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Motor Vehicle Traffic Crashes as a Leading Cause of Death in the U.S., 1992

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16. Abstract <p>This report examines the status of motor vehicle traffic crashes as a leading cause of death by age and sex of the person. The data used in this report are based upon mortality data for the United States for the calendar year 1992 from the U. S. Department of Health and Human Services' National Center for Health Statistics (NCHS). NCHS compiles information from a census of death certificate records furnished to NCHS by the fifty States, the District of Columbia, and the five boroughs of New York City. The NCHS data are used in this report to illustrate how motor vehicle crash deaths rank as a leading cause of death for all ages, for males and females separately, and for various age/sex categories. The number of deaths from motor vehicle traffic crashes obtained from NCHS are approximately 2% greater than that reported in FARS due to reporting differences.</p> <p>For persons ages 5 - 27, motor vehicle traffic crashes were the leading cause of death, representing 26% of all deaths in this age group and 36% of all motor vehicle traffic deaths that occurred in 1992. Among males, motor vehicle traffic deaths were the leading cause of death for ages 6 -9, 11-18, and 20-22. For females, motor vehicle traffic deaths were the leading cause of death for ages 5 - 28, representing 27% of all deaths for females in this age group and 34% of all female deaths in 1992. Motor vehicle traffic crashes in 1992 ranked 8th as a cause of death in the U. S., accounting for 39,985 deaths (1.8% of all deaths).</p>					
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Highlights for 1992

- o Motor vehicle traffic crashes ranked 8th behind heart disease, cancer and stroke as a leading cause of death in the United States, accounting for 39,985 lives or 1.8% of total deaths for the year. This was about 1 out of every 54 deaths that occurred. For males, traffic crashes also were the 8th ranked cause of death accounting for 1 out of every 41 male deaths, or a total of 27,221 lives. For females, they were the 9th ranked cause of death, claiming 12,764 lives, or 1 out of every 83 female deaths that occurred.
- o While nontransport accidents (e.g., falling, poisoning, drowning, etc.) ranked first among both males and females as an external cause of death, traffic crashes still ranked a close second for both sexes, though accounting for different proportions of deaths in each case; almost 1 out of every 4 male deaths due to external factors, and about 1 out of every 3 such deaths for females. When comparing external causes of death for both sexes combined, the likelihood of dying from a traffic crash was 31% greater than dying as a result of suicide, 57% greater than dying from homicide, and 13.1 times greater than being killed in an crash involving some other mode of transport such as a railway train, aircraft or boat.
- o Traffic crashes caused almost one-half of all accidental deaths that occurred, about 47% of all such deaths for males and 44% for females. When comparing unintentional death in 1992 for both sexes combined, the likelihood of dying from a traffic crash was 2.2 times greater than dying from falling (generally the No. 2 cause of accidental death, regardless of year), 4.6 times greater than dying from poisoning, 8.8 times greater than dying from suffocation and 9.1 times greater than dying in a fire.
- o For both sexes combined, traffic crashes were a major cause of death for all ages 1-41. They were the No. 1 cause for every age 5-27, and ranked 2-4 and 2-6 as a leading cause for ages 1-4 and 28-41, respectively. For males, they also were a major cause of death for ages 1-41. They ranked No. 1 for every age 6-9, 11-18 and 20-22; ranked 2-4 for ages 1-5, 10, 19 and 23-34; and ranked 4-6 for ages 35-41. For females, they were a major cause for ages 1-39; first-ranked for every age 5-28, and ranked 2-3 and 2-4 for ages 1-4 and 29-39, respectively.
- o For those ages where traffic crashes were the leading cause of death:
 - Ages 5-27 for both sexes combined: there were 14,494 traffic deaths. This was 26% of the death total for the age group and 36% of all traffic deaths that occurred.
 - Ages 6-9, 11-18 and 20-22 for males: there were 6,006 traffic deaths. This was 28% of all male deaths at these ages, but only 22% of the total for male traffic deaths.
 - Ages 5-28 for females: there were 4,388 traffic deaths. This was 27% of the female death total for the age group and 34% of the total for female traffic deaths.
- o Fifty-four percent of all persons killed in traffic crashes were under the age of 36. For males, 57% were under 36; for females, 48%.

- o For ages 1-39, where traffic crashes were a major cause of death for both sexes, approximately 2.5 times as many males as females died as a result of traffic crashes (17,157 vs. 6,792), and the male population death rate or risk of death from traffic crashes for these ages also was 2.5 times the female risk.
- o For ages 42 and above, where traffic crashes were not a major cause of death for either sex, only 1.6 times as many males as females died in traffic crashes (9,170 vs. 5,594), but the male risk of traffic death for these ages was still almost twice the female risk.
- o For both sexes combined, ages 18-22 had the highest single-age incidence of traffic deaths, with a total of 5,868 victims for all five ages. This was 30% of all deaths at these ages, 23% more than from homicide, the second-ranked cause at these ages, and almost 15% of total traffic deaths for all ages. For males, the highest incidence of traffic deaths occurred at ages 18-22, with 4,365 victims. For females, ages 16-19 and 21 experienced the most traffic deaths, with 1,641 for all five ages combined.
- o For males aged 19-37, there was a very high correlation between traffic crash deaths and homicides; for most ages of this interval, the death counts associated with each cause were generally in very close agreement. For the entire age interval, there were 12,371 male traffic deaths, which was only 326 or 2.7% more than the 12,045 male homicides that occurred. Ages 19-27 are especially interesting. Homicide was the leading cause of male death for ages 19 and 23-27 and the No. 2 cause for the remaining ages 20-22. For traffic crashes, it was just the reverse; the No. 2 cause of male death for ages 19 and 23-27 and the No. 1 cause for ages 20-22. And for these nine ages 19-27, which included four of the five ages of highest incidence of male traffic deaths (ages 18-22, see above), traffic crashes caused 0.35% or only marginally more male deaths than homicide (6,857 vs. 6,833). For females, traffic crash deaths were relatively uncorrelated with homicides at most ages.
- o Involvement in traffic crashes does not disappear with advancing age. For males aged 70 and over, there were 2,983 traffic deaths. While this was only 11% of total traffic deaths for males of all ages, the male risk of traffic death for these ages was 59% above the average risk of traffic death for males of all ages. For females aged 70 and over, there were 2,375 traffic deaths, or almost 19% of the female traffic death total for all ages, and the female risk of traffic death for these ages was 77% above the average for females of all ages.
- o The average age at death from all causes was 70.7 years (66.9 for males and 74.8 for females), whereas the average age of those killed in motor vehicle traffic crashes was 39.3 years (37.9 for males and 42.2 for females).

I. Introduction

This report examines the status of motor vehicle traffic crashes as a leading or major cause of death in the United States in 1992. It is based on a study, by age and sex, of the rank-ordering¹ of 63 causes of death which have been adopted by the National Center for Statistics and Analysis (NCSA) of the National Highway Traffic Safety Administration (NHTSA) to study leading causes of death in the U.S. This study was originally prompted by a number of unanswered questions regarding adequate background material and appropriate information pertaining to the general concept of motor vehicle traffic crashes as a leading cause of death. The more important of these questions are the following:

1. The general statement "traffic crashes are the 6th (or 7th or 8th, etc.) leading cause of death in the United States..." is frequently made without proper qualification and, as such, is not only unclear as to specific meaning but leaves a great deal to be desired in the way of adequate information about the topic. For example, to what extent is this statement true? For all ages combined, or only for certain specific ages? For both sexes separately, or only for both sexes combined? How do traffic crashes rate in rank-order as a cause of death relative to other top-ranked causes? That is, are traffic crashes a major or minor sixth or seventh-ranked cause? What are the other top-ranked causes of death in the U.S. and does this ranking tend to be the same from one year to another?
2. A closely related statement "traffic crashes are the leading cause of death between the ages of X and Y years..." can also prove troublesome, if made without proper qualification, and leaves a number of questions unanswered. For example, is this statement true for every single age or just for all ages combined of the stated age interval? For what minimum age interval does the statement apply to every age of the interval? For what maximum age interval does the statement hold true for all ages combined? In either case, by what margin in number or percentage of deaths are traffic crashes the leading cause of death over lesser-ranked causes? Does the statement apply to each sex separately or only to both sexes combined?
3. What data are generally used for cause-of-death studies? The data used for this study² are based on complete mortality information for the United States for the year 1992, obtained from the National Center for Health Statistics (NCHS) of the U.S. Department of Health and Human Services. These data are compiled annually by the NCHS from a census of death records (certificates) furnished by the 50 states, the District of Columbia and the independent death registration areas representing the five boroughs of New York City. Although the United States death registration system also includes Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas, in this report the term "United States" refers only to the aggregate of the 50 States (including New York

¹ Rank based on number of deaths.

² Obtained from public-use data files produced by the NCHS for computer usage. See Reference 1.

City) and the District of Columbia.³ Complete and fully edited U.S. mortality data are generally not available to the public until approximately 2 ½ to 3 years after the calendar year of the data.

4. How are causes of death categorized? Any study of rank orderings of data is ultimately dependent upon how the data in question are classified in the first place. These NCHS mortality data are categorized as to cause of death according to the International Classification of Diseases (ICD),⁴ and the specific data used for this report reflect, for each death, a single underlying cause as opposed to multiple causes of death. This single underlying cause of death is defined to be:

- a. That disease or injury which initiated the train of events leading directly to death, or
- b. The circumstances of the crash or violence which produced the fatal injury.

Currently, 914 single underlying causes of death have been adopted by the ICD as basic (3-digit) death-cause categories; 722 are classified on the basis of internal bodily disease or disorder, and the remaining 192 are classified on the basis of bodily injury arising from external factors such as crashes or acts of violence (e.g., homicide, suicide), adverse effects of surgical/medical care, legal intervention or operations of war. These 192 mortality categories do not include any of the injury and poisoning categories (the "N-codes"), but include only those that reflect externally-caused death. Based on these 914 single underlying causes, as categorized by the ICD, the NCSA has adopted a reduced listing comprising 63 causes of death⁵ in order to more effectively study leading causes of death, and the role of traffic crashes as a leading cause, in the United States. This 63-cause listing consists of 14 of the single underlying causes plus 49 "aggregated" causes, which are the result of grouping together highly related causes from the remaining 900 single causes. The 14 underlying causes which have been retained, and not grouped with other possible related causes, consist of prominent diseases or disorders such as septicaemia, diabetes mellitus, multiple sclerosis, etc., each of which takes a significant toll of human life. The 49 aggregated causes, on the other hand, consist of groups of biologically related internal bodily disorders or logically related external causes which are better studied and more easily understood as grouped causes. For example, all diseases of the circulatory system which are heart-related are grouped together and considered under the comprehensive designation "Diseases of the Heart." All of the many different and complex forms of malignancy are considered as "Malignant Neoplasms." Similarly, all of the many different kinds of crashes that do not involve transport vehicles or other transport conveyances in motion (e.g., falling, poisoning, fire, drowning, etc.) are considered simply as "Nontransport accidents."

³ For additional details regarding sources, definitions and classifications of mortality data for the United States, see Reference 2.

⁴ Ninth Revision, International Classification of Diseases, 1975. The ICD is regulated by the World Health Organization and is currently supported by more than 60 member nations, including all major world powers except India. Also currently not included are a number of African states and other small countries. For additional details regarding the ICD, see Reference 3.

⁵ See Table 1 of the Appendix to this report.

This NCSA-adopted listing of 63 causes of death is comprehensive in that all 914 underlying causes are represented. Fifty-six of these 63 adopted causes reflect the 722 underlying causes based on internal morbid bodily conditions, while the remaining 7 NCSA-adopted causes reflect the 192 underlying causes based on external factors such as crashes and acts of violence. This 63-cause listing is also not an arbitrary listing, but is generally in close agreement with a special listing of death causes used by the NCHS to report on leading causes of death in the United States.⁶ The latter differs from the NCSA listing primarily in causal areas related to infectious diseases that currently result in only small numbers of deaths (e.g., whooping cough, measles, syphilis, etc.), but are of continuing interest as a public health concern, and, secondarily, in those areas relating to accidental death. For example, the NCHS listing of leading causes of death shows only two breakdowns for accidental death, namely, total motor vehicle crashes and all other crashes/adverse effects, neither of which is included, per se, in the ranking process. The NCSA listing, on the other hand, provides for a rank-ordered breakdown of accidental death into the 4 basic categories of obvious importance to NHTSA: motor vehicle traffic, motor vehicle nontraffic, other transport and nontransport accidents. In general, however, leading causes that are responsible for large numbers of deaths such as heart disease, cancer, stroke, chronic pulmonary diseases, etc. are virtually identical in both listings.

5. Finally, there may be some confusion regarding the distinction between "leading cause" and "major cause" of death. For this study, a "leading cause" of death for any population grouping is considered to be any one of the 10-15 top-ranked causes for that grouping. A "major cause" of death is merely an abbreviation for "major leading cause" of death and is generally considered to be among the three or four top-ranked causes. When not first-ranked, the importance of a death cause relative to other death causes, in terms of number of resulting deaths, is determined by the evaluation of associated raw death counts or scores initially expressed as "standard scores." This is a statistical scoring procedure widely used in educational and psychological testing.⁷

Using a valid classification of causes of death, the primary purpose of this report then, is to provide clear and concise information on traffic crashes as a leading cause of death in the United States, in relation to basic population demographics (age and sex), and in relation to other leading causes. This is the third in the series of such reports. The first report on this topic examined deaths occurring during calendar year 1979. This was the first year of implementation of revised cause-of-death classifications under the 9th Revision of the ICD and, as a consequence, 1979 provides a convenient base year for data comparisons with subsequent years. The results of this initial study were presented in a draft technical report dated April, 1985. The second report examined deaths occurring during calendar year 1986, and study results were presented in a draft technical report dated December, 1989.⁸ Beginning with the

⁶ NCHS cause-of-death rankings are based on the NCHS List of 72 Selected Causes of Death and the category Human Immunodeficiency Virus (HIV) Infection. See discussion of NCHS procedure for cause-of-death ranking on page 11 of Section 7 (Technical Appendix) of Reference 2, and refer to Table 2 of the Appendix to this report for the NCHS-adopted listing of 38 death causes for ranking purposes. These 38 causes comprise 37 from the 72-cause listing plus HIV.

⁷ Reference 4

⁸ References 5 and 6.

current report, which reviews the U.S. mortality experience for calendar year 1992, there will be a full report on this topic for each succeeding calendar year thereafter. For the intervening years 1980-85, and 1987-91, which were not scheduled for study reports, only tabular data will be available.

The population data used to compute the death rates shown in this report are the latest estimated resident population of the United States as of July 1, 1992, as determined by the Bureau of the Census.⁹ All deaths and death rates shown reflect U.S. resident data only. Nonresident deaths in the U.S. are fully recorded, but nonresident population figures are generally not available due to the difficulty of estimating the number of nonresidents living or traveling in the U.S. during any given year. Consequently, all death rates are computed only with fully compatible (i.e., resident) data in both numerator and denominator. All mortality statistics, then, reflect only resident data.

Unless otherwise specified, all death rates shown are "crude" death rates, that is, they represent the actual death rate prevailing in the U.S. for 1992, by stated cause of death, for each specific population subgroup. They are the annual number of deaths resulting from each stated cause for any subgroup, divided by the estimated mid-1992 U.S. population for that subgroup, multiplied by 100,000. Some death rates shown, however, are "age-adjusted." These represent the average of crude death rates for specific population subgroups which have been adjusted to eliminate differences in the age composition of the U.S. population for 1992, as compared to that of a "standard" population for the United States. To date, the total resident population of the U.S. as enumerated in 1940 is usually selected as the standard population; this practice has generally been followed in this report. When the death rates are age-adjusted according to a different standard population, this is indicated in the text. Age-adjusted death rates show what the level of mortality would be if there were no changes in the age composition of the U.S. population from one year to the next, or from one subgroup (e.g., sex, race, etc.) to another, for any given year. They are better indicators than unadjusted (crude) death rates for showing changes in death rates over a period of time when the age distribution of the population is changing. They are also better indicators for comparisons of mortality between subgroups of the population (e.g., sex, race) with different age distributions.¹⁰

It is also important to point out that the annual traffic crash death counts obtained from the NCHS mortality data are approximately 2% greater than those obtained from NHTSA's Fatal Analysis Reporting System (FARS). The primary reason for this discrepancy between the two data sources lies in reporting differences. FARS reports on fatal traffic crashes occurring during the calendar year, but includes only those in which death occurs within 30 days of the crash. The NCHS data, on the other hand, include all traffic deaths occurring during the calendar year, even if the crash took place in the previous year. However, all deaths from motor vehicle crashes that occur more than one year after the crash are categorized only as due to "late effects of motor vehicle crash." Since no other crash information is provided (e.g., traffic or nontraffic occurrence, occupant of vehicle or pedestrian, etc.), these deaths are usually excluded from NCHS annual summaries of deaths from motor vehicle crashes.

⁹ Reference 7.

¹⁰ For additional details regarding crude death rates, age-adjusted according to NCHS procedures, see Reference 2. For additional details regarding general standardization procedures for crude death rates, see Reference 8 or 9.

There are very few of these, generally about 300-400 per year. In 1992, there were 351 traffic deaths due to late effects.

Section II of this report examines motor vehicle traffic crashes and the other three major leading causes of death, for all ages combined. Section III presents an overview of major leading causes of death at different age levels, while Section IV analyzes traffic crashes as a leading cause at these ages. Section V examines deaths and death rates from traffic crashes among older persons.

II. Major Leading Causes Of Death For All Ages Combined

In 1992, a total of 2,175,613 deaths occurred among residents of the United States; 6,095 more than in 1991 and 27,150 more than in 1990. The age-adjusted¹¹ death rate for 1992 was the lowest ever recorded, 504.5 deaths per 100,000 (U.S. standard million) population, and life expectancy at birth for the total population attained a record high of 75.8 years, with females expected to outlive males by an average of 6.8 years (79.1 for females vs. 72.3 for males). Nearly 7 percent more males than females died during the year (1,122,336 males and 1,053,277 females), with the age-adjusted death rate for males 72 percent greater than that for females (656.0 versus 380.3).

