. For a ratio of A/B, the risk of A is compared to the risk of B; B is used as the standard of comparison.

Risk factor is an attribute or exposure associated with increased risk of death or morbidity.

SEYLL is standard expected years of life lost.

Specific cause of death generally refers to a relatively narrow category of the ICD-9 code listed as the "underlying cause of death" on the death certificate. In this study, cause of death categories designated as specific enough to be useful for guiding prevention efforts, and eligible to appear in a leading cause of death ranking (see Table 2, p. 15).

Standard expected years of life lost (SEYLL) When a person dies the SEYLL is the years of life lost based on the life expectancy for a person of that age. For a population, SEYLL is the sum, for all persons dying from a particular cause, of the years they would have lived if they had experienced a normal life expectancy. A measure of the relative impact of the various diseases and lethal forces on a society.

Standard population is a population whose age distribution is used as a standard for calculating age-adjusted rates. The U.S. standard for decades has been the 1940 U.S. population; next year it will change to the U.S. 2000 population (which has a much higher proportion of older people than the 1940 population). Only rates standardized to the same standard population can be directly compared.

Standardization is a weighted averaging according to a standard distribution. Age standardization involves calculating rates based on a standard population's age distribution; rates so calculated are called age-adjusted rates.

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