

Tennessee Accident Fatalities, 1946-50

By ANNA LOVE SULLIVAN, B.S.

ACCIDENTS caused the deaths of 9,095 residents of Tennessee during the 5 years 1946-50, or an average of 1,819 deaths per year. In this same period, accidents were the fourth principal cause of death in Tennessee for persons of all ages.

When considered by age groups, however, accidents were found to be the leading cause of death for persons 1-24 years, the second principal cause of death for persons in the age group 25-44, and the fifth principal cause for all persons 45 years of age and over. (See fig. 1.)

Motor vehicle accidents outnumbered all other types of accidents in Tennessee for the 5-year period under study. The number and percentage of deaths by type of accident are shown:

**Deaths From Accidents by Type
(1946-50)**

| Type | Deaths | Percentage |
|--------------------|--------|------------|
| Motor vehicle..... | 3,437 | 37.8 |
| Home..... | 3,072 | 33.8 |
| Other public..... | 1,821 | 20.0 |
| Occupational..... | 565 | 6.2 |
| Other..... | 200 | 2.2 |
| Total..... | 9,095 | 100.0 |

For Tennessee residents in the 1-24 age bracket, accidents caused more deaths over the 5-year period than did the other five leading causes of death combined. In this age group, accidental deaths numbered 2,739, while the total number of deaths was 2,687 for the next

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five leading causes of death—tuberculosis (second), influenza and pneumonia (third), malignant neoplasms (fourth), diseases of the heart (fifth), and homicides (sixth).

During 1946-50, 1,547 children under 15 died from all types of accidents, an average of 309 deaths for each of the 5 years.

The death rates according to type of accident resulting in death varied according to age. In young adults, the motor vehicle accident rate was very high, followed by a slightly lower rate for the age group 30-54 years. But these lower rates were followed by higher rates for persons 55 and over. For the age groups between 15-64 years, death rates from motor vehicle accidents were higher than were the rates for other types of accidents.

Home accidents caused many deaths in children below 10 years and resulted in a very high rate in old age. Occupational accidents caused approximately six deaths per 100,000 population per year for those 25 years of age and over.

Motor Vehicle Accidents

During 1946-50, on the average, 687 deaths per year from motor vehicle accidents were recorded. The trend of death rates since 1914 shows that deaths caused by motor vehicle accidents increased steadily until 1936, from the 1914 rate of 1.6 deaths per 100,000 population, to 27.9 in 1936. The high rate of 1936 was followed by lower rates, which are attributed to the restricted use of cars during World War II. Accident death rates since 1946 have again had a steady increase, reaching the rate of 25.9 in 1951.

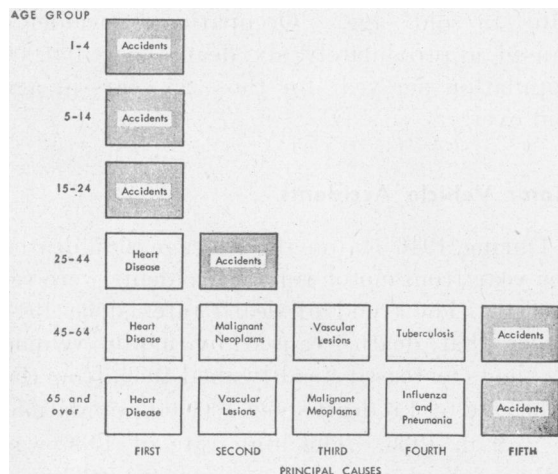
Collisions with other motor vehicles caused many accidents. Deaths from this type of accident numbered 965 or 28.1 percent of all motor vehicle accidents. Collisions with pedestrians caused 939 deaths (27.3 percent). Noncollision accidents killed 906 persons (26.4 percent), and other and unspecified motor vehicle accidents numbered 627 (18.2 percent).

The death rate for drivers was very high in the 10-34 age group, with the highest rate in the 15-24 group, indicating the need for accident prevention education in high schools. Accident death rates were very high for male drivers, higher than the rates for female drivers in all age groups.

The passenger death rate was also very high in the 15-24 age group. For pedestrians, the death rates were high in the older age groups with very high rates for males 65 and over.

The average annual death rates per 100,000 population by age and sex reveal a higher death rate for males in all age groups, with the highest rate (58.0) in the 15-24 age group. The next highest rate is that of males 65 and over. For females, the highest rate (14.3) occurs in the same age group, followed by the rate of 12.1 for the 55-64 group. Females 15-24 years of age had a rate of 11.6.

Figure 1. Relationship of accidents as principal cause of death to other causes, by age, Tennessee, 1946-50.