Tables 1a and 1b which follow present data on the 15 leading causes of death in 1992 for males and females of all ages, respectively, while Table 1c presents similar data for both sexes combined. These 15 leading causes accounted for approximately 87% of total deaths for each sex. The first 3 leading causes of death for both sexes and all ages in 1992 were: (1) diseases of the heart; (2) malignant neoplasms (cancer); and (3) cerebrovascular diseases (stroke). These three causes have remained unchanged in order of ranking as the first 3 leading causes of death for both sexes for many years. Motor vehicle traffic crashes, on the other hand, while ranking 8th as a cause of death for males and for both sexes combined in 1992, ranked only 9th for females.

Diseases of the Heart

In 1992, this No. 1 cause of death in the United States was responsible for 357,545 male and 360,161 female deaths (717,706 total) or approximately 3 out of every 10 deaths of persons of either sex, about 33% of the total in each case. The resulting total age-adjusted death rate for both sexes combined of 144 deaths per 100,000 population was somewhat lower than that for 1991 (148 deaths per 100,000 population) and consistent with the general downward trend for heart disease since 1950. For 1992, the age-adjusted death rate from heart disease for males was almost twice the rate for females (195.1 versus 103.7).

Malignant Neoplasms (Cancer)

1992 was the thirteenth consecutive year since 1979 in which cancer, the second-ranked cause of death in the U.S., accounted for more than 400,000 total deaths for the year (274,838 male and 245,740 female). This amounted to more than 2 out of every 10 male or female deaths that occurred (about 24% of total deaths in each case). The total age-adjusted death rate from cancer decreased slightly between 1991 and 1992 (from 134.5 to 133.1), in contrast to the general upward trend that has prevailed since 1950. For 1992, the age-adjusted male death rate due to cancer was 1.5 times the rate for females (162.7 versus 111.9).

¹¹ All death rates designated as "age-adjusted" in this section have been age-adjusted according to NCHS procedures. For additional details, see Reference 2.

Cerebrovascular Diseases (Stroke)

This No. 3 killer in 1992 accounted for 56,645 male and 87,124 female deaths, for a total of 143,769 deaths for the year, or about 1 out of every 15 deaths for males and females combined (6.6% of the total). The age-adjusted death rate from stroke for both sexes combined was 26.2 deaths per 100,000 population, continuing the general downward trend observed for this cause since 1950. The age-adjusted male death rate due to stroke was almost 1.2 times the female rate (28.6 versus 24.2).

Motor Vehicle Traffic Crashes

Traffic crashes in 1992 resulted in 39,985 total male and female deaths compared with 42,621 in 1991. A general downward trend since 1988 in the total age-adjusted death rate for this cause continued through 1992, when the rate was 15.4 deaths per 100,000 population. While ranking 8th as a cause of death for males in 1992 and accounting for 27,221 or 2.4% of all male deaths, traffic crashes ranked only 9th for females, accounting for 12,764 or 1.2% of total female deaths. Thus, 2.1 times as many males as females died in traffic crashes in 1992. The age-adjusted male death rate from traffic crashes was 21.6 compared to 9.3 for females. That is, the actual risk of male death from traffic crashes was 2.3 times the female risk.

In recent years, males compared to females have accounted for 68%-70% of all deaths in traffic crashes. Since the ratio of males to females in the total population is approximately 1.0 (actually slightly less than 1, or 0.95 to be exact), more males than females die in traffic crashes because males are exposed to the risk of a motor vehicle crash in greater numbers than females. In addition, males are generally at greater personal risk than females as a result of more aggressive overall behavior, especially as young drivers, night drivers and alcohol-involved drivers at all ages.

The above ranking of traffic crashes as a leading cause of death in 1992 (8th for males and 9th for females) reflects the rank-ordering of all 63 NCSA-adopted death causes which, as indicated on page 4, are based on 914 underlying causes of death as currently classified by the ICD. To briefly review, there are two basic types of underlying causes: internal causes, or those attributable to some type of internal bodily disease or disorder which results in death (e.g., cholera, diabetes, emphysema, etc.), and external causes, or those attributable to external factors which produce a fatal injury or have a fatal effect such as crashes, poisonings and acts of violence.¹² As a result of this basic distinction between underlying causes, 56 of the 63 NCSA-adopted causes are internal causes while the remaining 7 are external causes, and traffic crashes are one of the major external causes of death in the United States compared to, say, suicide, homicide or other transport crashes.¹³ If traffic crashes are ranked only in relation to other external causes of death, then, for all ages combined in 1992, traffic crashes ranked a close second to nontransport accidents among both males and females, though accounting for different proportions of victims in each case; almost 1 out of every 4 deaths due to external factors for males, and about 1 out of every 3 such deaths for females. As indicated above, nontransport accidents were

¹² See Reference 2 for additional information regarding the medical classification of mortality data.

¹³ Crashes involving other modes of transport such as railway, aerospace or water transport conveyances.

the first-ranked external cause of death for both males and females in 1992. Refer to Table 2 on page 14 for additional data on the 5 major external causes of death in 1992.

As a major external cause, traffic crashes are the prime cause of accidental death in the United States, and this has been true for many years. Thus, for persons of all ages, traffic crashes alone in 1992 caused almost one-half of all accidental deaths that occurred, about 47% for males and somewhat less, about 44%, for females. When compared with other unintentional causes, traffic crashes accounted for 4.3 times as many male deaths and twice as many female deaths as falling, which is generally the No. 2 cause of accidental death, regardless of year. Refer to Table 3 on page 15 for additional information on leading causes of accidental death in 1992. For this comparison, nontransport accidents are disaggregated and shown as separate accident types.

**Table 1a. Deaths, Percents of Total Deaths and Death Rates for the
15 Leading Causes of Death for Persons of All Ages, by Sex
United States, 1992**

<u>Male</u>				
<u>Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Number of Deaths©</u>	<u>% of Total Deaths</u>	<u>Age-Adjusted Death Rate(d)</u>
All Causes		1,122,336	100.0	656.0
Diseases of the Heart	1	357,545	31.9	195.1
Malignant Neoplasms (Cancer)	2	274,838	24.5	162.7
Cerebrovascular Diseases (Stroke)	3	56,645	5.0	28.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	50,465	4.5	26.4
Pneumonia	5	35,127	3.1	16.5
Human Immunodeficiency Virus (HIV) Infection	6	29,325	2.6	22.3
Nontransport Accidents	7	27,467	2.4	18.9
<u>Motor Vehicle Traffic Crashes</u>	8	27,221	2.4	21.6
Suicide	9	24,457	2.2	18.4
Diabetes Mellitus	10	21,672	1.9	12.7
Homicide and Legal Intervention	11	20,115	1.8	16.7
Chronic Liver Disease and Cirrhosis	12	16,487	1.5	11.6
Other Diseases of the Nervous System and Sense Organs	13	12,716	1.1	7.2
Symptoms, Signs and Ill-defined Conditions	14	12,580	1.1	8.4
Nephritis, Nephrotic Syndrome and Nephrosis	15	10,816	1.0	5.5

Date Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of deaths in specified group.

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(d) Rate per 100,000 population in specified group.

**Table 1b. Deaths, Percents of Total Deaths and Death Rates for the
15 Leading Causes of Death for Persons of All Ages, by Sex
United States, 1992**

Female				
<u>Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Number of Deaths©</u>	<u>% of Total Deaths</u>	<u>Age-Adjusted Death Rate(d)</u>
All Causes		1,053,277	100.0	380.3
Diseases of the Heart	1	360,161	34.2	103.7
Malignant Neoplasms (Cancer)	2	245,740	23.3	111.9
Cerebrovascular Diseases (Stroke)	3	87,124	8.3	24.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	41,473	3.9	15.5
Pneumonia	5	39,586	3.8	9.8
Diabetes Mellitus	6	28,395	2.7	11.1
Other Diseases of the Nervous System and Sense Organs	7	15,869	1.5	5.3
Nontransport Accidents	8	15,499	1.5	6.6
<u>Motor Vehicle Traffic Crashes</u>	9	12,764	1.2	9.3
Nephritis, Nephrotic Syndrome and Nephrosis	10	11,346	1.1	3.6
Septicemia	11	11,140	1.1	3.6
Psychoses and Mental Retardation	12	11,137	1.1	2.2
Symptoms, Signs and Ill-defined Conditions	13	10,850	1.0	5.1
Other Digestive Diseases	14	10,516	1.0	3.7
Atherosclerosis	15	10,503	1.0	2.1

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of deaths in specified group.

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(d) Rate per 100,000 population in specified group.

**Table 1c. Deaths, Percents of Total Deaths and Death Rates for the
15 Leading Causes of Death for Persons of All Ages, by Sex
United States, 1992**

Cause of Death(a)	Both Sexes			
	Rank Order(b)	Number of Deaths©	% of Total Deaths	Age-Adjusted Death Rate(d)
All Causes		2,175,613	100.0	504.5
Diseases of the Heart	1	717,706	33.0	144.3
Malignant Neoplasms (Cancer)	2	520,578	23.9	133.1
Cerebrovascular Diseases (Stroke)	3	143,769	6.6	26.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	91,938	4.2	19.9
Pneumonia	5	74,713	3.4	12.5
Diabetes Mellitus	6	50,067	2.3	11.8
Nontransport Accidents	7	42,966	2.0	12.6
<u>Motor Vehicle Traffic Crashes</u>	8	39,985	1.8	15.4
Human Immunodeficiency Virus (HIV) Infection	9	33,566	1.5	12.6
Suicide	10	30,484	1.4	11.1
Other Diseases of the Nervous System and Sense Organs	11	28,585	1.3	6.2
Homicide and Legal Intervention	12	25,488	1.2	10.5
Chronic Liver Disease and Cirrhosis	13	25,263	1.2	8.0
Symptoms, Signs and Ill-defined Conditions	14	23,430	1.1	6.7
Nephritis, Nephrotic Syndrome and Nephrosis	15	22,162	1.0	4.3

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of deaths in specified group.

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(d) Rate per 100,000 population in specified group.

Table 2. Deaths, Percents of Total Deaths and Death Rates for the Five External Causes of Death for Persons of All Ages, by Sex

United States, 1992

<u>External Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Number of Deaths©</u>	<u>% of Total Deaths</u>	<u>Age-Adjusted Death Rate(d)</u>
<u>Male</u>	Total	104,549	100.0	79.9
Nontransport Accidents	1	27,467	26.3	18.9
<u>Motor Vehicle Traffic Crashes</u>	2	27,221	26.0	21.6
Suicide	3	24,457	23.4	18.4
Homicide and Legal Intervention	4	20,115	19.2	16.7
Other Transport Crashes	5	2,115	2.0	1.9
<u>Female</u>	Total	41,106	100.0	25.5
Nontransport Accidents	1	15,499	37.7	6.6
<u>Motor Vehicle Traffic Crashes</u>	2	12,764	31.1	9.3
Suicide	3	6,027	14.7	4.3
Homicide and Legal Intervention	4	5,373	13.1	4.2
Other Transport Crashes	5	416	1.0	0.3
<u>Both Sexes</u>	Total	145,655	100.0	52.1
Nontransport Accidents	1	42,966	29.5	12.6
<u>Motor Vehicle Traffic Crashes</u>	2	39,985	27.5	15.4
Suicide	3	30,484	20.9	11.1
Homicide and Legal Intervention	4	25,488	17.5	10.5
Other Transport Crashes	5	2,829	1.9	1.1

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of externally-caused deaths in specified group.

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(d) Rate per 100,000 population in specified group.

Table 3. Deaths, Percents of Total Deaths and Death Rates for the Five Leading Accidental Causes of Death for Persons of All Ages, by Sex United States, 1992

<u>Accidental Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Number of Deaths©</u>	<u>% of Total Deaths</u>	<u>Age-Adjusted Death Rate(d)</u>
<u>Male</u>	Total	57,862	100.0	43.1
<u>Motor Vehicle Traffic Crashes</u>	1	27,221	47.0	21.6
Falls	2	6,315	10.9	3.5
Poisoning	3	5,346	9.2	4.0
Drowning and Submersion	4	2,791	4.8	2.2
Fire and Flames	5	2,507	4.3	1.8
<u>Female</u>	Total	28,915	100.0	16.4
<u>Motor Vehicle Traffic Crashes</u>	1	12,764	44.1	9.3
Falls	2	6,331	21.9	1.6
Suffocation due to Respiratory Obstruction	3	1,737	6.0	0.7
Poisoning	4	1,736	6.0	1.2
Fire and Flames	5	1,451	5.0	0.9
<u>Both Sexes</u>	Total	86,777	100.0	29.4
<u>Motor Vehicle Traffic Crashes</u>	1	39,985	46.1	15.4
Falls	2	12,646	14.6	2.5
Poisoning	3	7,082	8.2	2.6
Suffocation due to Respiratory Obstruction	4	4,062	4.7	1.1
Fire and Flames	5	3,958	4.6	1.4

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of accidental deaths in specified group.

© Residents of the U.S. only (50 States and the District of Columbia).

(d) Rate per 100,000 population in specified group.

III. Major Leading Causes of Death at Different Ages

The breakdown of cause of death data by sex, as shown in Tables 1a and 1b, though somewhat more descriptive than the mortality data presented for both sexes combined in Table 1c, is still only partially informative in that it tells us nothing about causes of death at different ages. Table 4 presents a brief summary of the age-occurrence of death in 1992 due to 8 major causes, at the most critical ages for each cause. These 8 causes include the following 7 which were the leading or top-ranked cause of death at various ages (for males, and/or females or both sexes combined) in 1992: certain conditions originating in the perinatal period,¹⁴ nontransport accidents,¹⁵ motor vehicle traffic crashes, homicide, HIV infection, malignant neoplasms, and diseases of the heart. These 7 were the only causes of death in 1992 whereby, at any age, more persons died of one of these causes than of any other. Cerebrovascular diseases, though never the No. 1 cause of death at any age in 1992, are included in Table 4 because of their impact on older persons, making them the third-ranked cause of death for persons of all ages. Note that the rankings shown in Table 4 apply to each specific age of the indicated age interval.

Table 4 shows that, in general, major causes of death have different rankings at different ages and that, between the sexes, there are differences as well as similarities in the ranking and overall impact of these major causes at corresponding ages. For example, in regard to strict similarities between males and females for the same cause, in 1992 perinatal conditions were, as expected, the leading cause of death for both male and female infants less than 1 year of age. They accounted for 15,562 of the total of 34,628 infant deaths for the year, or almost one-half (45%) of total deaths for both males and females at this age. Virtually all deaths due to perinatal conditions (99%) occurred before the age of 1 for both sexes.

In regard to the remaining 7 major causes of death in 1992, however, the following differences as well as similarities between the sexes in their ranking and overall impact at corresponding ages are evident from Table 4.

Nontransport Accidents

Nontransport accidents were the leading cause of death for males 1-5 and 10 years of age, and responsible for 1,205 or 25% of the male deaths at these ages (Table 4a). For females, they were the leading cause for ages 1-4 and responsible for 568 or 19% of the female deaths in this age group (Table 4b). Thus, as a first-ranked cause of death in 1992, nontransport accidents claimed the lives of very young children of both sexes. However, relative to total deaths at these ages, the numbers of male and female victims were significantly different.

¹⁴ Conditions connected with birth or pre-birth which fatally affect the newborn (infant mortality).

¹⁵ Accidental poisonings, falls, drownings, suffocations, fires, etc.

Motor Vehicle Traffic Crashes

Motor vehicle traffic crashes were the No. 1 cause of death for males for every age 6-9, 11-18, and 20-22, and for females for every age 5-28 (Tables 4a and 4b). They caused 6,006 male and 4,388 female deaths in corresponding age groups, approximately 27% of the total in each, and are discussed in detail by age and sex in Section IV of this report. Attention in Section IV, however, is focused not only on those ages for which traffic crashes in 1992 were a major cause of death but also on those ages for which they were not.

Homicide

Homicide was the leading cause of male death for every age 19 and 23-27, and the No. 2 cause for all other ages 14-18, 20-22, and 29, claiming a total of 9,604 male victims for the entire age interval 14-27 and 29 (Table 4a). For females, on the other hand, homicide was not the first-ranked cause of death at any age in 1992, but second-ranked for each age 15-26 and accounting for 1,455 female victims at these ages (Table 4b). Since the two sexes cannot be compared for those ages where homicide was the No. 1 cause of death for both in 1992, a reasonable alternative is to compare those age intervals where homicide was either the first or the second-ranked cause for each sex, that is, ages 14-27 and 29 for males and 15-26 for females, as indicated above. For these two age groups, homicide caused 23% and 14%, respectively, of the male and female deaths that occurred. This indicates significant differences between the sexes in homicides for corresponding ages in 1992 where homicide was a top-ranked cause of death for both sexes.

HIV Infection

Human Immunodeficiency Virus (HIV) Infection was the No. 1 cause of male death for ages 28-41, and the No. 2 cause for age 42 (Table 4a). For females, HIV like homicide was not first-ranked for any age in 1992, but second-ranked for ages 32-34, and third or fourth-ranked for ages 26-31 and 35-41 (Table 4b). Again, since an age group comparison for HIV as the leading cause of death for both sexes in 1992 is not possible, a reasonable alternative is to compare male ages 28-42 (where HIV ranked 1-2) to female ages 26-41 (where HIV ranked 2-4). For these two age groups, HIV was responsible for 18,373 or 22% of the male deaths but only 2,702 or 8% of the female deaths, respectively, that occurred. This indicates significant differences between the sexes in deaths also from HIV for those ages in 1992 where it was a top-ranked cause of death for both.

Malignant Neoplasms

For males in 1992, cancer was either the first or second-ranked cause of death for every age 43-96, causing 264,326 or 27% of all male deaths for the age interval (Table 4a). For females, cancer was either first or second-ranked for all ages 6-10, 12-14, and 27-87, and responsible for 225,234 or 28% of all female deaths at these ages (Table 4b). Thus, for those male and female ages in 1992 where cancer was either the first or second-ranked cause, the proportions of total age-group deaths due to cancer were essentially the same.

Diseases of the Heart

For both sexes in 1992, heart disease was either the leading or second leading cause of death after age 35, and responsible for the 353,427 male and 357,852 female deaths that occurred (Tables 4a and 4b). For both sexes, however, the proportions of total deaths due to heart disease after age 35 were essentially the same, about 35% in each case, and 99% of all heart-related deaths occurred after this age.

Cerebrovascular Diseases

Once again, as in prior years, stroke was not the leading cause of death at any age for either sex in 1992. For males, stroke was either the third or fourth-ranked cause of death for all ages over 52 (Table 4a). For females, there was a somewhat similar age-wise ranking for stroke with minor differences: third or fourth-ranked for ages 42-87 and 100+, and second-ranked for all ages 88-99 (Table 4b). For males, 6% of all deaths after age 52 were due to stroke and 93% of stroke-related deaths occurred in this age group. For females, corresponding percentages after age 41 were 9% of total deaths and 98% of all stroke-related deaths.

For some causes of death, the ages for which the rankings are highest correspond reasonably well with the typical ages at death (average, median, etc.) for that cause. For example, from Table 4c we note that, for both sexes combined in 1992, heart disease was the leading cause of death for every age above 70 years. The average age of those who died of heart disease was 76.8 years and the median age at death was 78.5 years. Also, for this same group in 1992, traffic crashes were the 1st, 2nd or 3rd leading cause of death for every age 2-35; the average age at death in a traffic crash was 39.3 years and the median age at death was 33.5 years. For other causes of death, however, there may be little or no correspondence between the highest ranking by age as a cause of death and the typical ages at death. Nontransport accidents are a case in point. Though a high-ranked cause of death at very young ages, considerably more deaths from these crashes occur among older age groups,¹⁶ ages at which the cause-of-death ranking for nontransport accidents, relative to other causes, is much less. Thus, for nontransport accidents, the typical ages at death (average of 56.2 years and median of 59.5 for both sexes combined) do not correspond with the high-order rankings by age. These rankings and typical ages at death for these 8 major causes have been fairly constant in recent years, and are indicative of the following:

1. With the single exception of perinatal conditions which generally affect only infants under 1 year of age, motor vehicle traffic crashes are the only cause of death responsible for so many deaths among younger age groups. Except as noted, no other cause of death is even a close second.
2. In general, younger persons succumb more to external rather than to internal causes of death, with the reverse being true for older persons. Space does not permit a detailed comparison of deaths from external versus internal causes at different ages, but there are two notable exceptions to this generalization, both of which have already been noted: (1) Nontransport accidents, a major external

¹⁶ Both in absolute numbers and relative to total populations involved.

cause of death, result in many more deaths among older persons, and (2) Perinatal conditions, a major internal cause of death, generally affect only infants less than 1 year of age.

Figures 1a, 1b and 1c, which follow Table 4, are a comparison by sex of the ranking of traffic crashes as a cause of death with the rankings for heart disease, cancer, HIV infection, homicide, and nontransport accidents at every age in 1992. For each age, the ranking for each cause is expressed as the percent of total deaths from all causes for that age. Figures 2a, 2b and 2c show the population death rates for these 6 major causes, by sex, at each age in 1992. Figure 2 clearly indicates that in 1992 the risk of death from traffic crashes, relative to that from other causes, decreased to a significantly lower level beginning around age 29 for both males and females.

For additional information regarding major causes of death at different age levels, refer to Table 3 of the Appendix to this report which presents a tabulation of the first 6-9 leading causes of death in 1992, by 5-year age intervals up to age 84, by sex. Motor vehicle traffic crashes are included with each age grouping, even if they were not a major cause of death for certain ages, to show their ranking relative to the major causes at different ages.

Table 4a. Deaths, Percents of Total Deaths, Death Rates and Typical Ages at Death for 8 Major Causes of Death, by Age Group and Rank Order for Specified Ages United States, 1992

Male

<u>Major Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Age Group</u>	<u>Number of Deaths©</u>	<u>% of Total for Age Group</u>	<u>% of Total for Cause</u>	<u>Death Rate(d)</u>	<u>Avg. Age at Death</u>	<u>Median Age at Death</u>
Perinatal Conditions	1	Under 1	8,727	44.7	99.0	429.1	0.6	0.5
Nontransport Accidents	1	1-5,10	1,205	25.5	4.4	10.2	49.8	46.5
M.V. Traffic Crashes	1	6-9,11-18,20-22	6,006	27.9	22.1	21.7	37.9	32.5
Homicide	1	19,23-27	4,270	22.7	21.2	37.2	31.6	28.5
	2	14-18,20-22,29	5,334	23.8	26.5	31.5		
HIV Infection	1	28-41	17,187	22.8	58.6	58.0	39.8	38.5
	2	42	1,186	18.0	4.0	64.7		
Diseases of the Heart	1	42-56,58,69+	276,538	35.9	77.3	885.7	73.0	74.5
	2	36-41,57,59-68	76,869	31.0	21.5	339.9		
Malignant Neoplasms	1	57,59-68	74,139	35.1	27.0	701.5	69.7	71.5
	2	43-56,58,69-96	190,187	25.2	69.2	647.8		
Cerebrovascular Diseases	3-4	53 & above	52,625	5.8	92.9	208.9	75.5	78.5

Data Sources: National Center for Health Statistics and Bureau of the Census.

- (a) Ninth Revision, International Classification of Diseases, 1975.
- (b) Rank based on number of deaths for each age of specified age-sex group.
- © Residents of the U.S. only (50 States and the District of Columbia).
- (d) Crude rate per 100,000 population in specified age-sex group.

**Table 4b. Deaths, Percents of Total Deaths, Death Rates and Typical Ages at Death for
8 Major Causes of Death, by Age Group and Rank Order for Specified Ages
United States, 1992**

Female

<u>Major Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Age Group</u>	<u>Number of Deaths©</u>	<u>% of Total for Age Group</u>	<u>% of Total for Cause</u>	<u>Death Rate(d)</u>	<u>Avg. Age at Death</u>	<u>Median Age at Death</u>
Perinatal Conditions	1	Under 1	6,835	45.3	98.9	351.1	0.6	0.5
Nontransport Accidents	1	1-4	568	19.2	3.7	7.5	66.2	77.5
M.V. Traffic Crashes	1	5-28	4,388	27.0	34.4	10.1	42.2	37.5
Homicide	2	15-26	1,455	13.8	27.1	6.8	34.6	31.5
HIV Infection	2	32-34	610	10.1	14.4	9.1	37.4	36.5
	3-4	26-31,35-41	2,092	7.8	49.3	7.7		
Malignant Neoplasms	1	29-72	128,796	38.6	52.4	191.9	70.3	71.5
	2	6-10,12-14, 27-28,73-87	96,438	20.8	39.2	350.2		
Diseases of the Heart	1	73 & above	279,220	40.8	77.5	2,617.6	80.5	82.5
	2	36-72	78,632	24.5	21.8	152.8		
Cerebrovascular Diseases	3-4	42-87,100+	60,675	7.8	69.6	125.0	80.9	83.5
	2	88-99	25,139	11.7	28.9	1,904.5		

Data Sources: National Center for Health Statistics and Bureau of the Census.

- (a) Ninth Revision, International Classification of Diseases, 1975.
- (b) Rank based on number of deaths for each age of specified age-sex group.
- © Residents of the U.S. only (50 States and the District of Columbia).
- (d) Crude rate per 100,000 population in specified age-sex group.

**Table 4c. Deaths, Percents of Total Deaths, Death Rates and Typical Ages at Death for
8 Major Causes of Death, by Age Group and Rank Order for Specified Ages
United States, 1992**

Both Sexes

<u>Major Cause of Death(a)</u>	<u>Rank Order(b)</u>	<u>Age Group</u>	<u>Number of Deaths©</u>	<u>% of Total for Age Group</u>	<u>% of Total for Cause</u>	<u>Death Rate(d)</u>	<u>Avg. Age at Death</u>	<u>Median Age at Death</u>
Perinatal Conditions	1	Under 1	15,562	44.9	98.9	390.9	0.6	0.5
Nontransport Accidents	1	1-4	1,569	23.2	3.7	10.1	56.2	59.5
M.V. Traffic Crashes	1	5-27	14,494	25.8	36.2	17.2	39.3	33.5
Homicide	2	14-27,29	11,424	20.8	44.8	20.5	32.3	29.5
	3	28,30-31	2,161	12.1	8.5	16.8		
HIV Infection	1	28-38	15,374	19.7	45.8	32.3	39.5	38.5
	2	39-40	2,981	16.4	8.9	36.3		
Malignant Neoplasms	1	39-70	238,465	34.8	45.8	286.5	70.0	71.5
	2	33-38,71-90	259,080	22.1	49.8	572.3		
Diseases of the Heart	1	71 & above	512,071	39.0	71.3	2,512.5	76.8	78.5
	2	41-70	194,221	29.1	27.1	258.9		
Cerebrovascular Diseases	3-4	49-90,100+	119,096	6.9	82.8	176.3	78.8	81.5
	2	91-99	19,166	10.8	13.3	2,273.5		

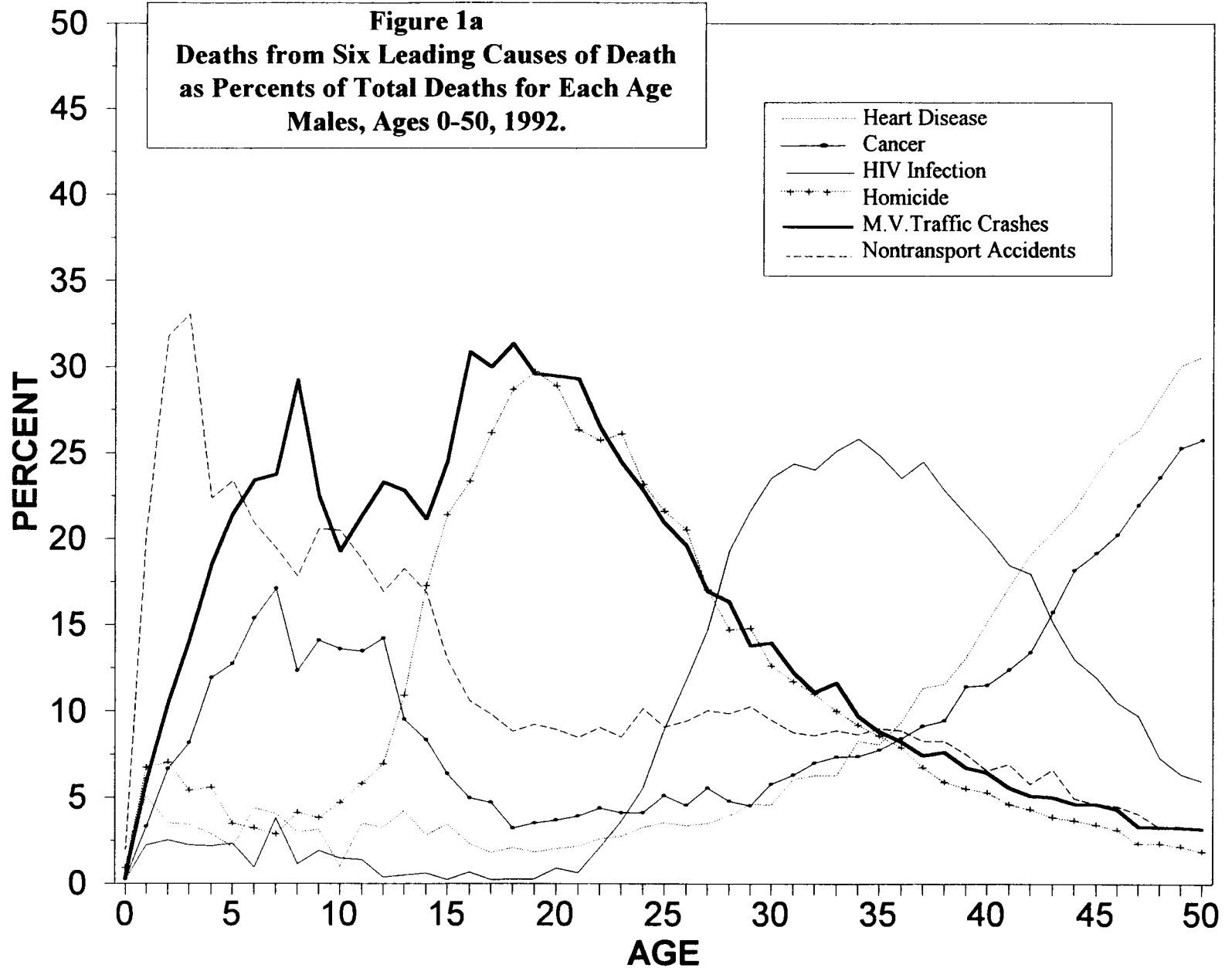
Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of deaths for each age of specified age-sex group.

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(d) Crude rate per 100,000 population in specified age-sex group.



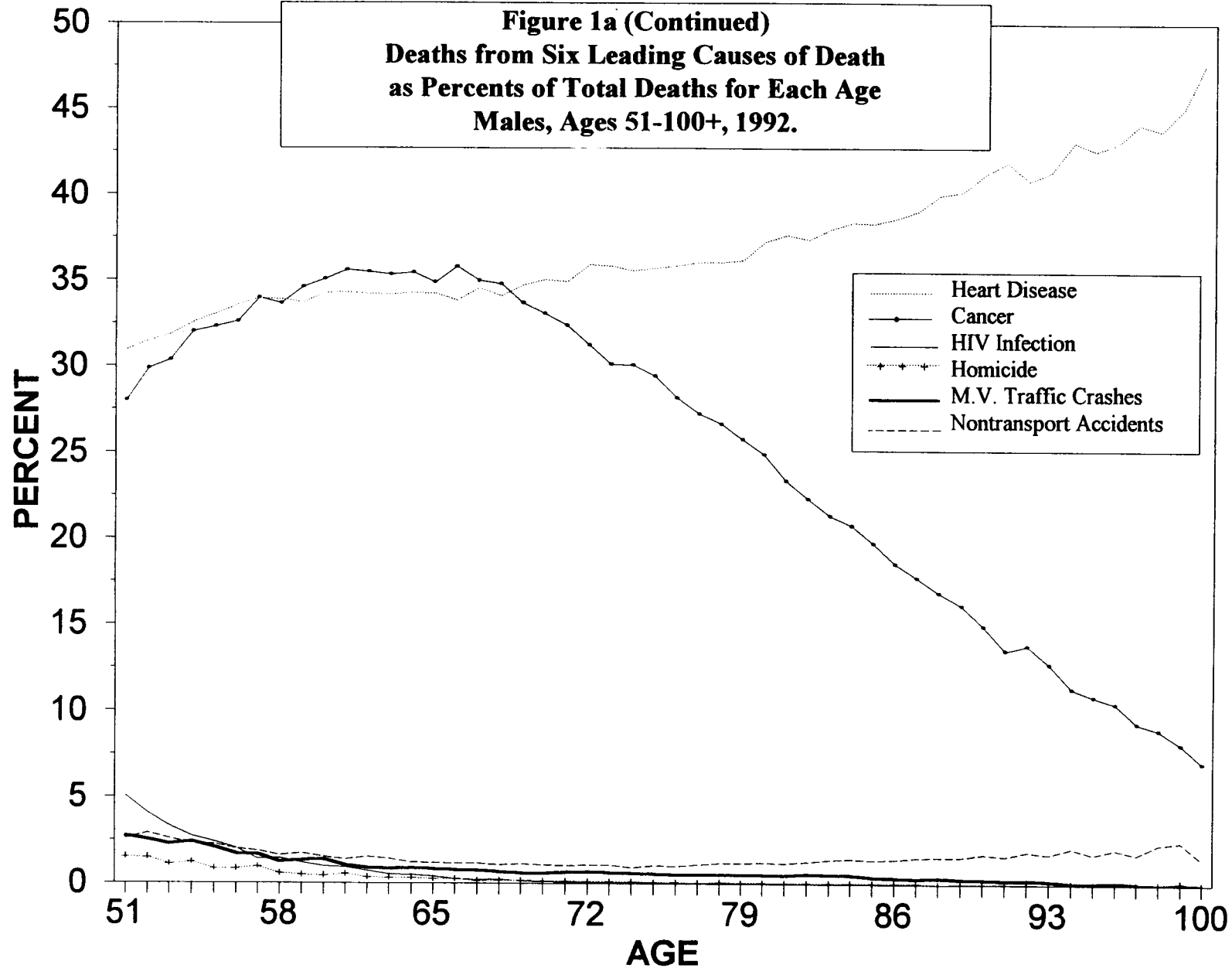


Figure 1b
Deaths from Six Leading Causes of Death
as Percents of Total Deaths for Each Age
Females, Ages 0-50, 1992.