On the week end, the daily occurrence of accidents was higher than at any other time. The week-end increase started on Friday with 439 deaths (13.7 percent) occurring. The number

Useful Application of Data

That an aggressive program of accident prevention would help to save some lives is apparent from any study of routine accident data. Through dramatic use of accident statistics, the health department can inform members of its community about the needless tragedies caused by lack of caution in the home and on the highway.

Tennessee is doing just this. The accompanying paper is one illustration of how accident statistics can be usefully applied. Another illustration is the release in 1952 of a 20-page pamphlet "Stop Look Listen—Prevent Accidents" by the Tennessee Department of Public Health. The fatality statistics presented in this issue are a slight abridgment of the information contained in the pamphlet and reported in March 1952 to the Tennessee Public Health Association.

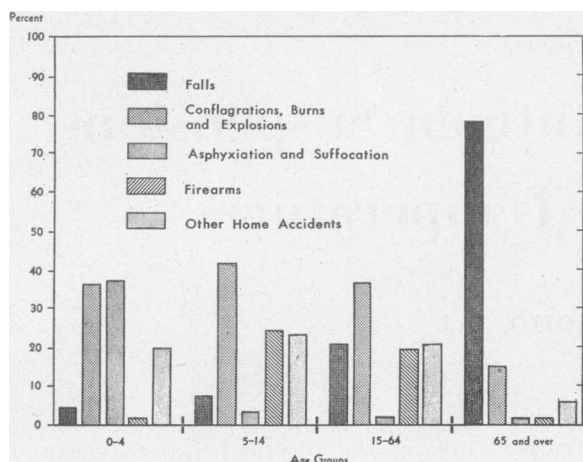
was greatest on Saturday (23.2 percent) and decreased to 18.0 percent on Sunday. Fewer accidents occurred on Tuesday, Wednesday, and Thursday, with a low of 10.4 percent on Thursday.

Average annual death rates per 100,000 population from motor vehicle accidents were also studied by counties for 1946-50. Very high rates were noted for 35 of the 95 counties in Tennessee. Davidson County, in which Nashville is located, had the highest rate (24.0) of four Tennessee counties (Davidson, Hamilton, Knox, and Shelby), containing the four largest cities. Shelby had the lowest rate, 15.9.

Home Accidents

Although persons of all ages are exposed to hazards in the home, the highest death rates from home accidents were found in the two age groups, under 5 years, and 65 and over. Falls were the most frequent cause of home accident deaths. Of the 1,332 deaths (43.4 percent) from falls, 1,124 (84.4 percent) of all falls occurred in the age group of 65 and over. Con-

Figure 2. Fatal home accidents by type and age group for 5 years, Tennessee, 1946-50.



flagrations, burns, and explosions came next with 818 deaths.

Accidental deaths from firearms were noted for all ages. Twelve deaths were those of children under 5; 53 deaths were in the age group of 5-14. For adults 15-64 years of age, 154 deaths were recorded.

Of the 818 deaths from conflagrations, burns, or explosions in the home, 439 were the result of fatal burns and explosions other than in a burning building. Many deaths (79) were caused by burns from open grates; half of these (39) were of persons in the age group 65 and over; and 14 were of children 0-4 years. Explosions caused 69 of the 439 deaths with the largest number occurring in the 25-44 age group. Scalds killed 53 with 19 deaths occurring in the age group 65 years and over. Burned fatally by stoves were 25 children under 5 years. The age group 65 and over had more deaths (140) of the total 439 than did any other age group. A total of 101 deaths, the next highest number, occurred to children 0-4 years.

For children under 15, over half of the 1,547

deaths from all types of accidents (866 or 56 percent) were from accidents in the home. There were 647 deaths of children under 5. Conflagrations and burns accounted for 233 deaths—*asphyxiation and suffocation* for 244.

Other Public Accidents

Many fatal accidents occur every year in public places. In Tennessee, there were 1,821 such deaths in the 5 years studied from other than motor vehicle accidents. They have been tabulated by transportation and nontransportation, and by type of accident.

Of the 608 deaths caused by transportation other than motor vehicles, 248 were from railroad accidents where no motor vehicles were involved, 181 were due to water transportation accidents, and 146 to air transportation.

Drownings occurred more frequently in June and July than in other months and caused 620 deaths in the 5-year period.

Occupational Accidents

Industrial or occupational accidents are defined as accidents arising out of or occurring in the course of gainful employment exclusive of injuries to domestic servants and to persons involved in public transportation accidents. Tennessee had 565 occupational accident deaths in the period studied.

Leading in occupational accidents were agricultural accidents. Of the total 565 fatalities, there were 152 accidental deaths in agriculture, an average of 30 per year. Ninety-seven deaths (a yearly average of 19) occurred in employment in transportation and public utilities; and 90 deaths (an average of 18 per year) in mining and quarrying industries. Manufacturing industries had the lowest number, 71—a yearly average of 14.