- Heart Disease
- Cancer
- HIV Infection
- +—+ Homicide
- M.V. Traffic Crashes
- - - Nontransport Accidents

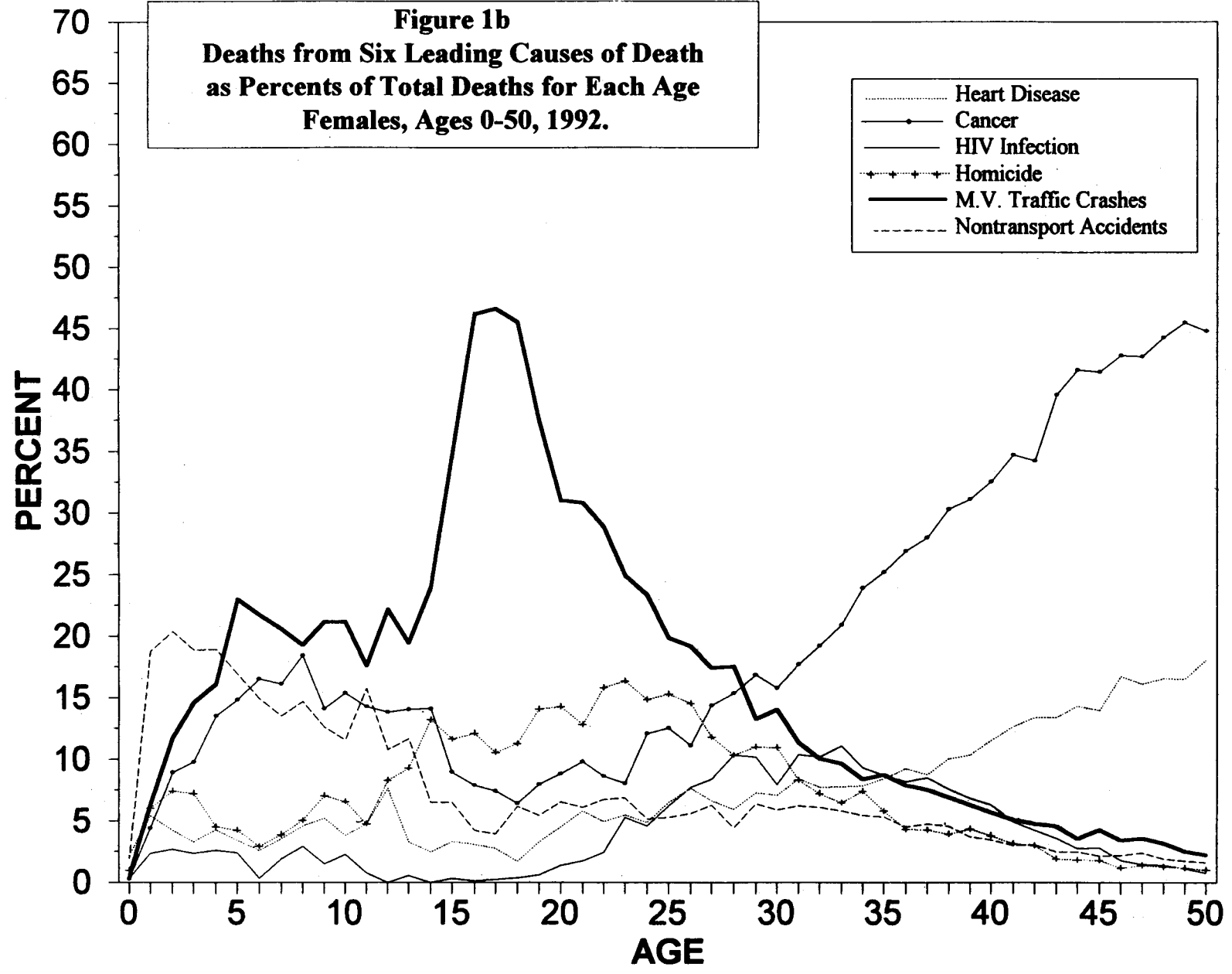
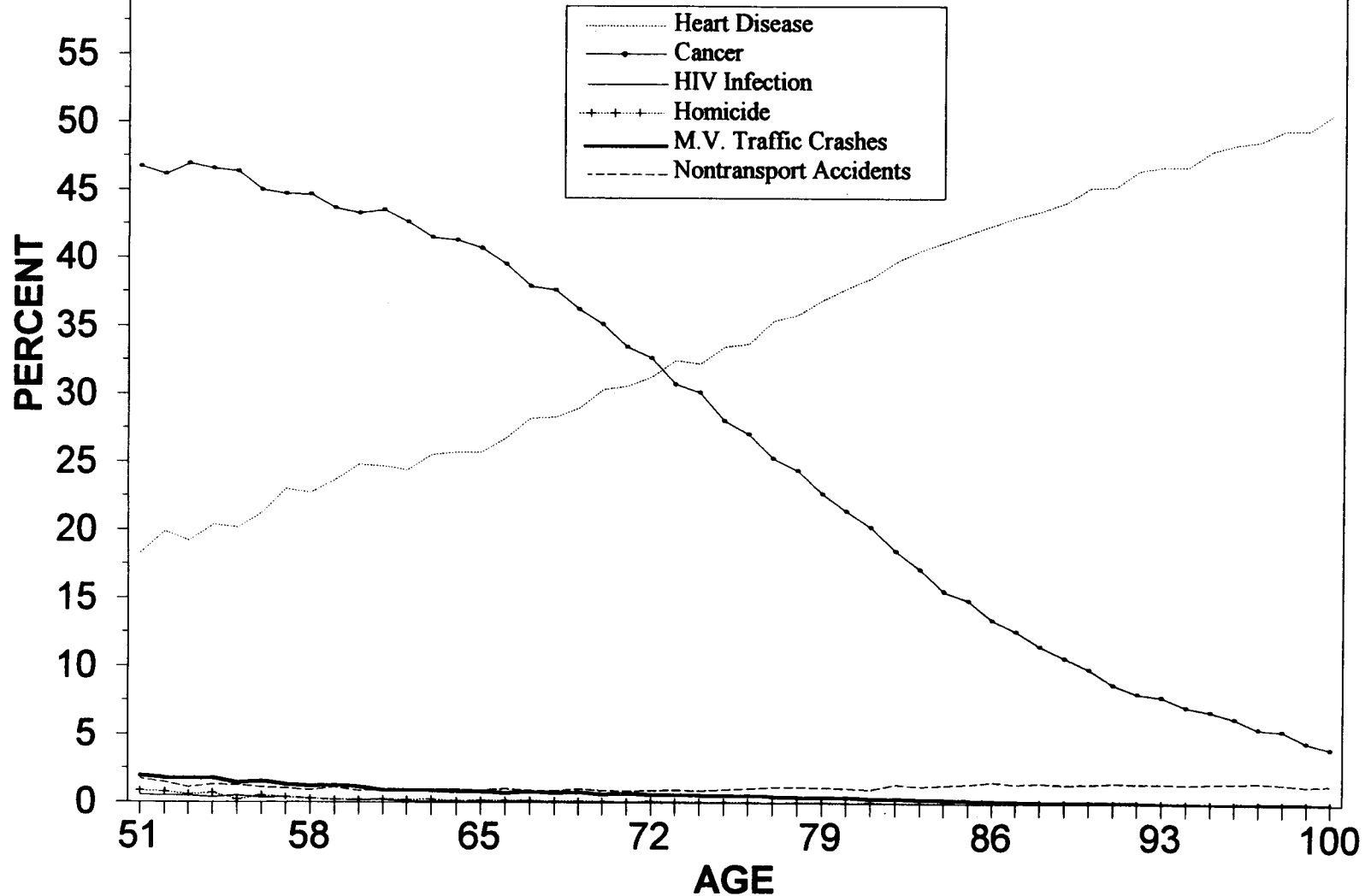


Figure 1b (Continued)
Deaths from Six Leading Causes of Death
as Percents of Total Deaths for Each Age
Females, Ages 51-100+, 1992.



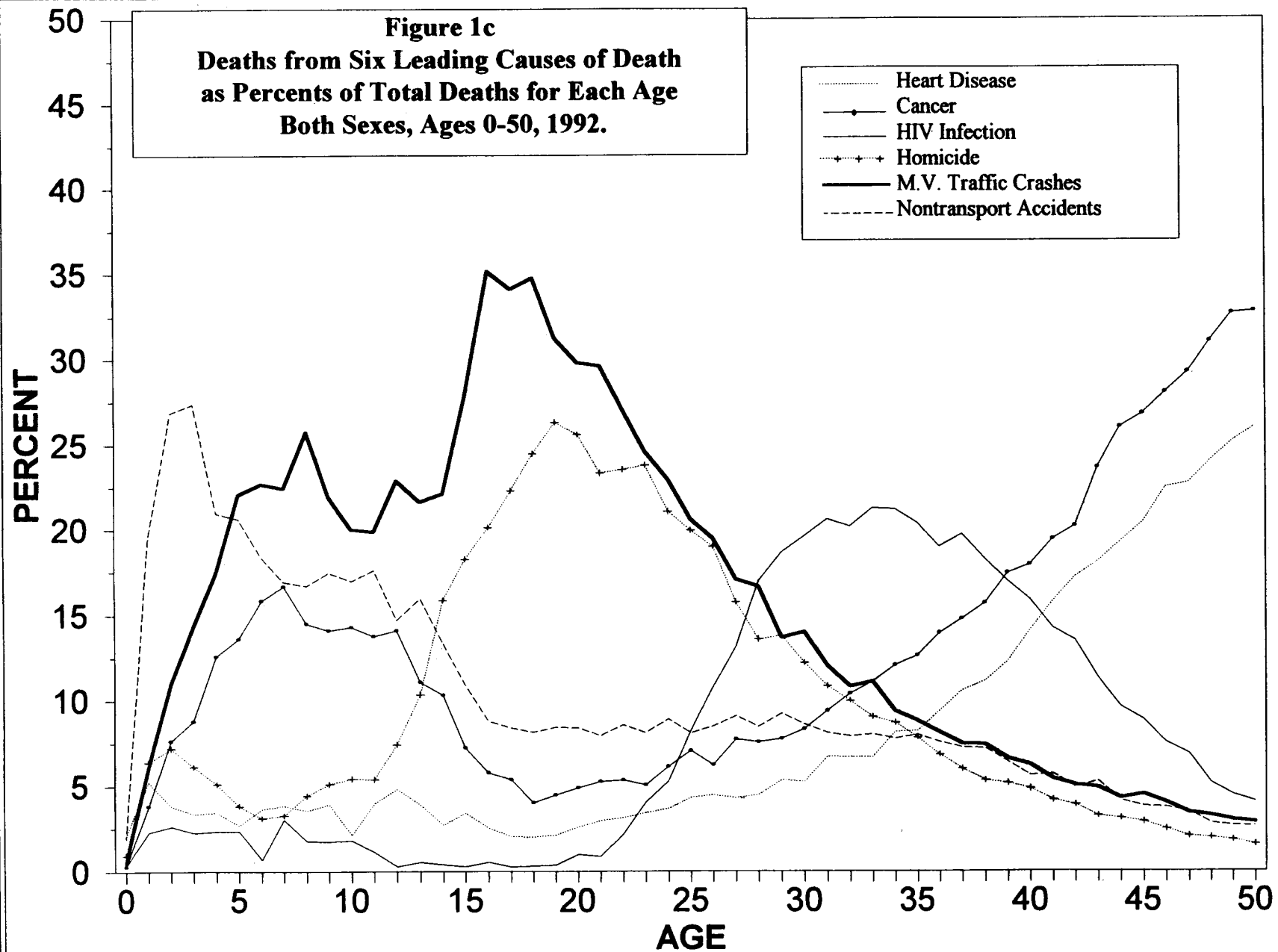


Figure 1c (Continued)
Deaths from Six Leading Causes of Death
as Percents of Total Deaths for Each Age
Both Sexes, Ages 51-100+, 1992.

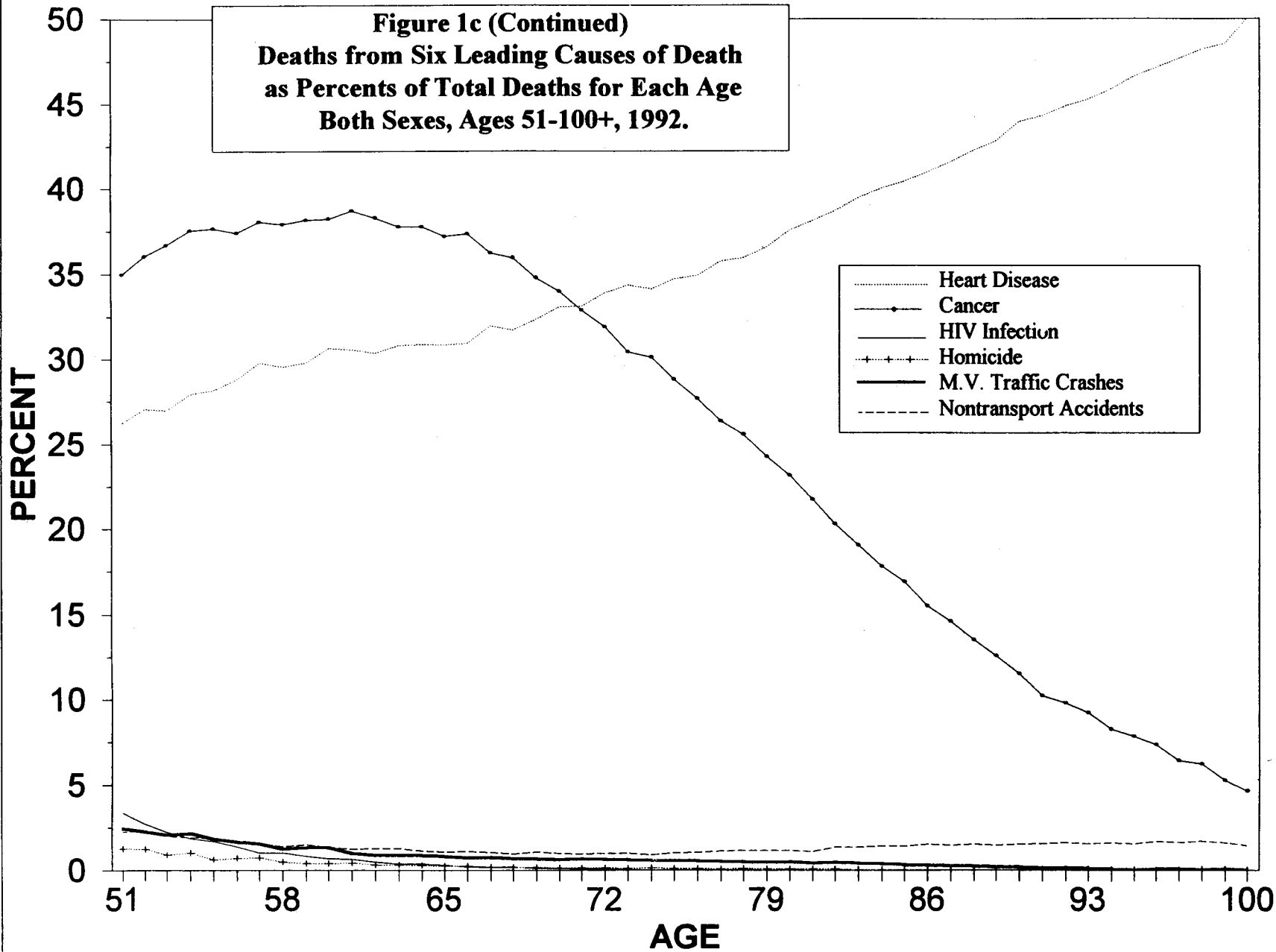


Figure 2a
Population Death Rates by Age for Six Leading Causes of Death
Males, 1992.

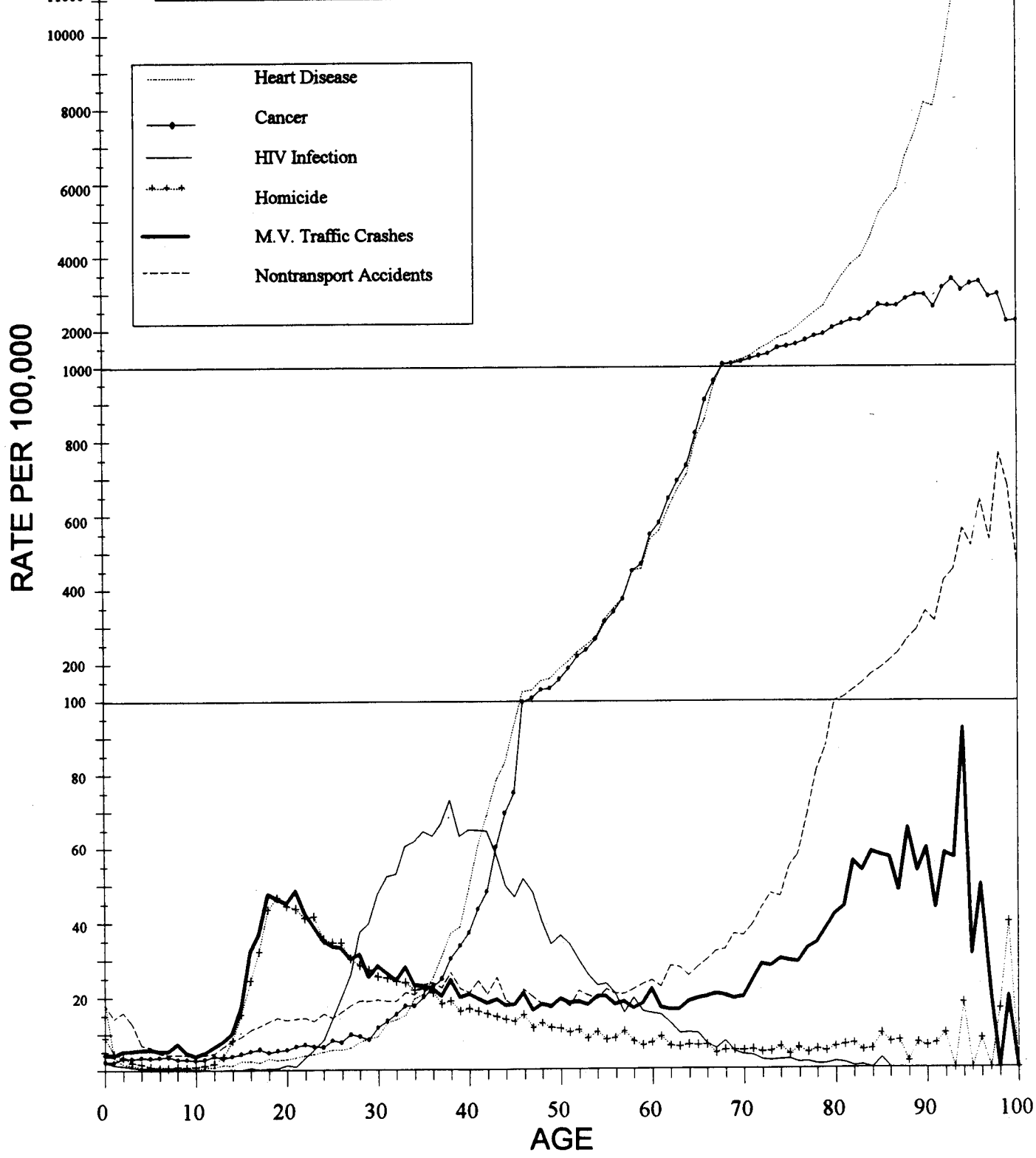


Figure 2b

Population Death Rates by Age for Six Leading Causes of Death
Females, 1992.

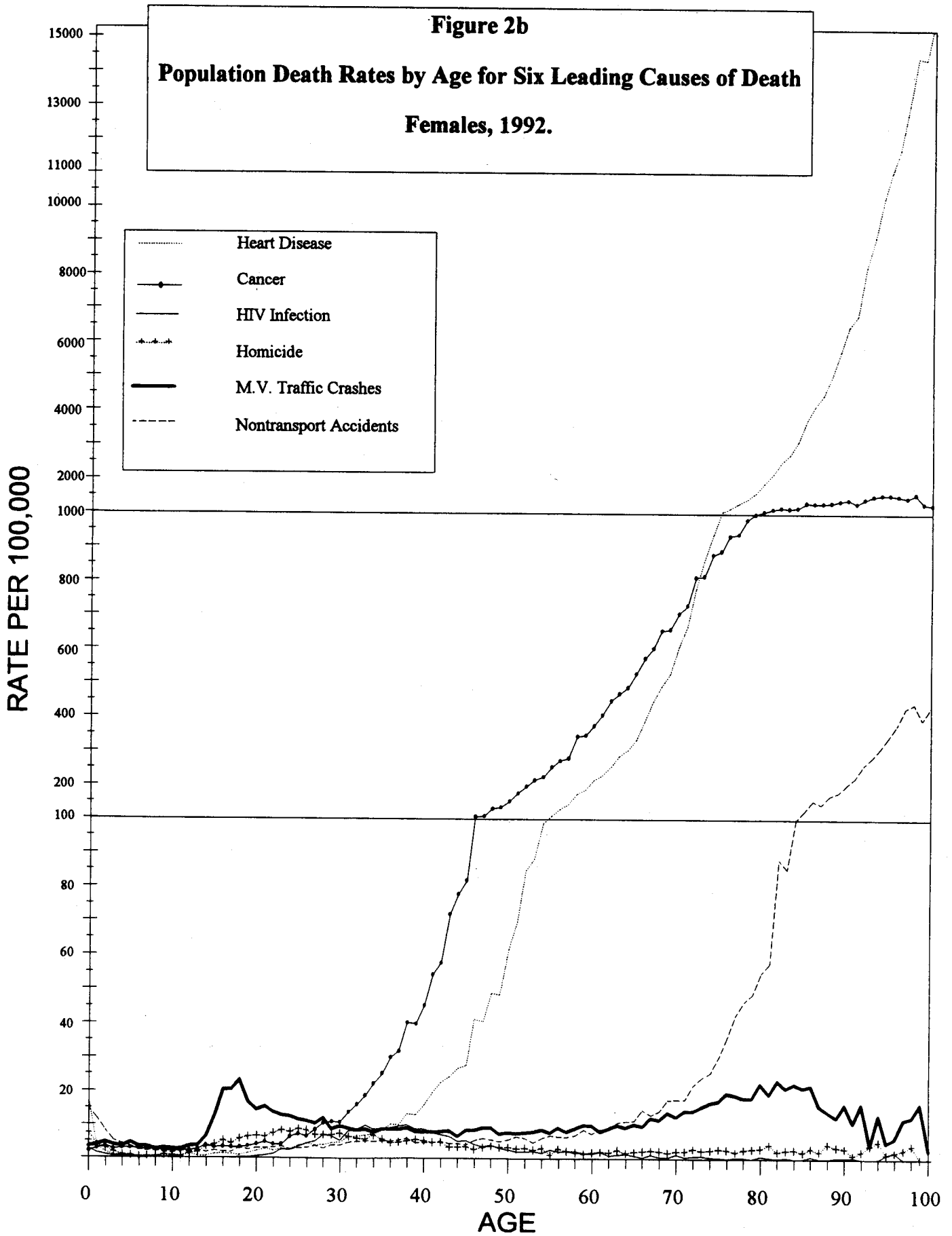
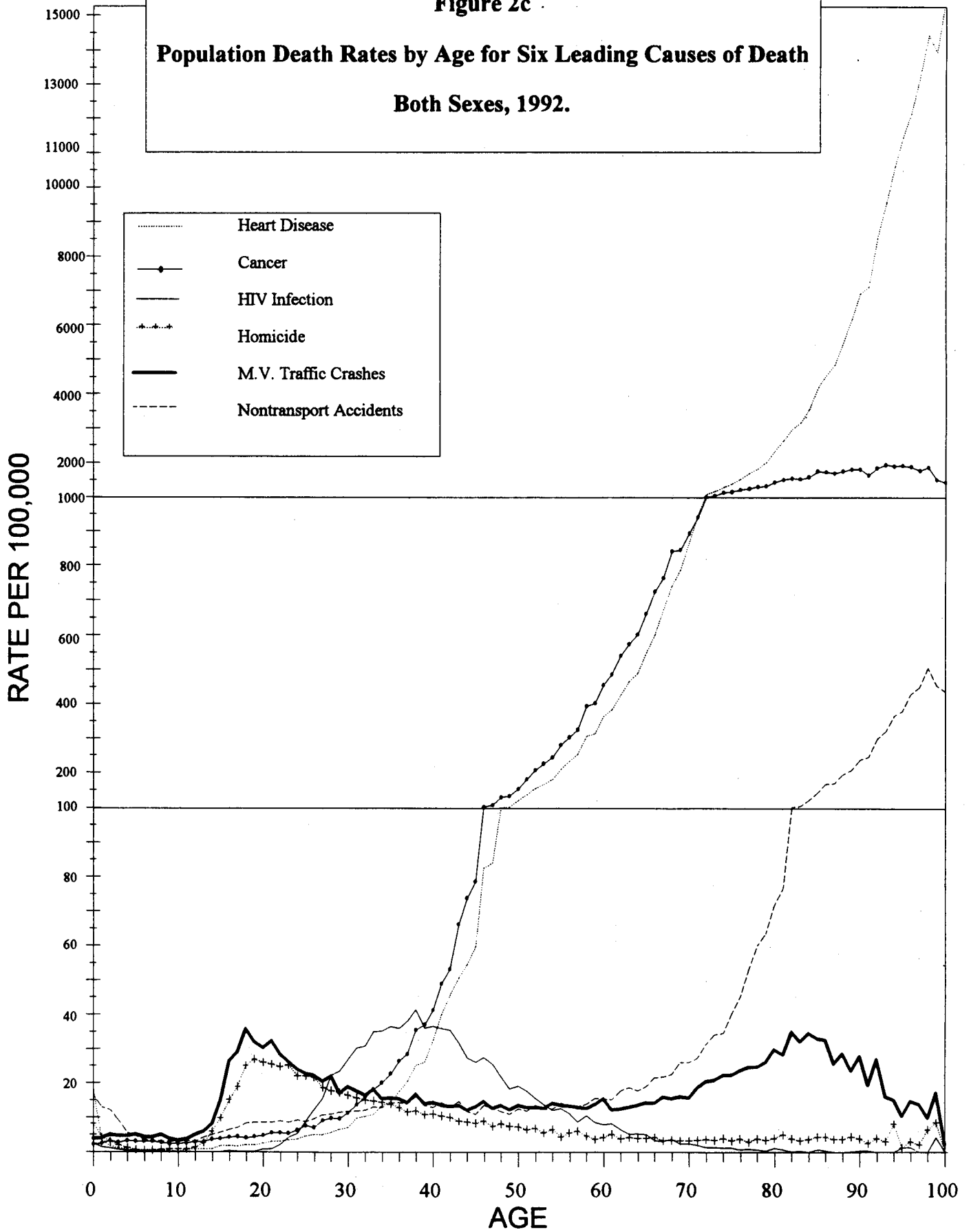


Figure 2c

**Population Death Rates by Age for Six Leading Causes of Death
Both Sexes, 1992.**



IV. Traffic Crashes as a Major Cause of Death at Different Ages

A. Traffic Crashes a Major Cause of Death

1. Males

Traffic crashes in 1992 were a major leading cause¹⁷ of male death for every age 1-41. For these ages, they accounted for 17,930 male victims or almost 66% of all male traffic deaths that occurred. The associated death rate was 22.2 traffic deaths for every 100,000 males aged 1-41 in the population.

They were the No. 1 cause of male death for each age 6-9, 11-18, and 20-22. For these ages, traffic crashes were responsible for 6,006 or 28% of the male death total, and 12% more victims than the second leading cause (nontransport accidents for ages 6-9 and 11-13, and homicide for ages 14-18 and 20-22; see Table 5a). The male risk for these ages was 21.7 traffic deaths for every 100,000 males in the population (Table 4a). This death rate was slightly less than the average risk of death from traffic crashes for males of all ages (21.7 versus 21.9). Only 22% of all male traffic deaths occurred in this age group.

For every other age in the interval 1-41 where traffic crashes were not the No. 1 cause of male death, they nonetheless were a major cause for males with the following rankings: ranks 2-4 for ages 1-5, 10, 19, and 23-34; and ranks 4-6 for ages 35-41 (Table 5a). For these ages, the male risk of traffic death was 22.5 and 11,924 additional males died in these crashes. This was almost 44% of all male traffic deaths for the year.

The incidence of male death from traffic crashes was greatest for ages 18-22, with a total of 4,365 victims that ranged from a low of 809 for age 18 to a high of 989 for age 21, for an average of approximately 870 deaths at each age. The male risk of traffic death for this age group was 46.2. This was 2.1 times the average risk of 21.9 for males of all ages. The highest male risk was 48.7 for age 21 and the lowest was 42.6 for age 22. For these ages (18-22), traffic crashes accounted for 29% of male deaths from all causes, and 5% more male deaths than homicide (the No. 1 male cause for age 19, and the No. 2 cause for ages 18 and 20-22). Sixteen percent of total male deaths from traffic crashes occurred in this age group. These data for male ages 18-22 are not shown per se in any of the tables of this report.

For males aged 19-37 in 1992, there was a very high correlation between traffic crash deaths and homicides; for most ages of this interval, the death counts associated with each cause were generally in very close agreement (Figure 1a). The nine ages 19-27 are especially interesting. Homicide was the leading cause of male death for the six ages 19 and 23-27 and the No. 2 cause for the remaining three ages 20-22. For traffic crashes, it was just the reverse; the No. 2 cause of male death for ages 19 and 23-27 and the No. 1 cause for ages 20-22. And for these nine ages 19-27, which included four of the

¹⁷ When not first-ranked, the importance of traffic crashes as a major leading cause of death relative to other causes has been determined by evaluation of raw death counts or scores initially expressed as "standard scores." This is a statistical scoring procedure widely used in educational and psychological testing (see Reference 4).

five ages of highest incidence of male traffic deaths in 1992 (ages 18-22, see above), traffic crashes caused 0.35% or only marginally more male deaths than homicide (6,857 vs. 6,833). For the remaining ten ages 28-37 of this age interval, while homicide ranked 2-7 and caused 5,212 male deaths, traffic crashes ranked 2-6 and accounted for 5,514 male deaths or 5.8% more than homicide. For the entire age interval 19-37, there were 12,371 male traffic deaths, which was only 326 or 2.7% more than the 12,045 male homicides that occurred.

2. Females

In 1992, traffic crashes were a major leading cause of female death for every age 1-39. For this entire female age group, they were responsible for 6,792 victims or 53% of all female traffic deaths that occurred. The female risk for the age group was 9.1 traffic deaths per 100,000 females aged 1-39 in the population.

Traffic crashes were the leading cause of female death for every age 5-28, claiming 4,388 victims or 27% of the female death total at these ages, and 1.9 times as many deaths as the second leading cause (nontransport accidents for ages 5 and 11; cancer for ages 6-10, 12-14, and 27-28; and homicide for ages 15-26; see Table 5b). The traffic crash death rate was 10.1 deaths for every 100,000 females aged 5-28 in the population (Table 4b). This risk was only slightly greater than the average of 9.8 traffic deaths for females of all ages. Thirty-four percent of all females killed in traffic crashes were included in this age group.

Traffic crashes ranked 2-3 and 2-4 as a leading cause of female death for ages 1-4 and 29-39, respectively (Table 5b). They were a major cause at each of these ages, accounting for 2,404 more female victims or about 19% of the female traffic death total for the year. The female risk of traffic death for these ages was 7.6 deaths per 100,000 females in the population.

Ages 16-19 and 21 had the highest incidence of female traffic deaths, 1,641 for all five ages combined. This ranged from a low of 296 at age 19 to a high of 377 at age 18, for an average of approximately 330 traffic deaths for each age. The corresponding traffic crash death risk for females averaged 19.1 for all five ages, or about 1.9 times the average risk (19.1 vs. 9.8). Age 19 also had the lowest risk, 16.9, while age 18 also had the highest risk, 23.3. For this age group, traffic crashes accounted for 3.3 times as many female deaths as homicide (the No. 2 cause), 41% of the female deaths, and 13% of total female deaths from traffic crashes. These age-specific data for females are not shown per se in any of the tables of this report.

For females in 1992, traffic crash deaths were relatively uncorrelated with homicides at most ages (Figure 1b), as opposed to the male experience. Homicide was the second-ranked cause of female death for every age 15-26, accounting for 1,455 deaths. For this same age interval, however, traffic crashes as the No. 1 cause accounted for 3,274 female deaths or nearly 2.3 times as many (Table 5b).

3. Both Sexes Combined

For both sexes combined in 1992 and similar to males, traffic crashes were a major leading cause of death for every age 1-41. For this age group, they not only claimed a total of 25,033 victims, with an overall risk of 15.7 deaths per 100,00 persons aged 1-41 in the population, but also accounted for nearly 63% of all traffic deaths that occurred.

For both sexes combined, traffic crashes were the leading cause of death for every age 5-27 and claimed 14,494 lives for the age group. This was 26% of all deaths occurring at these ages and 36% of total traffic deaths for the year (Table 4c). The risk of traffic death for this age group was 17.2 deaths per 100,000 population, which was almost 10% greater than the average risk of traffic death for persons of all ages (17.2 versus 15.7). Second-ranked causes for ages 5-27 were nontransport accidents from 5-13 years, and homicide from 14-27 years (Table 5c).

For both sexes combined, traffic crashes ranked 2-4 as a leading cause of death for ages 1-4, and ranked 2-6 as a leading cause for ages 28-41 (Table 5c). They were a major cause at each of these ages and responsible for 10,539 or 26% of all traffic deaths that occurred. The risk of traffic death for these ages was 14.0 deaths per 100,000 persons in the population.

Ages 18-22 had the highest incidence of traffic death (5,868 victims), for an average of approximately 1,170 deaths at each age. This ranged from a low of 1,101 at age 22 to a high of 1,288 at age 21. No other age outside of this age group exceeded 1,100 traffic deaths for the year; age 17 had the highest count with 999. The traffic crash death rate for these five ages averaged 31.7, or about twice the average risk (15.7), with a high of 35.8 at age 18 and a low of 28.5 at age 22. For this age group, traffic crashes claimed 23% more victims than homicide (the No. 2 cause), 30% of all deaths and 15% of the traffic death total for the year. Again, these age-specific data for both sexes combined do not appear in any of the tables of this report.

For both sexes combined in 1992, and reflecting primarily the male experience, traffic crashes and homicide were fairly highly correlated in age-related trend and death counts for ages 23-36. This correlation is clearly reflected in Figure 1c. For this entire age interval, however, there were 9.8% more traffic deaths than homicides; 11,290 compared with 10,285.

B. Traffic Crashes Not a Major Cause of Death

Infants Less Than 1 Year of Age

For this age group, traffic crashes ranked 16th as a cause of death for both sexes combined in 1992 (16th for males and 14th for females) and were responsible for only 156 deaths, 90 male and 66 female, or 0.5% of all infant deaths at this age (Tables 5a and 5b). They were not a major cause of death of infants under 1 year of age in 1992. This is generally true for any given year.

As expected, conditions connected with birth or pre-birth which have a later fatal effect were by far the leading cause of death. These perinatal conditions accounted for 15,562 out of a total of 34,628 infant deaths for the year, or slightly less than one-half of all male and female deaths at this age (45% in each case - see Tables 4a and 4b), and caused an average of 383 infant deaths (419 male and 345 female) for

every 100,000 live births occurring during the year.¹⁸ Virtually all deaths due to perinatal conditions (98.9%) occurred before the age of 1.

Males Aged 42 and Above

Traffic crashes were not a major cause of death for males at any age above 41 in 1992. By age 42, they ranked a distant sixth to heart disease, the leading male cause at this age that claimed 3.7 times as many lives. In general, traffic crashes ranked 6-11 as a cause of male death for ages 42-58; they ranked 10-16 for ages 59-68 and 16-49 for all male ages above 68 (Table 5a). Even though 9,170 male traffic deaths, or 34% of the total, occurred after age 41, this was less than 1% of all male deaths at these ages. As previously indicated, either heart disease or cancer was the top-ranked cause of male death for all ages 42 and above.

Females Aged 40 and Above

Traffic crashes did not rank as a major cause of female death at any age above 39 in 1992. By age 40, they ranked a distant fourth to cancer, the leading female cause at this age that claimed 5.7 times as many lives. In general, traffic crashes ranked 3-6 as a female cause for ages 40-49; they ranked 7-18 for ages 50-72 and 17-52 for all female ages over 72 (Table 5b). Even though 5,905 female traffic deaths, or 46% of the total, occurred after age 39, this was only 0.6% of all female deaths for the age group. As previously indicated, cancer was the first-ranked cause of female death for ages 40-72, followed by heart disease for all ages above 72.

Both Sexes Combined: Ages 42 and Above

For both sexes combined in 1992, traffic crashes were not a major cause of death at any age above 41. Cancer, the leading cause at age 40, claimed only 2.9 times as many victims as traffic crashes, but by age 42 had caused 4 times as many deaths. In general, for both sexes combined in 1992, traffic crashes ranked 4-9 as a cause of death for ages 42-56, ranked 9-16 for ages 57-70 and 15-55 for all ages above 70 (Table 5c). Even though 14,764 traffic deaths, or 37% of the total for all ages, occurred above the age of 41, this was less than 1% of all deaths for this age group. The leading causes of death for these ages were: cancer for ages 42-70 and heart disease for all ages above 70.

C. Comparison of Traffic Crashes as a Cause of Death for Males and Females of the Same Age at Different Age Levels

A comparison of traffic deaths and death rates for males and females of all ages in 1992 has been presented in Section II of this report. A generally similar comparison is presented below for different age levels, and it seems appropriate to make this comparison for the exact same ages in 1992 where, for both sexes, traffic crashes were a major or a minor cause of death. As shown above, for ages 1-39

¹⁸ Because deaths from perinatal conditions occur mainly among infants under 1 year of age (98.9% occurrence in 1992), mortality from this cause is usually measured by number of deaths per 100,000 live births.

traffic crashes were a major cause for both sexes and, for ages 42 and over, a minor cause. This excludes ages 40 and 41 from the following analysis. In addition, since the effect of traffic crashes on infants less than 1 year of age is essentially the same and relatively minor for both males and females, regardless of year, this age group is also excluded.

Ages 1-39

As indicated in part A preceding, traffic crashes in 1992 were a major cause of male and female death for each age 1-39, accounting for 17,157 and 6,792 deaths, respectively, in this age group. This represents about 16% of all deaths for each sex at these ages, and 63% and 53%, respectively, of all male and female traffic deaths that occurred. The corresponding male and female traffic crash death rates were 22.3 and 9.1, respectively. Therefore, for ages 1-39 in 1992, 2.5 times as many males as females were killed in traffic crashes and, in view of the generally similar age composition¹⁹ of the male and female populations at these ages, the male risk of traffic death was also 2.5 times the female risk (22.3 versus 9.1).

Ages 42 and Above

As indicated in part B preceding, traffic crashes were a minor cause of death for both sexes aged 42 and above in 1992. For these ages, they caused only 9,170 or 0.9% of all male and 5,594 or 0.6% of all female deaths that occurred. Corresponding male and female traffic crash death rates were 21.9 and 11.2, respectively. Therefore, for ages 42 and above, relatively few persons died as a result of traffic crashes compared to the number dying from major causes such as heart disease, cancer and stroke. Also, only 64% more males than females died in traffic crashes. Nonetheless, the traffic death tolls for these ages represent 34% and 44%, respectively, of all male and female traffic deaths that occurred, and the male risk of traffic death was still almost twice the female risk.

Comparing the overall results of fatal traffic crashes in 1992 for males and females in these two age groups (1-39, and 42 and above), the following should be noted:

1. There were significantly fewer traffic deaths after age 41 for both sexes, but the decrease was greater for males, 47% compared to only 18% for females. Thus, the ratio of male to female traffic deaths declined by 35% after age 41, from 2.5 for ages 1-39 to 1.6 for the older age group.
2. While the male risk of traffic death decreased only slightly (not quite 2%), from 22.3 for ages 1-39 to 21.9 after age 41, the female risk actually increased by 23% (from 9.1 to 11.2).
3. The male risk of traffic death relative to the female risk declined only 20%, from 2.5 for ages 1-39 to 2.0 after age 41, and this was mostly due to the significant increase in the female risk after age 41.

In the U.S. in recent years, age 29, 30 or 31 has been the pivotal age for differences in the composition of the male and female populations. Prior to this age, there are somewhat fewer females than males, though the ratio is rarely less than 0.95 to one. Women, however, tend to live longer than men (refer to

¹⁹ Population size and proportion of total population for each specific age or subgroup of the age interval.

discussion of current life expectancies - top of page 8). So, after this pivotal age, the female population begins to slowly outstrip that of males until, by age 91-93, the ratio of females to males in the population generally exceeds three to one.

In view of these current population differences between males and females, it is entirely reasonable to ask if such differences could have contributed to the significant differences noted above, between males and females, in traffic deaths and death rates in age groups 1-39, and 42 and above. One approach to this problem is to apply the death rate obtained for each age or age interval of the male population to the corresponding age or age interval of the female population, and obtain an age-adjusted or "standardized" average male death rate in the female population, now considered as the "standard" population. This procedure controls for differences in population composition between males and females relative to age, and produces an age-adjusted or age-standardized average male death rate which is directly comparable to the average female death rate for the age group in question. Application of this procedure to the traffic mortality and population data for calendar year 1992 indicates the following:

1. For ages 1-39, the differences for males in the standard (female) versus the actual (male) population were only slight: a total of 16,786 vs. 17,157 traffic deaths, respectively, with an associated age-adjusted²⁰ traffic crash death rate of 22.4 vs. an unadjusted rate of 22.3.

2. For ages 42 and above, the differences for males in the standard versus the actual population were significant: a total of 11,831 vs. 9,170 traffic deaths, respectively, with an associated age-adjusted risk of traffic death of 23.7 vs. an unadjusted risk of 21.9.

3. Therefore, for ages 42 and above as compared to ages 1-39 in the standard population, note the following differences in male traffic crash deaths and death rate that would have occurred in 1992:

a) A 30% decrease in deaths (from 16,786 to 11,831), rather than the 47% decrease (from 17,157 to 9,170) that actually did occur.

b) A 6% increase in the risk of traffic death (from 22.4 to 23.7), rather than the 2% decrease (from 22.3 to 21.9) that actually did occur.

4. It should also be noted that increased longevity for both sexes could result in significant increases in traffic deaths for older persons. This is based on the assumption that death occurrence rates for older persons involved in traffic crashes will not change appreciably with increased longevity. As indicated above, if in the U.S. in 1992 men had lived as long as women, this could have resulted in about 11,830 male traffic deaths for ages 42 and above. This represents a 29% increase over the 9,170 male traffic deaths which actually did occur at these ages, with an associated 8% increase in the male risk of traffic death from 21.9 to 23.7 deaths per 100,000 males in the population.

²⁰ Age-adjusted as indicated above. For additional details, see Reference 8 or 9.

**Table 5a. Deaths, Percents of Total Deaths and Death Rates for Motor Vehicle Traffic Crashes by Specific Ages and Sex. Comparison with Leading or Second Leading Cause of Death for Each Age Group
United States, 1992**

<u>Male</u>										
Motor Vehicle Traffic Crashes(a)					Leading or 2nd Leading Cause of Death(a)					
Age Group	Rank Order(b)	Number of Deaths©	% of Total for Age Group	% of Total for M.V.T.A.	Death Rate(d)	Cause of Death	Rank	Ratio Deaths	(2)/(8)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Under 1	16	90	0.5	0.3	4.4	Perinatal Cond.	1	8,727	0.01	
1	4	84	5.9	0.3	4.1	Nontransport Acc.	1	290	0.29	
2-5	2-3	435	15.0	1.6	5.6	"	1	832	0.52	
6-9,11-13	1	783	23.7	2.9	6.0	"	2	623	1.26	
10	2	78	19.3	0.3	4.0	"	1	83	0.94	
14-18,20-22	1	5,223	28.6	19.2	35.6	Homicide	2	4,720	1.11	
19,23-27	2	4,153	22.1	15.3	36.2	"	1	4,270	0.97	
28-34	2-3	4,106	12.5	15.1	26.7	HIV Infection	1	7,770	0.53	
35-41	4-6	3,068	7.2	11.3	21.5	"	1	9,417	0.33	
42-56,58	6-11	4,038	3.0	14.9	18.5	Heart Disease	1	38,551	0.10	
57,59-68	9-16	1,987	0.9	7.3	18.8	Cancer	1	74,139	0.03	
69-100+	16-49	3,145	0.5	11.6	33.5	Heart Disease	1	237,987	0.01	

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of deaths for each age of age-sex group.

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(d) Crude rate per 100,000 population in age-sex group.

Table 5b. Deaths, Percents of Total Deaths and Death Rates for Motor Vehicle Traffic Crashes by Specific Ages and Sex. Comparison with Leading or Second Leading Cause of Death for Each Age Group United States, 1992

Female

Age Group	Motor Vehicle Traffic Crashes(a)				Leading or 2nd Leading Cause of Death(a)					
	Rank Order(b)	Number of Deaths©	% of Total for Age Group	% of Total for M.V.T.A.	Death Rate(d)	Cause of Death	Rank	Deaths	Ratio (2)/(8)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Under 1	14	66	0.4	0.5	3.4	Perinatal Cond.	1	6,835	0.01	
1	3	78	6.3	0.6	4.0	Nontransport Acc.	1	231	0.34	
2-4	2	235	13.7	1.8	4.2	"	1	337	0.70	
5	1	87	23.0	0.7	4.8	"	2	64	1.36	
6-10	1	289	20.8	2.3	3.2	Cancer	2	223	1.30	
11	1	48	17.5	0.4	2.7	Nontransport Acc.	2	43	1.12	
12-14	1	236	22.0	1.8	4.5	Cancer	2	150	1.57	
15-26	1	3,274	31.1	25.7	15.3	Homicide	2	1,455	2.25	
27-28	1	454	17.4	3.6	11.2	Cancer	2	387	1.17	
29-39	2-4	2,091	9.0	16.4	8.7	"	1	5,621	0.37	
40-49	3-6	1,404	3.9	11.0	8.1	"	1	14,470	0.10	
50-72	7-18	2,549	0.9	20.0	9.9	"	1	108,705	0.02	
73 & above	17-52	1,952	0.3	15.3	18.3	Heart Disease	1	279,220	0.01	

Data Sources: National Center for Health Statistics and Bureau of the Census.

- (a) Ninth Revision, International Classification of Diseases, 1975.
- (b) Rank based on number of deaths for each age of age-sex group.
- © Residents of the U.S. only (50 States and the District of Columbia).
- (d) Crude rate per 100,000 population in age-sex group.

Table 5c. Deaths, Percents of Total Deaths and Death Rates for Motor Vehicle Traffic Crashes by Specific Ages and Sex. Comparison with Leading or Second Leading Cause of Death for Each Age Group United States, 1992

Both Sexes

Age Group	Motor Vehicle Traffic Crashes(a)				Leading or 2nd Leading Cause of Death(a)					
	Rank Order(b)	Number of Deaths©	% of Total for Age Group	% of Total for M.V.T.A.	Death Rate(d)	Cause of Death	Rank	Deaths	Ratio (2)/(8)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Under 1	16	156	0.5	0.4	3.9	Perinatal Cond.	1	15,562	0.01	
1	4	162	6.1	0.4	4.1	Nontransport Acc.	1	521	0.31	
2-4	2-3	559	13.6	1.4	4.8	"	1	1,048	0.53	
5-13	1	1,525	22.1	3.8	4.6	"	2	1,191	1.28	
14-27	1	12,969	26.3	32.5	25.3	Homicide	2	10,648	1.22	
28-38	2-5	8,147	10.4	20.4	17.1	HIV Infection	1	15,374	0.53	
39-41	5-6	1,671	6.0	4.2	14.0	Cancer	1	5,048	0.33	
42-56	4-9	5,659	3.0	14.2	13.2	"	1	60,962	0.09	
57-70	9-16	4,048	0.9	10.1	14.2	"	1	172,455	0.02	
71 & above	15-55	5,057	0.4	12.7	24.8	Heart Disease	1	512,071	0.01	

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Ninth Revision, International Classification of Diseases, 1975.

(b) Rank based on number of deaths for each age of age-sex group.

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(d) Crude rate per 100,000 population in age-sex group.

V. Traffic Crash Deaths and Death Rates for Older Persons

Even though traffic crashes, when compared to other causes of death for 1992, were not a major factor for males and females above the ages of 41 and 39, respectively, it is interesting to note that involvement in traffic crashes does not disappear with advancing age. This is especially true for females, as evidenced by the 1992 mortality experience. Thus, while less than 1% of all deaths occurring above these ages were due to traffic crashes, nonetheless the additional 9,170 male and 5,905 female traffic deaths that did occur amounted to 34% and 47%, respectively, of all male and female victims of these crashes (Tables 5a and 5b). For males, 67% of these additional traffic deaths occurred with a generally uniform distribution of death rates between the ages of 42 and 69 (Table 6a). For females, 60% of the additional deaths occurred, also with a fairly uniform risk, between the ages of 40 and 69 (Table 6b).

The above figures, however, can easily be misinterpreted in that they give no indication that the risk of death from traffic crashes, while decreasing as expected for middle-aged persons, actually increases for older-aged persons. Tables 6a and 6b, which list population death rates and other mortality statistics related to traffic crashes in 1992 by 5-year age groups for males and females, respectively, show this rate increase for persons aged 70 and above. Table 6c presents similar data for both sexes combined. This pattern of above average risk in traffic crashes for older persons is also clearly evident from Figure 3, which presents the same risk data as Table 6, but for each specific age in 1992.

These increased death rates for older persons generally occur for any given year. For males 70 and above in 1992, the traffic crash death rate was 34.8, or 59% above the average for males of all ages (34.8 vs. 21.9). Note that for males aged 42-69, on the other hand, this rate was 18.6 or about 15% below average. For females aged 70 and above in 1992, the rate was 17.3, or almost 77% above the average for females of all ages (17.3 versus 9.8). For females aged 40-69, the risk was only 8.8 or about 10% below average.

This above average risk of death from traffic crashes for older persons undoubtedly reflects to a great extent both the disproportionate increase in pedestrian deaths for these ages and the fact that older compared to younger persons are physically less able to withstand the trauma resulting from involvement in motor vehicle crashes. Thus, severe injuries sustained in these crashes by both older and younger persons are much more likely to prove fatal for the older person. It is estimated that while this increased risk or "age-related" trauma may account for nearly one-half of all traffic deaths at these older ages, this is only a very small portion of all traffic deaths that occur. For example, for 1992 the estimates are: of the 2,983 traffic deaths for males aged 70 and over, about 1,389 or 47% were due to the increased risk at this age; of the 2,375 traffic deaths for females aged 70 and above, about 1,165 or 49% were the result of increased risk due to age. However, these figures combined (1,389 + 1,165 = 2,554) amount to only slightly more than six percent of total traffic deaths for 1992.

**Table 6a. Deaths, Percents of Total Deaths and Death Rates for Motor Vehicle Traffic Crashes, by 5-Year Age Group and Sex
United States, 1992**

Male					
<u>Age Group</u>	<u>Rank Order(a)</u>	<u>Number of Deaths(b)</u>	<u>% of Total for Age Group</u>	<u>% of Total for M.V.T.A.</u>	<u>Death Rate©</u>
All Ages	8	27,221	2.4	100.0	21.9
0	16	90	0.5	0.3	4.4
1-4	3	408	10.7	1.5	5.1
5-9	1	535	24.0	2.0	5.7
10-14	1	617	21.7	2.3	6.7
15-19	1	3,191	29.7	11.7	36.3
20-24	1	4,107	26.6	15.1	42.3
25-29	2	3,108	17.2	11.4	30.7
30-34	2	2,896	11.7	10.6	26.1
35-39	6	2,295	7.7	8.4	21.9
40-44	6	1,780	5.3	6.5	19.2
45-49	7	1,374	3.8	5.1	18.2
50-54	8	1,112	2.6	4.1	19.0
55-59	10	918	1.6	3.4	18.3
60-64	10	887	1.0	3.3	18.1
65-69	15	889	0.7	3.3	19.9
70-74	16	942	0.6	3.5	25.8
75-79	21	829	0.5	3.0	32.6
80-84	20	725	0.5	2.7	50.0
85 & above	28	487	0.3	1.8	53.3

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Rank based on number of deaths in age-sex group.

(b) Residents of the U.S. only (50 States and the District of Columbia).

© Crude rate per 100,000 population in age-sex group.

**Table 6b. Deaths, Percents of Total Deaths and Death Rates for Motor Vehicle Traffic Crashes, by 5-Year Age Group and Sex
United States, 1992**

Female

<u>Age Group</u>	<u>Rank Order(a)</u>	<u>Number of Deaths(b)</u>	<u>% of Total for Age Group</u>	<u>% of Total for M.V.T.A.</u>	<u>Death Rate©</u>
All Ages	9	12,764	1.2	100.0	9.8
0	14	66	0.4	0.5	3.4
1-4	3	313	10.6	2.5	4.1
5-9	1	321	21.3	2.5	3.6
10-14	1	339	21.1	2.7	3.8
15-19	1	1,551	42.3	12.2	18.6
20-24	1	1,295	27.7	10.1	13.9
25-29	1	1,078	17.2	8.4	10.7
30-34	2	974	10.5	7.6	8.7
35-39	4	921	7.4	7.2	8.7
40-44	4	738	4.7	5.8	7.8
45-49	4	666	3.3	5.2	8.5
50-54	7	490	1.9	3.8	7.9
55-59	8	484	1.3	3.8	8.9
60-64	11	517	0.9	4.1	9.3
65-69	14	635	0.7	5.0	11.5
70-74	17	707	0.6	5.5	14.7
79-79	21	712	0.5	5.6	18.6
80-84	27	585	0.4	4.6	21.8
85 & above	39	371	0.1	2.9	15.6

Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Rank based on number of deaths in age-sex group.

(b) Residents of the U.S. only (50 States and the District of Columbia).

© Crude rate per 100,000 population in age-sex group.

**Table 6c. Deaths, Percents of Total Deaths and Death Rates for Motor Vehicle Traffic Crashes, by 5-Year Age Group and Sex
United States, 1992**

Both Sexes

<u>Age Group</u>	<u>Rank Order(a)</u>	<u>Number of Deaths(b)</u>	<u>% of Total for Age Group</u>	<u>% of Total for M.V.T.A.</u>	<u>Death Rate©</u>
All Ages	8	39,985	1.8	100.0	15.7
0	16	156	0.5	0.4	3.9
1-4	3	721	10.7	1.8	4.6
5-9	1	856	22.9	2.1	4.7
10-14	1	956	21.5	2.4	5.3
15-19	1	4,742	32.9	11.9	27.7
20-24	1	5,402	26.8	13.5	28.3
25-29	1	4,186	17.2	10.5	20.7
30-34	2	3,870	11.3	9.7	17.4
35-39	4	3,216	7.6	8.0	15.3
40-44	5	2,518	5.1	6.3	13.4
45-49	7	2,040	3.6	5.1	13.3
50-54	8	1,602	2.3	4.0	13.3
55-59	9	1,402	1.5	3.5	13.4
60-64	10	1,404	1.0	3.5	13.4
65-69	16	1,524	0.7	3.8	15.3
70-74	15	1,649	0.6	4.1	19.5
75-79	22	1,541	0.5	3.9	24.1
80-84	25	1,310	0.4	3.3	31.7
85 & above	34	858	0.2	2.1	26.0

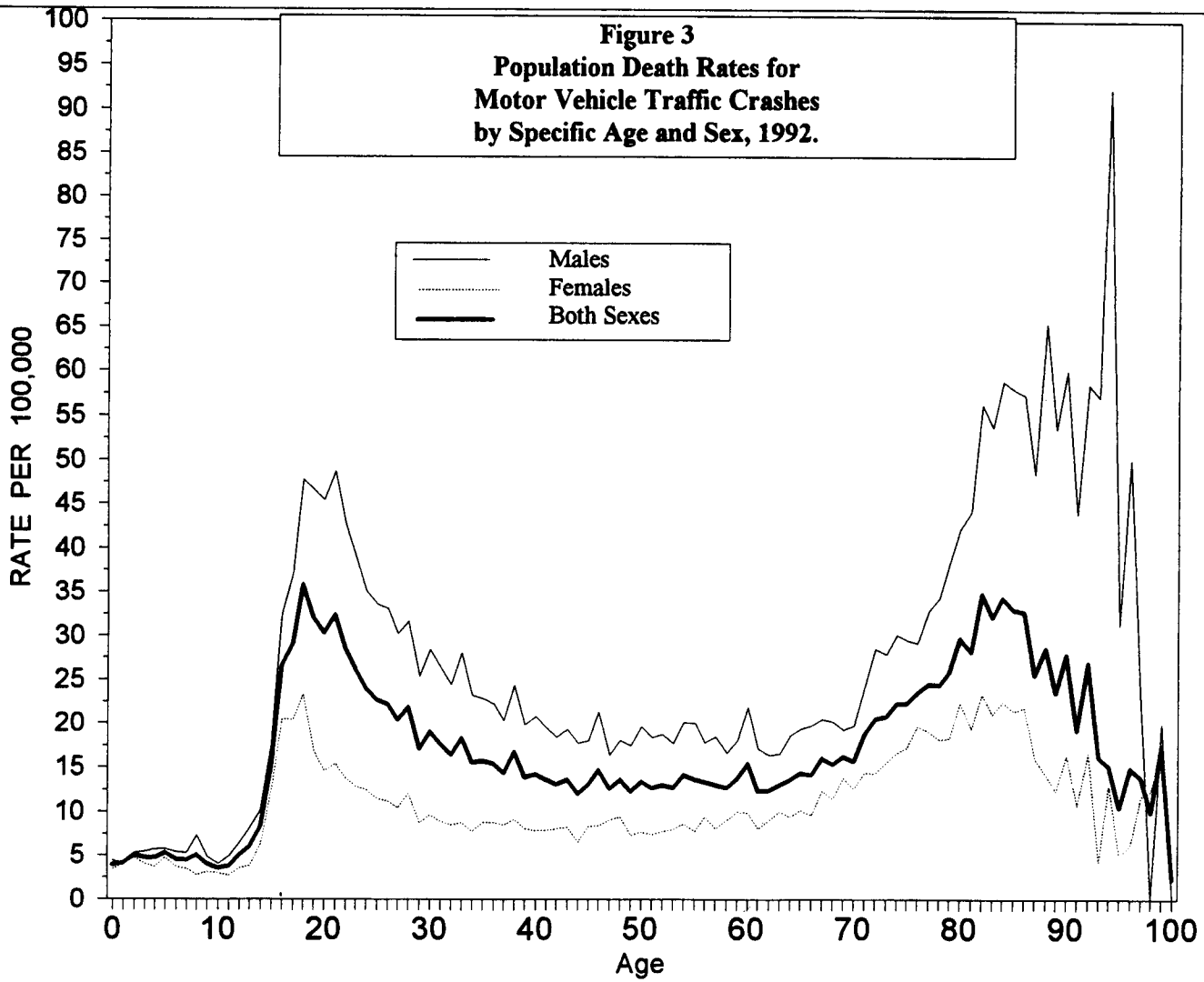
Data Sources: National Center for Health Statistics and Bureau of the Census.

(a) Rank based on number of deaths in age group.

(b) Residents of the U.S. only (50 States and the District of Columbia).

© Crude rate per 100,000 population in age group.

Figure 3
Population Death Rates for
Motor Vehicle Traffic Crashes
by Specific Age and Sex, 1992.



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Appendix

Table 1. List of 63 Single and Aggregated Causes of Death Adopted by the NCSA for Cause-of-Death Ranking¹

Cause of Death	ICD Codes
Intestinal Infectious Diseases	001-009
Tuberculosis, all forms	010-018, 137
Septicemia	038
Human Immunodeficiency Virus Infection	042-044
Other Viral Diseases	045-079, 138
Other Infectious and Parasitic Diseases	020-037, 039-041, 080-136, 139
Malignant Neoplasms (Cancer)	140-208
Benign Neoplasms (including Carcinoma in Situ)	210-234
Neoplasms of Uncertain Behavior and Unspecified Nature	235-239
Diabetes Mellitus	250
Diseases of Thyroid and Other Endocrine Glands	240-246, 251-259
Nutritional Deficiencies	260-269
Other Metabolic and Immunity Disorders	270-279
Anaemias	280-285
Other Diseases of Blood and Blood-Forming Organs	286-289
Alcohol Dependence	303
Other Neuroses	300-302, 304-316
Psychoses and Mental Retardation	290-299, 317-319
Meningitis	320-322
Parkinson's Disease	332

Table 1. List of 63 Single and Aggregated Causes of Death Adopted by the NCSA for Cause-of-Death Ranking¹ (continued)

Cause of Death	ICD Codes
Multiple Sclerosis	340
Epilepsy	345
Other Diseases of Nervous System and Sense Organs	323-331, 333-337, 341-344, 346-389
Diseases of the Heart	390-398, 402, 404-429
Hypertension, with or without Renal Disease	401, 403
Cerebrovascular Diseases (Stroke)	430-438
Atherosclerosis	440
Aortic Aneurysm	441
Other Diseases of Arteries, Arterioles, and Capillaries	442-448
Diseases of Veins and Lymphatics	451-459
Acute Bronchitis and Bronchiolitis	466
Other Diseases of Upper Respiratory Tract	460-465, 470-478
Pneumonia	480-486
Influenza	487
Chronic Obstructive Pulmonary Diseases and Allied Conditions	490-496
Pneumoconioses and Other Lung Diseases due to External Agents	500-508
Other Diseases of Respiratory System	510-519
Ulcer of Stomach and Duodenum	531-533
Hernia and Intestinal Obstruction without mention of Hernia	550-553, 560
Noninfective Enteritis and Colitis	555-558

Table 1. List of 63 Single and Aggregated Causes of Death Adopted by the NCSA for Cause-of-Death Ranking¹ (continued)

Cause of Death	ICD Codes
Diverticula of Intestine	562
Chronic Liver Disease and Cirrhosis	571
Cholelithiasis and Other Disorders of Gallbladder	574-575
Diseases of Pancreas	577
Other Digestive Diseases	520-530, 534-543, 564-570, 572-573, 576, 578-579
Nephritis, Nephrotic Syndrome and Nephrosis	580-589
Infections of Kidney	590
Other Diseases of Urinary System	591-599
Diseases of Genital Organs (and Breast)	600-629
Complications of Pregnancy, Childbirth, and the Puerperium	630-676
Diseases of the Skin and Subcutaneous Tissue	680-709
Arthropathies and Related Disorders	710-719
Other Musculoskeletal and Connective Tissue Diseases	720-739
Congenital Anomalies	740-759
Certain Conditions Originating in the Perinatal Period	760-779
Symptoms, Signs, and Ill-Defined Conditions	780-799
Motor Vehicle Traffic Crashes ²	E810-E819
Motor Vehicle Nontraffic Crashes ³	E800-E807, E826-E848
Nontransport Accidents ⁴	E820-E825
Other Transport Crashes ⁵	E850-E949

Table 1. List of 63 Single and Aggregated Causes of Death Adopted by the NCSA for Cause-of-Death Ranking¹ (continued)

Cause of Death	ICD Codes
Suicide	E950-E959
Homicide and Legal Intervention	E960-E978
Injury Unknown If Accidentally or Purposely Inflicted	E980-E999

¹ Ninth Revision, International Classification of Diseases, 1975.

² Any transport crash involving a motor vehicle which originates from and/or terminates on a public roadway.

³ Any transport crash involving a motor vehicle which occurs entirely off the public roadway.

⁴ Accidents due to poisoning, surgical misadventures, falls, fire and flames, natural and environmental factors, submersion, suffocation, firearms, machinery, overexertion, etc.

⁵ Any transport crash involving aircraft, watercraft, railway trains, or other road vehicles, but excluding crashes involving motor vehicles and railway trains, or motor vehicles and other road vehicles.

Table 2. List of 38 Single and Aggregated Causes of Death Adopted by the NCHS for Cause-of-Death Ranking¹

Cause of Death ²	ICD Codes
Shigellosis and Amebiasis	004, 006
Tuberculosis	010-018
Whooping Cough	033
Streptococcal Sore Throat, Scarletina, and Erysipelas	034-035
Meningococcal Infection	036
Septicemia	038
Human Immunodeficiency Virus (HIV) Infection	042-044
Acute Poliomyelitis	045
Measles	055
Viral Hepatitis	070
Syphilis	090-097
Malignant Neoplasms, including Neoplasms of Lymphatic and Hematopoietic Tissues	140-208
Benign Neoplasms, Carcinoma in Situ, and Neoplasms of Uncertain Behavior and of Unspecified Nature	210-239
Diabetes Mellitus	250
Nutritional Deficiencies	260-269
Anemias	280-285
Meningitis	320-322
Diseases of Heart	390-398, 402, 404-429
Hypertension with or without Renal Disease	401,403
Cerebrovascular Diseases	430-438

Table 2. List of 38 Single and Aggregated Causes of Death Adopted by the NCHS for Cause-of-Death Ranking¹ (continued)

Cause of Death²	ICD Codes
Atherosclerosis	440
Acute Bronchitis and Bronchiolitis	466
Pneumonia and Influenza	480-487
Chronic Obstructive Pulmonary Diseases and Allied Conditions	490-496
Ulcer of Stomach and Duodenum	531-533
Appendicitis	540-543
Hernia of Abdominal Cavity and Intestinal Obstruction without mention of Hernia	550-553, 560
Chronic Liver Disease and Cirrhosis	571
Cholelithiasis and Other Disorders of Gallbladder	574-575
Nephritis, Nephrotic Syndrome, and Nephrosis	580-589
Infections of Kidney	590
Hyperplasia of Prostate	600
Complications of Pregnancy, Childbirth, and the Puerperium	630-676
Congenital Anomalies	740-759
Certain Conditions Originating in the Perinatal Period	760-779
Accidents and Adverse Effects	E800-E949
Suicide	E950-E959
Homicide and Legal Intervention	E960-E978

¹ Based on 37 categories from the NCHS List of 72 Selected Causes of Death, and HIV. See Reference 10, Tables 7-11, for listings of the 72 selected causes by age and race-sex group.

² Ninth Revision, International Classification of Diseases, 1975.

Table 3.

***** LEADING CAUSES OF DEATH BY AGE AND SEX *****
 ***** RESIDENT DEATHS, UNITED STATES, 1992 *****
 ***** SUMMARY REPORT *****

5-YR Age Groups to Age 85+, Not Stated (20)

AGE GROUP	CAUSE OF DEATH	TOTAL				MALE				FEMALE			
		RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE
ALL AGES	DISEASES OF THE HEART	1	717,706	32.99	281.4	1	357,545	31.86	287.3	1	360,161	34.19	275.8
	MALIGNANT NEOPLASMS (CANCER)	2	520,578	23.93	204.1	2	274,838	24.49	220.8	2	245,740	23.33	188.2
	CEREBROVASCULAR DISEASES (STROKE)	3	143,769	6.61	56.4	3	56,645	5.05	45.5	3	87,124	8.27	66.7
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	4	91,938	4.23	36.0	4	50,465	4.50	40.5	4	41,473	3.94	31.8
	PNEUMONIA	5	74,713	3.43	29.3	5	35,127	3.13	28.2	5	39,586	3.76	30.3
	DIABETES MELLITUS	6	50,067	2.30	19.6	10	21,672	1.93	17.4	6	28,395	2.70	21.7
	NONTRANSPORT ACCIDENTS	7	42,966	1.97	16.8	7	27,467	2.45	22.1	8	15,499	1.47	11.9
	MOTOR VEHICLE TRAFFIC CRASHES	8	39,985	1.84	15.7	8	27,221	2.43	21.9	9	12,764	1.21	9.8
	HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION	9	33,566	1.54	13.2	6	29,325	2.61	23.6	28	4,241	0.40	3.2
UNDER 1	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	1	15,562	44.94	390.9	1	8,727	44.65	429.1	1	6,835	45.32	351.1
	CONGENITAL ANOMALIES	2	7,449	21.51	187.1	2	4,034	20.64	198.3	2	3,415	22.64	175.4
	SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS	3	5,838	16.86	146.6	3	3,507	17.94	172.4	3	2,331	15.45	119.7
	DISEASES OF THE HEART	4	716	2.07	28.0	4	383	1.96	18.8	4	333	2.21	17.1
	NONTRANSPORT ACCIDENTS	5	654	1.89	16.4	5	369	1.89	18.1	5	285	1.89	14.6
	PNEUMONIA	6	592	1.71	14.9	6	350	1.79	17.2	6	242	1.60	12.4
	MOTOR VEHICLE TRAFFIC CRASHES	16	156	0.45	3.9	16	90	0.46	4.4	14	66	0.44	3.4
1- 4	NONTRANSPORT ACCIDENTS	1	1,569	23.20	10.1	1	1,001	26.28	12.6	1	568	19.22	7.5
	CONGENITAL ANOMALIES	2	856	12.66	5.5	2	460	12.08	5.8	2	396	13.40	5.2
	MOTOR VEHICLE TRAFFIC CRASHES	3	721	10.66	4.6	3	408	10.71	5.1	3	313	10.59	4.1
	MALIGNANT NEOPLASMS (CANCER)	4	479	7.08	3.1	4	248	6.51	3.1	4	231	7.82	3.0
	HOMICIDE AND LEGAL INTERVENTION	5	430	6.36	2.8	5	242	6.35	3.0	5	188	6.36	2.5
	OTHER DISEASES OF NERVOUS SYSTEM AND SENSE ORGANS	6	372	5.50	2.4	6	196	5.15	2.5	6	176	5.96	2.3
5- 9	MOTOR VEHICLE TRAFFIC CRASHES	1	856	22.89	4.7	1	535	23.98	5.7	1	321	21.29	3.6
	NONTRANSPORT ACCIDENTS	2	679	18.16	3.7	2	458	20.53	4.9	3	221	14.66	2.5
	MALIGNANT NEOPLASMS (CANCER)	3	557	14.90	3.0	3	318	14.25	3.4	2	239	15.85	2.7
	CONGENITAL ANOMALIES	4	245	6.55	1.3	5	125	5.60	1.3	4	120	7.96	1.3
	OTHER DISEASES OF NERVOUS SYSTEM AND SENSE ORGANS	5	230	6.15	1.3	4	131	5.87	1.4	5	99	6.56	1.1
	HOMICIDE AND LEGAL INTERVENTION	6	146	3.90	0.8	6	78	3.50	0.8	6	68	4.51	0.8

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Table 3. (Continued):

***** LEADING CAUSES OF DEATH BY AGE AND SEX *****
 ***** RESIDENT DEATHS, UNITED STATES, 1992 *****
 ***** SUMMARY REPORT *****

AGE GROUP	CAUSE OF DEATH	TOTAL				MALE				FEMALE			
		RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE
10-14	MOTOR VEHICLE TRAFFIC CRASHES	1	956	21.46	5.3	1	617	21.66	6.7	1	339	21.12	3.8
	NONTRANSPORT ACCIDENTS	2	685	15.38	3.8	2	513	18.01	5.5	3	172	10.72	1.9
	MALIGNANT NEOPLASMS (CANCER)	3	548	12.30	3.0	3	319	11.20	3.4	2	229	14.27	2.6
	HOMICIDE AND LEGAL INTERVENTION	4	441	9.90	2.4	4	297	10.42	3.2	4	144	8.97	1.6
	SUICIDE	5	304	6.83	1.7	5	224	7.86	2.4	7	80	4.98	0.9
	OTHER DISEASES OF NERVOUS SYSTEM AND SENSE ORGANS	6	247	5.55	1.4	6	145	5.09	1.6	5	102	6.36	1.2
	CONGENITAL ANOMALIES	7	203	4.56	1.1	7	113	3.97	1.2	6	90	5.61	1.0
15-19	MOTOR VEHICLE TRAFFIC CRASHES	1	4,742	32.91	27.7	1	3,191	29.69	36.3	1	1,551	42.33	18.6
	HOMICIDE AND LEGAL INTERVENTION	2	3,302	22.91	19.3	2	2,865	26.66	32.6	2	437	11.93	5.2
	SUICIDE	3	1,847	12.82	10.8	3	1,560	14.52	17.7	3	287	7.83	3.4
	NONTRANSPORT ACCIDENTS	4	1,258	8.73	7.3	4	1,066	9.92	12.1	5	192	5.24	2.3
	MALIGNANT NEOPLASMS (CANCER)	5	738	5.12	4.3	5	458	4.26	5.2	4	280	7.64	3.4
	DISEASES OF THE HEART	6	333	2.31	1.9	6	231	2.15	2.6	6	102	2.78	1.2
20-24	MOTOR VEHICLE TRAFFIC CRASHES	1	5,402	26.83	28.3	1	4,107	26.57	42.3	1	1,295	27.69	13.9
	HOMICIDE AND LEGAL INTERVENTION	2	4,717	23.42	24.8	2	4,026	26.04	41.5	2	691	14.77	7.4
	SUICIDE	3	2,846	14.13	14.9	3	2,484	16.07	25.6	4	362	7.74	3.9
	NONTRANSPORT ACCIDENTS	4	1,685	8.37	8.8	4	1,392	9.00	14.3	5	293	6.26	3.1
	MALIGNANT NEOPLASMS (CANCER)	5	1,071	5.32	5.6	5	626	4.05	6.4	3	445	9.51	4.8
	DISEASES OF THE HEART	6	635	3.15	3.3	6	395	2.55	4.1	6	240	5.13	2.6
25-29	MOTOR VEHICLE TRAFFIC CRASHES	1	4,186	17.22	20.7	2	3,108	17.24	30.7	1	1,078	17.16	10.7
	HOMICIDE AND LEGAL INTERVENTION	2	3,916	16.11	19.4	1	3,140	17.41	31.0	3	776	12.35	7.7
	HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION	3	3,396	13.97	16.8	3	2,848	15.79	28.1	4	548	8.72	5.5
	SUICIDE	4	2,864	11.78	14.2	4	2,435	13.50	24.0	5	429	6.83	4.3
	NONTRANSPORT ACCIDENTS	5	2,113	8.69	10.5	5	1,762	9.77	17.4	7	351	5.59	3.5
	MALIGNANT NEOPLASMS (CANCER)	6	1,776	7.30	8.8	6	881	4.89	8.7	2	895	14.25	8.9
	DISEASES OF THE HEART	7	1,119	4.60	5.5	7	693	3.84	6.8	6	426	6.78	4.2
30-34	HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION	1	7,030	20.58	31.6	1	6,117	24.60	55.2	3	913	9.81	8.2
	MOTOR VEHICLE TRAFFIC CRASHES	2	3,870	11.33	17.4	2	2,896	11.65	26.1	2	974	10.47	8.7
	MALIGNANT NEOPLASMS (CANCER)	3	3,527	10.32	15.9	6	1,690	6.80	15.2	1	1,837	19.74	16.5
	HOMICIDE AND LEGAL INTERVENTION	4	3,427	10.03	15.4	3	2,692	10.83	24.3	4	735	7.90	6.6
	SUICIDE	5	3,308	9.68	14.9	4	2,667	10.73	24.1	6	641	6.89	5.7
	NONTRANSPORT ACCIDENTS	6	2,749	8.05	12.4	5	2,204	8.86	19.9	7	545	5.86	4.9
	DISEASES OF THE HEART	7	2,304	6.74	10.4	7	1,581	6.36	14.3	5	723	7.77	6.5

Table 3. (Continued):

***** LEADING CAUSES OF DEATH BY AGE AND SEX *****
 ***** RESIDENT DEATHS, UNITED STATES, 1992 *****
 ***** SUMMARY REPORT *****

AGE GROUP	CAUSE OF DEATH	TOTAL				MALE				FEMALE				
		RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE	
35-39	HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION	1	7,913	18.80	37.6	1	6,929	23.38	66.2	3	984	7.90	9.3	
	MALIGNANT NEOPLASMS (CANCER)	2	6,282	14.93	29.8	3	2,747	9.27	26.3	1	3,535	28.40	33.3	
	DISEASES OF THE HEART	3	4,350	10.34	20.6	2	3,181	10.73	30.4	2	1,169	9.39	11.0	
	MOTOR VEHICLE TRAFFIC CRASHES	4	3,216	7.64	15.3	6	2,295	7.74	21.9	4	921	7.40	8.7	
	SUICIDE	5	3,177	7.55	15.1	4	2,522	8.51	24.1	5	655	5.26	6.2	
	NONTRANSPORT ACCIDENTS	6	3,043	7.23	14.4	5	2,479	8.36	23.7	6	564	4.53	5.3	
40-44	MALIGNANT NEOPLASMS (CANCER)	1	10,600	21.54	56.4	3	4,777	14.32	51.5	1	5,823	36.75	61.2	
	DISEASES OF THE HEART	2	8,348	16.97	44.4	1	6,274	18.81	67.6	2	2,074	13.09	21.8	
	HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION	3	6,290	12.78	33.5	2	5,615	16.83	60.5	5	675	4.26	7.1	
	SUICIDE	4	2,832	5.76	15.1	4	2,158	6.47	23.3	6	674	4.25	7.1	
	MOTOR VEHICLE TRAFFIC CRASHES	5	2,518	5.12	13.4	6	1,780	5.34	19.2	4	738	4.66	7.8	
	NONTRANSPORT ACCIDENTS	6	2,500	5.08	13.3	5	2,049	6.14	22.1	8	451	2.85	4.7	
	CEREBROVASCULAR DISEASES (STROKE)	9	1,595	3.24	8.5	9	843	2.53	9.1	3	752	4.75	7.9	
	45-49	MALIGNANT NEOPLASMS (CANCER)	1	16,752	29.63	109.1	2	8,105	22.13	107.6	1	8,647	43.43	110.6
		DISEASES OF THE HEART	2	13,009	23.01	84.7	1	9,833	26.85	130.5	2	3,176	15.95	40.6
HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION		3	3,666	6.48	23.9	3	3,333	9.10	44.2	10	333	1.67	4.3	
SUICIDE		4	2,251	3.98	14.7	4	1,689	4.61	22.4	6	562	2.82	7.2	
CHRONIC LIVER DISEASE AND CIRRHOSIS		5	2,221	3.93	14.5	5	1,657	4.52	22.0	5	564	2.83	7.2	
CEREBROVASCULAR DISEASES (STROKE)		6	2,124	3.76	13.8	8	1,162	3.17	15.4	3	962	4.83	12.3	
MOTOR VEHICLE TRAFFIC CRASHES		7	2,040	3.61	13.3	7	1,374	3.75	18.2	4	666	3.34	8.5	
NONTRANSPORT ACCIDENTS		8	1,839	3.25	12.0	6	1,429	3.90	19.0	8	410	2.06	5.2	
50-54	MALIGNANT NEOPLASMS (CANCER)	1	24,454	35.70	202.9	2	12,498	29.30	213.4	1	11,956	46.26	192.9	
	DISEASES OF THE HEART	2	18,404	26.87	152.7	1	13,440	31.51	229.5	2	4,964	19.20	80.1	
	CEREBROVASCULAR DISEASES (STROKE)	3	2,667	3.89	22.1	5	1,427	3.35	24.4	3	1,240	4.80	20.0	
	CHRONIC LIVER DISEASE AND CIRRHOSIS	4	2,348	3.43	19.5	4	1,665	3.90	28.4	6	683	2.64	11.0	
	HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION	5	1,909	2.79	15.8	3	1,771	4.15	30.2	21	138	0.53	2.2	
	DIABETES MELLITUS	6	1,829	2.67	15.2	9	993	2.33	17.0	4	836	3.23	13.5	
	SUICIDE	7	1,767	2.58	14.7	6	1,310	3.07	22.4	8	457	1.77	7.4	
	MOTOR VEHICLE TRAFFIC CRASHES	8	1,602	2.34	13.3	8	1,112	2.61	19.0	7	490	1.90	7.9	
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	9	1,524	2.22	12.6	10	792	1.86	13.5	5	732	2.83	11.8	

Table 3. (Continued):

***** LEADING CAUSES OF DEATH BY AGE AND SEX *****
 ***** RESIDENT DEATHS, UNITED STATES, 1992 *****
 ***** SUMMARY REPORT *****

AGE GROUP	CAUSE OF DEATH	TOTAL				MALE				FEMALE			
		RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE
55-59	MALIGNANT NEOPLASMS (CANCER)	1	35,807	37.86	341.5	2	19,467	33.52	387.8	1	16,340	44.77	299.0
	DISEASES OF THE HEART	2	27,678	29.26	264.0	1	19,548	33.66	389.4	2	8,130	22.27	148.8
	CEREBROVASCULAR DISEASES (STROKE)	3	3,713	3.93	35.4	3	1,999	3.44	39.8	3	1,714	4.70	31.4
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	4	3,343	3.53	31.9	5	1,836	3.16	36.6	4	1,507	4.13	27.6
	DIABETES MELLITUS	5	2,802	2.96	26.7	6	1,431	2.46	28.5	5	1,371	3.76	25.1
	CHRONIC LIVER DISEASE AND CIRRHOSIS	6	2,644	2.80	25.2	4	1,875	3.23	37.4	6	769	2.11	14.1
	MOTOR VEHICLE TRAFFIC CRASHES	9	1,402	1.48	13.4	10	918	1.58	18.3	8	484	1.33	8.9
60-64	MALIGNANT NEOPLASMS (CANCER)	1	55,802	38.11	534.3	1	31,431	35.40	642.2	1	24,371	42.30	439.2
	DISEASES OF THE HEART	2	44,838	30.63	429.4	2	30,408	34.24	621.3	2	14,430	25.05	260.0
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	3	6,755	4.61	64.7	3	3,746	4.22	76.5	3	3,009	5.22	54.2
	CEREBROVASCULAR DISEASES (STROKE)	4	5,996	4.10	57.4	4	3,271	3.68	66.8	4	2,725	4.73	49.1
	DIABETES MELLITUS	5	4,307	2.94	41.2	5	2,126	2.39	43.4	5	2,181	3.79	39.3
	CHRONIC LIVER DISEASE AND CIRRHOSIS	6	3,136	2.14	30.0	6	2,106	2.37	43.0	6	1,030	1.79	18.6
	MOTOR VEHICLE TRAFFIC CRASHES	10	1,404	0.96	13.4	10	887	1.00	18.1	11	517	0.90	9.3
65-69	MALIGNANT NEOPLASMS (CANCER)	1	76,434	36.21	765.6	1	43,234	34.80	965.9	1	33,200	38.23	602.9
	DISEASES OF THE HEART	2	66,644	31.57	667.6	2	42,607	34.30	951.9	2	24,037	27.68	436.5
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	3	12,019	5.69	120.4	3	6,788	5.46	151.7	3	5,231	6.02	95.0
	CEREBROVASCULAR DISEASES (STROKE)	4	9,611	4.55	96.3	4	5,040	4.06	112.6	4	4,571	5.26	83.0
	DIABETES MELLITUS	5	6,253	2.96	62.6	5	2,908	2.34	65.0	5	3,345	3.85	60.7
	PNEUMONIA	6	3,832	1.82	38.4	6	2,304	1.85	51.5	6	1,528	1.76	27.7
	MOTOR VEHICLE TRAFFIC CRASHES	16	1,524	0.72	15.3	15	889	0.72	19.9	14	635	0.73	11.5
70-74	DISEASES OF THE HEART	1	89,885	33.68	1061.5	1	53,174	35.46	1456.4	2	36,711	31.40	762.1
	MALIGNANT NEOPLASMS (CANCER)	2	84,791	31.78	1001.3	2	47,039	31.37	1288.4	1	37,752	32.29	783.7
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	3	16,686	6.25	197.0	3	9,441	6.30	258.6	4	7,245	6.20	150.4
	CEREBROVASCULAR DISEASES (STROKE)	4	15,361	5.76	181.4	4	7,616	5.08	208.6	3	7,745	6.62	160.8
	DIABETES MELLITUS	5	7,723	2.89	91.2	6	3,468	2.31	95.0	5	4,255	3.64	88.3
	PNEUMONIA	6	6,260	2.35	73.9	5	3,667	2.45	100.4	6	2,593	2.22	53.8
	MOTOR VEHICLE TRAFFIC CRASHES	15	1,649	0.62	19.5	16	942	0.63	25.8	17	707	0.60	14.7

Table 3. (Continued):

***** LEADING CAUSES OF DEATH BY AGE AND SEX *****
 ***** RESIDENT DEATHS, UNITED STATES, 1992 *****
 ***** SUMMARY REPORT *****

AGE GROUP	CAUSE OF DEATH	TOTAL				MALE				FEMALE			
		RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE	RANK	DEATHS	%	DEATH RATE
75-79	DISEASES OF THE HEART	1	107,365	35.58	1681.8	1	56,950	35.99	2236.8	1	50,415	35.14	1313.6
	MALIGNANT NEOPLASMS (CANCER)	2	79,813	26.45	1250.2	2	43,427	27.44	1705.7	2	36,386	25.36	948.0
	CEREBROVASCULAR DISEASES (STROKE)	3	22,054	7.31	345.5	4	9,948	6.29	390.7	3	12,106	8.44	315.4
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	4	18,817	6.24	294.8	3	10,507	6.64	412.7	4	8,310	5.79	216.5
	PNEUMONIA	5	9,796	3.25	153.4	5	5,458	3.45	214.4	6	4,338	3.02	113.0
	DIABETES MELLITUS	6	8,029	2.66	125.8	6	3,396	2.15	133.4	5	4,633	3.23	120.7
	MOTOR VEHICLE TRAFFIC CRASHES	22	1,541	0.51	24.1	21	829	0.52	32.6	21	712	0.50	18.6
80-84	DISEASES OF THE HEART	1	119,373	38.74	2885.5	1	53,430	37.72	3682.3	1	65,943	39.61	2455.1
	MALIGNANT NEOPLASMS (CANCER)	2	62,835	20.39	1518.9	2	32,031	22.61	2207.5	2	30,804	18.50	1146.8
	CEREBROVASCULAR DISEASES (STROKE)	3	27,383	8.89	661.9	3	10,478	7.40	722.1	3	16,905	10.15	629.4
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	4	15,656	5.08	378.4	4	8,673	6.12	597.7	5	6,983	4.19	260.0
	PNEUMONIA	5	13,906	4.51	336.1	5	6,880	4.86	474.2	4	7,026	4.22	261.6
	DIABETES MELLITUS	6	7,062	2.29	170.7	6	2,651	1.87	182.7	6	4,411	2.65	164.2
	MOTOR VEHICLE TRAFFIC CRASHES	25	1,310	0.43	31.7	20	725	0.51	50.0	27	585	0.35	21.8
85 & OVER	DISEASES OF THE HEART	1	212,047	43.50	6433.5	1	65,053	40.35	7125.2	1	146,994	45.06	6168.4
	MALIGNANT NEOPLASMS (CANCER)	2	58,187	11.94	1765.4	2	25,473	15.80	2790.0	3	32,714	10.03	1372.8
	CEREBROVASCULAR DISEASES (STROKE)	3	50,983	10.46	1546.8	3	13,640	8.46	1494.0	2	37,343	11.45	1567.1
	PNEUMONIA	4	32,804	6.73	995.3	4	11,781	7.31	1290.4	4	21,023	6.44	882.2
	CHRONIC OBSTRUCTIVE PULMONARY DISEASES AND ALLIED CONDITIONS	5	15,004	3.08	455.2	5	7,552	4.68	827.2	5	7,452	2.28	312.7
	PSYCHOSES AND MENTAL RETARDATION	6	9,261	1.90	281.0	10	2,373	1.47	259.9	6	6,888	2.11	289.0
	NEPHRITIS, NEPHROTIC SYNDROME, AND NEPHROSIS	11	6,740	1.38	204.5	6	2,727	1.69	298.7	13	4,013	1.23	168.4
MOTOR VEHICLE TRAFFIC CRASHES	34	858	0.18	26.0	28	487	0.30	53.3	39	371	0.11	15.6	
NOT STATED	DISEASES OF THE HEART	1	88	18.57	****	2	53	14.89	****	1	35	29.66	****
	NONTRANSPORT ACCIDENTS	2	78	16.46	****	1	72	20.22	****	5	6	5.08	****
	SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS	3	58	12.24	****	3	43	12.08	****	3	15	12.71	****
	HOMICIDE AND LEGAL INTERVENTION	4	54	11.39	****	4	38	10.67	****	2	16	13.56	****
	MOTOR VEHICLE TRAFFIC CRASHES	5	32	6.75	****	5	31	8.71	****	13	1	0.85	****
	MALIGNANT NEOPLASMS (CANCER)	6	30	6.33	****	7	17	4.78	****	4	13	11.02	****
	INJURY UNKNOWN IF ACCIDENTALLY OR PURPOSELY INFLICTED	7	29	6.12	****	6	23	6.46	****	5	6	5.08	****